

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

- ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2015
OR
 TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from _____ to _____

Commission file number: 000-21467

PACIFIC ETHANOL, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of incorporation or organization)

41-2170618
(I.R.S. Employer Identification No.)

400 Capitol Mall, Suite 2060, Sacramento, California
(Address of principal executive offices)

95814
(Zip Code)

Registrant's telephone number, including area code: (916) 403-2123

Securities registered pursuant to Section 12(b) of the Act:

Title of Class	Name of Exchange on Which Registered
Common Stock, \$0.001 par value	The Nasdaq Stock Market LLC (Nasdaq Capital Market)

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes No

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files. Yes No

Indicate by check mark if disclosure of delinquent filers in response to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer

Accelerated filer

Non-accelerated filer (Do not check if a smaller reporting company)

Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes No

The aggregate market value of the voting common equity held by nonaffiliates of the registrant computed by reference to the closing sale price of such stock, was approximately \$247.2 million as of June 30, 2015, the last business day of the registrant's most recently completed second fiscal quarter. The registrant had no non-voting common equity as of June 30, 2015.

As of March 14, 2016, there were 38,982,931 shares of the registrant's common stock \$0.001 par value per share, and 3,540,132 shares of the registrant's non-voting common stock \$0.001 par value per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE:

Part III incorporates by reference certain information from the registrant's proxy statement (the "Proxy Statement") for the 2016 Annual Meeting of Stockholders to be filed on or before April 29, 2016

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CAUTIONARY STATEMENT

All statements included or incorporated by reference in this Annual Report on Form 10-K, other than statements or characterizations of historical fact, are forward-looking statements. Examples of forward-looking statements include, but are not limited to, statements concerning projected net sales, costs and expenses and gross margins; our accounting estimates, assumptions and judgments; the demand for ethanol and its co-products; the competitive nature of and anticipated growth in our industry; production capacity and goals; our ability to consummate acquisitions and integrate their operations successfully; and our prospective needs for additional capital. These forward-looking statements are based on our current expectations, estimates, approximations and projections about our industry and business, management's beliefs, and certain assumptions made by us, all of which are subject to change. Forward-looking statements can often be identified by words such as "anticipates," "expects," "intends," "plans," "predicts," "believes," "seeks," "estimates," "may," "will," "should," "would," "could," "potential," "continue," "ongoing," similar expressions and variations or negatives of these words. These statements are not guarantees of future performance and are subject to risks, uncertainties and assumptions that are difficult to predict. Therefore, our actual results could differ materially and adversely from those expressed in any forward-looking statements as a result of various factors, some of which are listed under "Risk Factors" in Item 1A of this report. These forward-looking statements speak only as of the date of this report. We undertake no obligation to revise or update publicly any forward-looking statement for any reason, except as otherwise required by law.

PART I

Item 1. Business.

Business Overview

We are a leading producer and marketer of low-carbon renewable fuels in the United States.

We own and operate eight strategically-located ethanol production facilities. Four of our plants are in the Western states of California, Oregon and Idaho, or the Pacific Ethanol West plants; and four of our plants are located in the Midwestern states of Illinois and Nebraska, or the Pacific Ethanol Central plants. Our plants have a combined ethanol production capacity of 515 million gallons per year. We are the sixth largest producer of ethanol in the United States based on annualized volumes. We market all the ethanol and co-products produced at our eight plants as well as ethanol produced by third parties. On an annualized basis, we market over 800 million gallons of ethanol and over 1.5 million tons of ethanol co-products on a dry matter basis. Our business consists of two operating segments: a production segment and a marketing segment.

Our mission is to advance our position and significantly increase our market share as a leading producer and marketer of low-carbon renewable fuels in the United States. We intend to accomplish this goal in part by expanding our ethanol production capacity and distribution infrastructure, accretive acquisitions, lowering the carbon intensity of our ethanol, extending our marketing business into new regional and international markets, and implementing new technologies to promote higher production yields and greater efficiencies.

Production Segment

We produce ethanol and co-products at our eight production facilities described below. Our Pacific Ethanol West plants are located on the West Coast near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages. Our Pacific Ethanol Central plants are located in the Midwest in the heart of the Corn Belt, benefit from low-cost and abundant feedstock production and allow for access to many additional domestic markets. In addition, our ability to load unit trains from the Pacific Ethanol Central plants allows for greater access to international markets.

	Facility Name	Facility Location	Estimated Annual Capacity (gallons)
<i>Pacific Ethanol West</i>	Magic Valley	Burley, ID	60,000,000
	Columbia	Boardman, OR	40,000,000
	Stockton	Stockton, CA	60,000,000
	Madera	Madera, CA	40,000,000
<i>Pacific Ethanol Central</i>	Aurora West	Aurora, NE	110,000,000
	Aurora East	Aurora, NE	45,000,000
	Pekin Wet	Pekin, IL	100,000,000
	Pekin Dry	Pekin, IL	60,000,000

We produce ethanol co-products at our eight production facilities such as wet distillers grains, or WDG, dry distillers grains with solubles, or DDGS, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, distillers yeast and CO₂.

Marketing Segment

We market ethanol and co-products produced by our eight ethanol production facilities and market ethanol produced by third parties. We have extensive customer relationships throughout the Western and Midwestern United States. Our ethanol customers are integrated oil companies and gasoline marketers who blend ethanol into gasoline. Our customers depend on us to provide a reliable supply of ethanol, and manage the logistics and timing of delivery with very little effort on their part. Our customers collectively require ethanol volumes in excess of the supplies we produce at our eight production facilities. We secure additional ethanol supplies from third party plants in California and other third party suppliers in the Midwest where a majority of ethanol producers are located. We arrange for transportation, storage and delivery of ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We market our distillers grains and other feed co-products to dairies and feedlots, in many cases located near our ethanol plants. These customers use our feed co-products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers. We do not market co-products from other ethanol producers.

See “Note 5 – Segments” to our Notes to Consolidated Financial Statements included elsewhere in this report for financial information about our segments.

Acquisition of Aventine

On July 1, 2015, we consummated our acquisition of Aventine Renewable Energy Holdings, Inc., now known as Pacific Ethanol Central, LLC, or Aventine, under the terms of an Agreement and Plan of Merger dated as of December 30, 2014 by and among Pacific Ethanol, Inc., AVR Merger Sub, Inc., one of our wholly-owned subsidiaries, and Aventine. Under the terms of the acquisition, Aventine became one of our wholly-owned subsidiaries.

We believe the Aventine acquisition is resulting in a number of synergies and strategic advantages. We believe the acquisition has spread commodity and basis price risks across diverse markets and products, assisting in our efforts to optimize margin management; improve our hedging opportunities with a greater correlation to the liquid physical and paper markets in Chicago; and increase our flexibility and alternatives in feedstock procurement for our Midwest and Western production facilities. The acquisition also expands our marketing reach into new markets and extends our mix of co-products. We believe the acquisition will enable us to have deeper market insight and engagement in major ethanol and feed markets outside the Western United States, thereby improving pricing opportunities; allow us to establish access to markets in 48 states for ethanol sales and access many markets with ethanol and co-product sales reaching domestic and international customers; and enable us to use our more diverse mix of co-products to generate strong co-product returns. In addition, the acquisition increased our combined ethanol production capacity to 515 million gallons per year and increased our annualized ethanol marketing volume to over 800 million gallons.

Company History

We are a Delaware corporation formed in February 2005. Our common stock trades on The NASDAQ Capital Market under the symbol “PEIX.” Our Internet website address is <http://www.pacificethanol.com>. Information contained on our website is not part of this Annual Report on Form 10-K. Our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and any amendments to such reports filed with or furnished to the Securities and Exchange Commission and other Securities and Exchange Commission filings are available free of charge through our website as soon as reasonably practicable after the reports are electronically filed with, or furnished to, the Securities and Exchange Commission.

Business Strategy

Our primary goal is to advance our position and significantly increase our market share as a leading producer and marketer of low-carbon renewable fuels in the United States. The key elements of our business and growth strategy to achieve this objective include:

- *Expand ethanol production capacity and distribution infrastructure.* We believe the United States ethanol production industry is poised for consolidation. We evaluate and intend to pursue opportunities to acquire additional ethanol production, storage and distribution facilities and related infrastructure as financial resources and business prospects make these acquisitions desirable. To this end, we are examining specific opportunities to extend our current production and marketing platform with strategic and synergistic acquisitions. In addition, we plan to expand our distribution infrastructure by increasing our ability to provide transportation, storage and related logistical services to our customers throughout the United States.
- *Lower the carbon intensity of our ethanol.* We plan to further reduce the carbon intensity of the ethanol we produce. We are able to sell this lower carbon intensity ethanol in certain regions at premium prices compared to higher carbon intensity ethanol. We are able to charge premium prices for this ethanol based on state laws and regulations, such as Low-Carbon Fuel Standards enacted in California and Oregon that require blenders to use lower carbon intensity ethanol in their gasoline. When available and cost-effective, we intend to use feedstock other than corn, including cellulosic feedstock, as the raw material used in the production of ethanol to further reduce the carbon intensity of our ethanol.
- *Extend our marketing business into new regional and international markets.* We have strengthened our market position in the Midwest through our acquisition of Aventine. We intend to pursue opportunities to extend our marketing business into new regional markets within reach from Aventine's plants in Illinois and Nebraska. We also plan to leverage our new relationships with Aventine's customers to market and sell additional ethanol sourced from third parties. In addition, we are exploring opportunities to market and sell ethanol internationally.
- *Implement new technologies.* We intend to continue to evaluate and implement new equipment and technologies to increase the production yields and efficiencies of our ethanol plants, reduce our use of carbon-based fuels, use other feedstocks, and allow us to produce advanced biofuels as financial resources and market conditions justify these investments.

Competitive Strengths

We believe that our competitive strengths include the following:

- *Our customer and supplier relationships.* We have extensive business relationships with customers and suppliers in California and other Western states. We have also established extensive business relationships with new customers and suppliers in the Midwest through our acquisition of Aventine. In addition, we have developed extensive business relationships with major and independent un-branded gasoline suppliers who collectively control the majority of all gasoline sales in those regions.

· *Our ethanol distribution network.* We believe we have a competitive advantage due to our experience in marketing to customers in major metropolitan and rural markets in the Western United States. We have developed an ethanol distribution network for delivery of ethanol by truck to virtually every significant fuel terminal as well as to numerous smaller fuel terminals throughout California and other Western states. Fuel terminals have limited storage capacity and we have successfully secured storage tanks at many of the terminals we service. In addition, we have an extensive network of third-party delivery trucks available to deliver ethanol throughout the Western United States. In the Midwest, we have the benefit at our Nebraska facilities to sell and deliver products in bulk via unit trains providing us access to western, gulf coast and international import markets. Our Illinois facilities provide excellent logistical access via rail, truck and barge. Its relatively unique wet milling process allows us to extract the highest use and value from each component of the corn kernel. As a result, the wet milling process generates a higher level of cost recovery from corn than that produced at a dry mill. Further, the additional higher valued co-products can be sold at premium prices under fixed price, longer term contracts (up to 12 months) thus providing a more stable source of revenue in what can be a volatile commodity industry.

· *Our strategic locations.* We operate our eight ethanol plants in markets where we believe their individual locations, as well as our overall ethanol production and marketing platform, provide strategic advantages. Our production in both the Western United States and in the Midwest enables us to source ethanol from two different regions, which we believe will allow us to address regional inefficiencies and other challenges such as rail congestion and other supply constraints as well as pricing anomalies.

o *Pacific Ethanol West plants.* We operate the Pacific Ethanol West plants in the Western United States where we believe local characteristics create an opportunity to capture a significant production and shipping cost advantage over competing ethanol production facilities in other regions. We believe a combination of factors enable us to achieve this cost advantage, including:

- Locations near fuel blending facilities lower our ethanol transportation costs while providing timing and logistical advantages over competing locations that require ethanol to be shipped over much longer distances, and in many cases, require double-handling.
- Locations adjacent to major rail lines allow the efficient delivery of corn in large unit trains from major corn-producing regions, and allow for the efficient delivery of ethanol in large unit trains to other markets, including markets with higher demand.
- Locations near large concentrations of dairy and/or beef cattle enable delivery of WDG, over short distances without the need for costly drying processes.

o *Pacific Ethanol Central plants.* We operate the Pacific Ethanol Central plants in the Midwest which enables us to participate in the largest regional ethanol market in the United States as well as international markets. Our Midwest locations, coupled with our locations in the Western United States, also allow us many advantages over locations solely on the West Coast, including:

- Locations in diverse markets assist us in spreading commodity and basis price risks across markets and products, supporting our efforts to optimize margin management.
- Locations in the Midwest enhance our overall hedging opportunities with a greater correlation to the highly-liquid physical and paper markets in Chicago.

- Locations in diverse markets support heightened flexibility and alternatives in feedstock procurement for our various production facilities.
 - Locations in the Midwest allow us deeper market insight and engagement in major ethanol and feed markets outside the Western United States, thereby improving pricing opportunities.
- *Our low carbon-intensity ethanol.* California and Oregon have enacted Low-Carbon Fuel Standards for transportation fuels. Under these Low-Carbon Fuel Standards, the ethanol we produce at our production facilities in the Western United States has a lower carbon-intensity than most ethanol produced at plants by other producers. This is primarily because the Pacific Ethanol West plants use less energy in their production processes. The ethanol produced in California by other producers, all of which we market, also has a lower carbon-intensity rating than either gasoline or ethanol produced in the Midwest. The lower carbon-intensity rating of ethanol we produce at the Pacific Ethanol West plants or otherwise resell from third-party California producers is valued in the market by our customers and has enabled us to capture premium prices for this ethanol.
 - *Modern technologies.* Our Pacific Ethanol West plants use the latest production technologies to take advantage of state-of-the-art technical and operational efficiencies to achieve lower operating costs, higher yields and more efficient production of ethanol and its co-products and reduce our use of carbon-based fuels.
 - *Our experienced management.* Our senior management team has a proven track record with significant operational and financial expertise and many years of experience in the ethanol, fuel and energy industries. Our senior executives, who average approximately 15 years of industry experience, have successfully navigated a wide variety of business and industry-specific challenges and deeply understand of the business of successfully producing and marketing ethanol and its co-products.

We believe that these competitive strengths will help us attain our goal to advance our position and significantly increase our market share as a leading producer and marketer of low-carbon renewable fuels in the United States.

Industry Overview and Market Opportunity

Overview of Ethanol Market

The primary applications for fuel-grade ethanol in the United States include:

- *Octane enhancer.* On average, regular unleaded gasoline has an octane rating of 87 and premium unleaded gasoline has an octane rating of 91. In contrast, pure ethanol has an average octane rating of 113. Adding ethanol to gasoline enables refiners to produce greater quantities of lower octane blend stock with an octane rating of less than 87 before blending. In addition, ethanol is commonly added to finished regular grade gasoline as a means of producing higher octane mid-grade and premium gasoline.
- *Renewable fuels.* Ethanol is blended with gasoline in order to enable gasoline refiners to comply with a variety of governmental programs, in particular, the national Renewable Fuel Standard, or national RFS, which was enacted to promote alternatives to fossil fuels. See “—Governmental Regulation.”

Fuel blending. In addition to its performance and environmental benefits, ethanol is used to extend fuel supplies. In light of the need for transportation fuel in the United States and the dependence on foreign crude oil and refined products, the United States is increasingly seeking domestic sources of fuel. Much of the ethanol blending throughout the United States is done for the purpose of extending the volume of fuel sold at the gasoline pump.

The United States ethanol industry is supported by federal and state legislation and regulation. For example, the Energy Independence and Security Act of 2007, which was signed into law in December 2007, significantly increased the prior national RFS. Under the national RFS, the mandated use of all renewable fuels rises incrementally in succeeding years and peaks at 36.0 billion gallons by 2022. Under the national RFS, approximately 13.6 billion gallons in 2014 and 14.5 billion gallons in 2015 were required from conventional, or corn-based, ethanol. Under the national RFS, 14.4 billion gallons are required from conventional ethanol in 2016. The national RFS allows the Environmental Protection Agency, or EPA, to adjust the annual requirement based on certain facts.

According to the U.S. Energy Information Administration, the domestic ethanol industry produced a record of approximately 14.8 billion gallons of ethanol in 2015. We believe that the ethanol market in California alone represented approximately 10% of the national market. However, the Western United States has relatively few ethanol facilities and local ethanol production levels are substantially below the local demand for ethanol. The balance of ethanol is shipped via rail from the Midwest to the Western United States. Gasoline and diesel fuel that supply the major fuel terminals are shipped in pipelines throughout portions of the Western United States. Unlike gasoline and diesel fuel, however, ethanol is not shipped in these types of pipelines because ethanol has an affinity for mixing with water already present in the pipelines. When mixed, water dilutes ethanol and creates significant quality control issues. Therefore, ethanol must be trucked from rail terminals to regional fuel terminals, or blending racks.

We believe that approximately 90% of the ethanol produced in the United States is made in the Midwest from corn. According to the Department of Energy, or DOE, ethanol is generally blended at a rate of 10% by volume, but is also blended at a rate of up to 85% by volume for vehicles designed to operate on 85% ethanol. The EPA has increased the allowable blend of ethanol in gasoline from 10% by volume to 15% by volume for model year 2001 and newer automobiles, pending final approvals by certain state regulatory authorities. Some retailers have begun blending at higher rates in states that have approved higher blend rates.

Compared to gasoline, ethanol is generally considered to be cleaner burning and contains higher octane. We anticipate that the increasing demand for renewable transportation fuels coupled with limited opportunities for gasoline refinery expansions and the growing importance of reducing CO₂ emissions through the use of renewable fuels will generate additional growth in the demand for ethanol.

According to the DOE, total annual gasoline consumption in the United States is approximately 140 billion gallons and total annual ethanol consumption represented approximately 10% of this amount in 2014. The domestic ethanol industry has substantially reached this 10% blend ratio, and we believe the industry has significant potential for growth as the industry migrates to an up to 15% blend ratio, which would translate into an annual demand of up to 20 billion gallons of ethanol.

Overview of Ethanol Production Process

Ethanol production from starch- or sugar-based feedstock is a highly-efficient process that we believe now yields substantially more energy from ethanol and its co-products than is required to make the products. The modern production of ethanol requires large amounts of corn, or other high-starch grains, and water as well as chemicals, enzymes and yeast, and denaturants including unleaded gasoline or liquid natural gas, in addition to natural gas and electricity.

Dry Milling Process

In the dry milling process, corn or other high-starch grain is first ground into meal, then slurried with water to form a mash. Enzymes are then added to the mash to convert the starch into the simple sugar, dextrose. Ammonia is also added for acidic (pH) control and as a nutrient for the yeast. The mash is processed through a high temperature cooking procedure, which reduces bacteria levels prior to fermentation. The mash is then cooled and transferred to fermenters, where yeast is added and the conversion of sugar to ethanol and CO₂ begins.

After fermentation, the resulting “beer” is transferred to distillation, where the ethanol is separated from the residual “stillage.” The ethanol is concentrated to 190 proof using conventional distillation methods and then is dehydrated to approximately 200 proof, representing 100% alcohol levels, in a molecular sieve system. The resulting anhydrous ethanol is then blended with about 2.5% denaturant, which is usually gasoline, and is then ready for shipment to market.

The residual stillage is separated into a coarse grain portion and a liquid portion through a centrifugation process. The soluble liquid portion is concentrated to about 40% dissolved solids by an evaporation process. This intermediate state is called condensed distillers solubles, or syrup. The coarse grain and syrup portions are then mixed to produce WDG or can be mixed and dried to produce dried distillers grain with solubles, or DDGS. Both WDG and DDGS are high-protein animal feed products.

Wet Milling Process

In the wet milling process, corn or other high-starch grain is first soaked or “steeped” in water for 24 – 48 hours to separate the grain into its many components. After steeping, the corn slurry is processed first to separate the corn germ, from which the corn oil can be further separated. The remaining fiber, gluten and starch components are further separated and sold.

The steeping liquor is concentrated in an evaporator. The concentrated product, called heavy steep water, is co-dried with the fiber component and is then sold as corn gluten feed. The gluten component is filtered and dried to produce corn gluten meal.

The starch and any remaining water from the mash is then processed into ethanol or dried and processed into corn syrup. The fermentation process for ethanol at this stage is similar to the dry milling process.

Overview of Distillers Grains Market

Distillers grains are produced as a co-product of ethanol production and are valuable components of feed rations primarily to dairies and beef cattle markets, both nationally and internationally. Our plants produce both WDG and DDGS. WDG is sold to customers proximate to the plants and DDGS is delivered by truck, rail and barge to customers in domestic and international markets.

Producing WDG also allows us to use up to one-third less process energy thus reducing production costs and lowering the carbon footprint of these plants thereby increasing demand in California where premiums are paid for the low-carbon attributes.

Historically, the market price for distillers grains has generally tracked the value of corn. We believe that the market price of WDG and DDGS is determined by a number of factors, including the market value of corn, soybean meal and other competitive ingredients, the performance or value of WDG and DDGS in a particular feed formulation and general market forces of supply and demand, including export markets for these co-products. The market price of distillers grains is also often influenced by nutritional models that calculate the feed value of distillers grains by nutritional content, as well as reliability of consistent supply.

Customers

We market and sell through our wholly-owned subsidiary, Kinergy Marketing LLC, or Kinergy, all of the ethanol produced by our eight production facilities. Kinergy also markets ethanol produced by third parties. We have extensive customer relationships throughout the Western and Midwestern United States. Our ethanol customers are integrated oil companies and gasoline marketers who blend ethanol into gasoline. Our customers depend on us to provide a reliable supply of ethanol, and manage the logistics and timing of delivery with very little effort on their side. Our customers collectively require ethanol volumes in excess of the supplies we produce at our eight production facilities. We secure additional ethanol supplies from third party plants in California and other third party suppliers in the Midwest where a majority of ethanol producers are located. We arrange for transportation, storage and delivery of ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We also market all of the co-products produced at our eight plants. We do not market co-products from other ethanol producers. Our co-products include WDG, DDGS, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, distillers yeast and CO₂. We market our distillers grains and other feed co-products to dairies and feedlots, in many cases located near our ethanol plants. These customers use our feed co-products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers.

Our production segment generated \$527.7 million, \$450.5 million and \$387.5 million in net sales for the years ended December 31, 2015, 2014, and 2013, respectively, from the sale of ethanol. Our production segment generated \$182.5 million, \$111.9 million and \$119.7 million in net sales for the years ended December 31, 2015, 2014, and 2013, respectively, from the sale of co-products.

During 2015, 2014 and 2013, we sold an aggregate of approximately 319.2 million, 183.5 million and 149.7 million gallons of fuel-grade ethanol and 2.1 million, 1.5 million and 1.3 million tons of ethanol co-products, respectively.

Our marketing segment generated \$481.0 million, \$545.0 million and \$401.3 million in net sales for the years ended December 31, 2015, 2014, and 2013, respectively, from the sale of ethanol.

During 2015, 2014 and 2013, we produced or purchased ethanol from third parties and resold an aggregate of approximately 594 million, 400 million and 302 million gallons of fuel-grade ethanol to approximately 69, 41 and 37 customers, respectively. Sales to our four largest customers, Chevron Products USA, Valero Energy Corporation, Sinclair Oil Corporation and Tesoro Refining and Marketing Company LLC in 2015, 2014 and 2013 represented an aggregate of approximately 45%, 59% and 58%, of our net sales, respectively. Sales to each of our other customers represented less than 10% of our net sales in each of 2015, 2014 and 2013.

Suppliers

Production Segment

Our ethanol production operations are dependent upon various raw materials suppliers, including suppliers of corn, natural gas, electricity and water. The cost of corn is the most important variable cost associated with our ethanol production. We source corn for our plants using standard contracts, including spot purchase, forward purchase and basis contracts. When resources are available, we seek to limit the exposure of our ethanol production operations to raw material price fluctuations by purchasing forward a portion of our corn requirements on a fixed price basis and by purchasing corn and other raw materials futures contracts.

During 2015, 2014 and 2013, purchases of corn from our three largest suppliers represented an aggregate of approximately 41%, 53% and 59% of our total corn purchases, respectively, for those periods. Purchases from each of our other corn suppliers represented less than 10% of total corn purchases in each of 2015, 2014 and 2013.

Marketing Segment

Our marketing operations are dependent upon various third-party producers of fuel-grade ethanol. In addition, we provide ethanol transportation, storage and delivery services through third-party service providers with whom we have contracted to receive ethanol at agreed upon locations from our third party suppliers and to store and/or deliver the ethanol to agreed-upon locations on behalf of our customers. These contracts generally run from year-to-year, subject to termination by either party upon advance written notice before the end of the then current annual term.

During 2015, 2014 and 2013, we purchased and resold from third parties an aggregate of approximately 275.3 million, 215.4 million and 151.4 million gallons, respectively, of fuel-grade ethanol.

During 2015, 2014 and 2013, purchases of fuel-grade ethanol from our three largest third-party suppliers represented an aggregate of approximately 37%, 68% and 77% of our total third party ethanol purchases, respectively, for those periods. Purchases from each of our other third party ethanol suppliers represented less than 10% of total third-party ethanol purchases in each of 2015, 2014 and 2013.

Pacific Ethanol Plants

The table below provides an overview of our eight ethanol production facilities. Our plants have an aggregate annual production capacity of up to 515 million gallons. All of our plants are currently operational. As market conditions change, we may increase, decrease or idle production at one or more operational facilities or resume operations at any idled facility.

Pacific Ethanol West Plants

	Madera Facility	Columbia Facility	Magic Valley Facility	Stockton Facility
Location	Madera, CA	Boardman, OR	Burley, ID	Stockton, CA
Approximate maximum annual ethanol production capacity (in millions of gallons)	40	40	60	60
Production milling process	Dry	Dry	Dry	Dry
Primary energy source	Natural Gas	Natural Gas	Natural Gas	Natural Gas

Pacific Ethanol Central Plants

	Pekin Wet Facility	Pekin Dry Facility	Aurora West Facility	Aurora East Facility
Location	Pekin, IL	Pekin, IL	Aurora, NE	Aurora, NE
Approximate maximum annual ethanol production capacity (in millions of gallons)	100	60	110	45
Production milling process	Wet	Dry	Dry	Dry
Primary energy source	Natural Gas/Coal	Natural Gas	Natural Gas	Natural Gas

Commodity Risk Management

We employ various risk mitigation techniques. For example, we may seek to mitigate our exposure to commodity price fluctuations by purchasing forward a portion of our corn and natural gas requirements through fixed-price or variable-price contracts with our suppliers, as well as entering into derivative contracts for ethanol, corn and natural gas. To mitigate ethanol inventory price risks, we may sell a portion of our production forward under fixed- or index-price contracts, or both. We may hedge a portion of the price risks by selling exchange-traded futures contracts. Proper execution of these risk mitigation strategies can reduce the volatility of our gross profit margins. However, given the nature of our business, we cannot effectively hedge against extreme volatility or certain market conditions. For example, ethanol prices, as reported by the Chicago Board of Trade, or CBOT, ranged from \$1.31 to \$1.69 per gallon during 2015 and \$1.50 to \$3.52 per gallon during 2014 and corn prices, as reported by the CBOT, ranged from \$3.48 to \$4.34 per bushel during 2015 and from \$3.21 to \$5.16 per bushel during 2014.

Marketing Arrangements

We market all the ethanol produced at our eight production facilities. In addition, we have exclusive ethanol marketing agreements with two third-party ethanol producers, Calgren Renewable Fuels, LLC and AE Advanced Fuels Keyes, Inc., to market and sell their entire ethanol production volumes. Calgren Renewable Fuels, LLC owns and operates an ethanol production facility in Pixley, California with annual production capacity of 55 million gallons. AE Advanced Fuels Keyes, Inc. owns and operates an ethanol production facility in Keyes, California with annual production capacity of 55 million gallons. We intend to evaluate and pursue opportunities to enter into marketing arrangements with other third-party ethanol producers as business prospects make these marketing arrangements advisable.

Competition

We are the sixth largest producer of ethanol in the United States based on annualized volumes and operate in the highly competitive ethanol production and marketing industry. The largest ethanol producers in the United States are Archer Daniels Midland Company and Valero Energy Corporation, collectively with over 20% of the total installed ethanol production capacity in the United States. In addition, there are many mid-size producers with several plants under ownership, smaller producers with one or two plants, and several ethanol marketers that create significant competition. Overall, we believe there are over 200 ethanol production facilities in the United States with a total installed production capacity of approximately 15.6 billion gallons and many brokers and marketers with whom we compete for sales of ethanol and its co-products.

We believe that our competitive strengths include our customer and supplier relationships, our extensive ethanol distribution network, our strategic locations, our low carbon ethanol, our use of modern technologies at our production facilities and our experienced management. We believe that these advantages will help us to attain our goal to advance our position and significantly increase our market share as a leading producer and marketer of low-carbon renewable fuels in the United States.

Most of the largest metropolitan areas in the United States have fuel terminals served by rail, but other major metropolitan areas and more remote smaller cities and rural areas do not. We believe that we have a competitive advantage in the Western United States in particular due to our experience in marketing to the segment of customers in major metropolitan and rural markets in the Western United States. We manage the complicated logistics of shipping ethanol to intermediate storage locations throughout the Western United States and trucking the ethanol from these storage locations to blending racks where the ethanol is blended with gasoline. We believe that by establishing an efficient service for truck deliveries to these more remote locations, we have differentiated ourselves from our competitors on the West Coast. In addition, due to our Pacific Ethanol West plant locations, we believe that we benefit from our ability to increase spot sales of ethanol from those plants following ethanol price spikes caused from time to time by rail delays in delivering ethanol from the Midwest to the Western United States.

Our strategic locations in the Western United States designed to capitalize on cost efficiencies may nevertheless result in higher than expected costs as a result of more expensive raw materials and related shipping costs, including corn, which generally must be transported from the Midwest. If the costs of producing and shipping ethanol and its co-products over short distances are not advantageous relative to the costs of obtaining raw materials from the Midwest, then the benefits of our strategic locations on the West Coast may not be realized.

Governmental Regulation

Our business is subject to federal, state and local laws and regulations relating to the production of renewable fuels, the protection of the environment and in support of the corn and ethanol industries. These laws, their underlying regulatory requirements and their enforcement, some of which are described below, impact, or may impact, our existing and proposed business operations by imposing:

- restrictions on our existing and proposed business operations and/or the need to install enhanced or additional controls;
- the need to obtain and comply with permits and authorizations;
- liability for exceeding applicable permit limits or legal requirements, in some cases for the remediation of contaminated soil and groundwater at our facilities, contiguous and adjacent properties and other properties owned and/or operated by third parties; and
- specifications for the ethanol we market and produce.

In addition, some governmental regulations are helpful to our ethanol production and marketing business. The ethanol fuel industry is supported by federal and state mandates and environmental regulations that favor the use of ethanol in motor fuel blends in North America. Some of the governmental regulations applicable to our ethanol production and marketing business are briefly described below.

National Energy Legislation

The Energy Independence and Security Act of 2007, which was signed into law in December 2007, significantly increased the prior national RFS. The national RFS significantly increases the mandated use of renewable fuels, rising incrementally each year, to 36.0 billion gallons by 2022.

Under the provisions of the Energy Independence and Security Act of 2007, the EPA has the authority to waive the mandated national RFS requirements in whole or in part. To grant a waiver, the EPA administrator must determine, in consultation with the Secretaries of Agriculture and Energy, that there is inadequate domestic renewable fuel supply or implementation of the requirement would severely harm the economy or environment of a state, region or the United States as a whole.

Legislation aimed at reducing or eliminating the renewable fuel use required by the national RFS has been introduced in the United States Congress. On February 4, 2015, the RFS Elimination Act (H.R. 703) was introduced in the House of Representatives. The bill would fully repeal the national RFS. Also introduced on February 4, 2015, was the RFS Reform Act (H.R. 704), which prohibits corn-based ethanol from meeting the national RFS requirements, caps the amount of ethanol that can be blended into conventional gasoline at 10%, and requires the EPA to set requirements for cellulosic biofuels at actual production levels. On February 3, 2015, a bill ([H.R. 21](#)) was introduced in the House of Representatives to vacate the waiver issued by EPA allowing the use of 15% ethanol blends in certain light-duty vehicles.

In the Senate, the Corn Ethanol Mandate Elimination Act of 2015 (S. 577) was introduced on February 26, 2015. The bill would eliminate corn ethanol as qualifying as a renewable fuel under the national RFS. On March 18, 2015, the American Energy Renaissance Act of 2015 (S. 791) was introduced in the Senate. Companion legislation (H.R. 1487) was introduced in the House of Representatives on March 19, 2015. Among other provisions, the bill would phase out the national RFS between 2016 and 2019 and fully repeal the program in 2020. The Renewable Fuel Standard Repeal Act (S. 1584) was introduced in the Senate on June 16, 2015. It would fully repeal the national RFS.

All of these bills were assigned to a congressional committee, which will consider them before possibly sending any of them on to the House of Representatives or the Senate as a whole.

E15 (a Blend of Gasoline and Ethanol)

The EPA has allowed fuel and fuel-additive manufacturers to introduce into commercial gasoline that contains greater than 10% ethanol by volume, up to 15% ethanol by volume, or E15, for vehicles from model year 2001 and beyond. Additional changes to some states' laws to allow for the use of E15 are still required, however, commercial sale of E15 has begun in some states.

State Energy Legislation and Regulations

In January 2007, California's Governor signed an executive order directing the California Air Resources Board to implement California's Low-Carbon Fuel Standard for transportation fuels. California's Low-Carbon Fuel Standard requires fuel suppliers to reduce the carbon intensity of transportation fuels to 10% below 2010 levels by 2020. The Governor's office estimates that the standard will have the effect of increasing current renewable fuels use in California by three to five times by 2020.

The California Air Resources Board has engaged in a comprehensive process to re-adopt California's Low-Carbon Fuel Standard for transportation fuels through 2020 and is expected to extend this through 2030 applying aggressive new carbon intensity reduction targets for the final 10 years. We believe the revised program will be beneficial as we produce among the lowest carbon intensity ethanol commercially available, and we receive a premium for the fuel we sell into the California marketplace, which we expect will increase as the compliance curve steepens beginning in 2016.

A program similar to California's Low-Carbon Fuel Standard has also been adopted in Oregon and the Canadian province of British Columbia, and is under discussion in Washington State. These regions, together with California, represent a very large segment of the overall demand for transportation fuels in the United States.

Additional Environmental Regulations

In addition to the governmental regulations applicable to the ethanol production and marketing industry described above, our business is subject to additional federal, state and local environmental regulations, including regulations established by the EPA, the San Joaquin Valley Regional Water Quality Control Board, the San Joaquin Valley Air Pollution Control District and the California Air Resources Board. We cannot predict the manner or extent to which these regulations will harm or help our business or the ethanol production and marketing industry in general.

Employees

As of March 14, 2016, we had approximately 465 full-time employees. We believe that our employees are highly-skilled, and our success will depend in part upon our ability to retain our employees and attract new qualified employees, many of whom are in great demand. Approximately 135 of our employees are presently represented by a labor union, covered by a collective bargaining agreement. We have never had a work stoppage or strike and we consider our relations with our employees to be good.

Item 1A. Risk Factors.

Before deciding to purchase, hold or sell our common stock, you should carefully consider the risks described below in addition to the other information contained in this Report and in our other filings with the Securities and Exchange Commission, including subsequent reports on Forms 10-Q and 8-K. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business. If any of these known or unknown risks or uncertainties actually occurs with material adverse effects on Pacific Ethanol, our business, financial condition, results of operations and/or liquidity could be seriously harmed. In that event, the market price for our common stock will likely decline, and you may lose all or part of your investment.

Risks Related to our Business

We have incurred significant losses and negative operating cash flow in the past and we may incur losses and negative operating cash flow in the future, which may hamper our operations and impede us from expanding our business.

We have incurred significant losses and negative operating cash flow in the past. For the year ended December 31, 2015, we incurred consolidated net losses of approximately \$18.9 million and incurred negative operating cash flows of \$26.8 million. For 2013 and 2012, we incurred consolidated net losses of \$1.2 million and \$43.4 million, respectively, and in 2012 incurred negative operating cash flow of \$20.8 million. We may incur losses and negative operating cash flow in the future. We expect to rely on cash on hand and cash, if any, generated from our operations and from future financing activities to fund all of the cash requirements of our business. Continued losses and negative operating cash flow may hamper our operations and impede us from expanding our business.

Our results of operations and our ability to operate at a profit is largely dependent on managing the costs of corn and natural gas and the prices of ethanol, distillers grains and other ethanol co-products, all of which are subject to significant volatility and uncertainty.

Our results of operations are highly impacted by commodity prices, including the cost of corn and natural gas that we must purchase, and the prices of ethanol, distillers grains and other ethanol co-products that we sell. Prices and supplies are subject to and determined by market and other forces over which we have no control, such as weather, domestic and global demand, supply shortages, export prices and various governmental policies in the United States and around the world.

As a result of price volatility of corn, natural gas, ethanol, distillers grains and other ethanol co-products, our results of operations may fluctuate substantially. In addition, increases in corn or natural gas prices or decreases in ethanol, distillers grains or other ethanol co-product prices may make it unprofitable to operate. In fact, some of our marketing activities will likely be unprofitable in a market of generally declining ethanol prices due to the nature of our business. For example, to satisfy customer demands, we maintain certain quantities of ethanol inventory for subsequent resale. Moreover, we procure much of our inventory outside the context of a marketing arrangement and therefore must buy ethanol at a price established at the time of purchase and sell ethanol at an index price established later at the time of sale that is generally reflective of movements in the market price of ethanol. As a result, our margins for ethanol sold in these transactions generally decline and may turn negative as the market price of ethanol declines.

No assurance can be given that corn or natural gas can be purchased at, or near, current or any particular prices or that ethanol, distillers grains or other ethanol co-products will sell at, or near, current or any particular prices. Consequently, our results of operations and financial position may be adversely affected by increases in the price of corn or natural gas or decreases in the price of ethanol, distillers grains or other ethanol co-products.

Over the past several years, the spread between ethanol and corn prices has fluctuated significantly. Fluctuations are likely to continue to occur. A sustained narrow spread, whether as a result of sustained high or increased corn prices or sustained low or decreased ethanol prices, would adversely affect our results of operations and financial position. Further, combined revenues from sales of ethanol, distillers grains and other ethanol co-products could decline below the marginal cost of production, which may force us to suspend production of ethanol, distillers grains and ethanol co-products at some or all of our plants.

Increased ethanol production may cause a decline in ethanol prices or prevent ethanol prices from rising, and may have other negative effects, adversely impacting our results of operations, cash flows and financial condition.

We believe that the most significant factor influencing the price of ethanol has been the substantial increase in ethanol production in recent years. According to the Renewable Fuels Association, domestic ethanol production capacity increased from an annualized rate of 1.5 billion gallons per year in January 1999 to a record 14.8 billion gallons in 2015. In addition, if ethanol production margins improve, we anticipate that owners of idle ethanol production facilities, many of which may be idled due to poor production margins, will restart operations, thereby resulting in more abundant ethanol supplies and inventories. Any increase in the demand for ethanol may not be commensurate with increases in the supply of ethanol, thus leading to lower ethanol prices. Also, demand for ethanol could be impaired due to a number of factors, including regulatory developments and reduced United States gasoline consumption. Reduced gasoline consumption has occurred in the past and could occur in the future as a result of increased gasoline or oil prices or other factors such as increased automobile fuel efficiency. Any of these outcomes could have a material adverse effect on our results of operations, cash flows and financial condition.

The market price of ethanol is volatile and subject to large fluctuations, which may cause our profitability or losses to fluctuate significantly.

The market price of ethanol is volatile and subject to large fluctuations. The market price of ethanol is dependent upon many factors, including the supply of ethanol and the price of gasoline, which is in turn dependent upon the price of petroleum which is highly volatile and difficult to forecast. For example, ethanol prices, as reported by the CBOT, ranged from \$1.31 to \$1.69 per gallon during 2015 and \$1.50 to \$3.52 per gallon during 2014. Fluctuations in the market price of ethanol may cause our profitability or losses to fluctuate significantly.

Some of our marketing activities will likely be unprofitable in a market of generally declining ethanol prices due to the nature of our business.

Some of our marketing activities will likely be unprofitable in a market of generally declining ethanol prices due to the nature of our business. For example, to satisfy customer demands, we maintain certain quantities of ethanol inventory for subsequent resale. Moreover, we procure much of our inventory outside the context of a marketing arrangement and therefore must buy ethanol at a price established at the time of purchase and sell ethanol at an index price established later at the time of sale that is generally reflective of movements in the market price of ethanol. As a result, our margins for ethanol sold in these transactions generally decline and may turn negative as the market price of ethanol declines.

Disruptions in ethanol production infrastructure may adversely affect our business, results of operations and financial condition.

Our business depends on the continuing availability of rail, road, port, storage and distribution infrastructure. In particular, due to limited storage capacity at our plants and other considerations related to production efficiencies, our plants depend on just-in-time delivery of corn. The production of ethanol also requires a significant and uninterrupted supply of other raw materials and energy, primarily water, electricity and natural gas. The prices of electricity and natural gas have fluctuated significantly in the past and may fluctuate significantly in the future. Local water, electricity and gas utilities may not be able to reliably supply the water, electricity and natural gas that our plants need or may not be able to supply those resources on acceptable terms. Any disruptions in the ethanol production infrastructure, whether caused by labor difficulties, earthquakes, storms, other natural disasters or human error or malfeasance or other reasons, could prevent timely deliveries of corn or other raw materials and energy and may require us to halt production at one or more plants which could have a material adverse effect on our business, results of operations and financial condition.

We may engage in hedging transactions and other risk mitigation strategies that could harm our results of operations.

In an attempt to partially offset the effects of volatility of ethanol prices and corn and natural gas costs, we may enter into contracts to fix the price of a portion of our ethanol production or purchase a portion of our corn or natural gas requirements on a forward basis. In addition, we may engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas and unleaded gasoline from time to time. The financial statement impact of these activities is dependent upon, among other things, the prices involved and our ability to sell sufficient products to use all of the corn and natural gas for which forward commitments have been made. Hedging arrangements also expose us to the risk of financial loss in situations where the other party to the hedging contract defaults on its contract or, in the case of exchange-traded contracts, where there is a change in the expected differential between the underlying price in the hedging agreement and the actual prices paid or received by us. As a result, our results of operations and financial condition may be adversely affected by fluctuations in the price of corn, natural gas, ethanol and unleaded gasoline.

Operational difficulties at our plants could negatively impact sales volumes and could cause us to incur substantial losses.

Operations at our plants are subject to labor disruptions, unscheduled downtimes and other operational hazards inherent in the ethanol production industry, including equipment failures, fires, explosions, abnormal pressures, blowouts, pipeline ruptures, transportation accidents and natural disasters. Some of these operational hazards may cause personal injury or loss of life, severe damage to or destruction of property and equipment or environmental damage, and may result in suspension of operations and the imposition of civil or criminal penalties. Our insurance may not be adequate to fully cover the potential operational hazards described above or we may not be able to renew this insurance on commercially reasonable terms or at all.

Moreover, our plants may not operate as planned or expected. All of these facilities are designed to operate at or above a specified production capacity. The operation of these facilities is and will be, however, subject to various uncertainties. As a result, these facilities may not produce ethanol and its co-products at expected levels. In the event any of these facilities do not run at their expected capacity levels, our business, results of operations and financial condition may be materially and adversely affected.

Future demand for ethanol is uncertain and may be affected by changes to federal mandates, public perception, consumer acceptance and overall consumer demand for transportation fuel, any of which could negatively affect demand for ethanol and our results of operations.

Although many trade groups, academics and governmental agencies have supported ethanol as a fuel additive that promotes a cleaner environment, others have criticized ethanol production as consuming considerably more energy and emitting more greenhouse gases than other biofuels and potentially depleting water resources. Some studies have suggested that corn-based ethanol is less efficient than ethanol produced from other feedstock and that it negatively impacts consumers by causing increased prices for dairy, meat and other food generated from livestock that consume corn. Additionally, ethanol critics contend that corn supplies are redirected from international food markets to domestic fuel markets. If negative views of corn-based ethanol production gain acceptance, support for existing measures promoting use and domestic production of corn-based ethanol could decline, leading to reduction or repeal of federal mandates, which could adversely affect the demand for ethanol. These views could also negatively impact public perception of the ethanol industry and acceptance of ethanol as an alternative fuel.

There are limited markets for ethanol beyond those established by federal mandates. Discretionary blending and E85 blending are important secondary markets. Discretionary blending is often determined by the price of ethanol versus the price of gasoline. In periods when discretionary blending is financially unattractive, the demand for ethanol may be reduced. Also, the demand for ethanol is affected by the overall demand for transportation fuel. Demand for transportation fuel is affected by the number of miles traveled by consumers and the fuel economy of vehicles. Market acceptance of E15 may partially offset the effects of decreases in transportation fuel demand. A reduction in the demand for ethanol and ethanol co-products may depress the value of our products, erode our margins and reduce our ability to generate revenue or to operate profitably. Consumer acceptance of E15 and E85 fuels is needed before ethanol can achieve any significant growth in market share relative to other transportation fuels.

If we fail to integrate successfully the businesses of Pacific Ethanol and Aventine our results of operations will be adversely affected.

The success of the Aventine acquisition will depend, in large part, on our ability to realize the anticipated benefits from combining the businesses of Pacific Ethanol and Aventine. To realize these anticipated benefits, we must successfully integrate the businesses of Pacific Ethanol and Aventine. This integration has been and will continue to be complex and time-consuming.

The failure to integrate successfully and to manage successfully the challenges presented by the integration process may result in our failure to achieve some or all of the anticipated benefits of the acquisition.

Potential difficulties that may be encountered in the integration process include the following:

- complexities associated with managing the larger, more complex, combined business;
- integrating personnel;
- potential unknown liabilities and unforeseen expenses, delays or regulatory conditions associated with the acquisition; and
- performance shortfalls as a result of the diversion of management's attention caused by integrating Pacific Ethanol's and Aventine's operations.

Our future results will suffer if we do not effectively manage our expanded operations.

Our business following the Aventine acquisition is significantly larger than the individual businesses of Pacific Ethanol and Aventine prior to the acquisition. Our future success depends, in part, upon our ability to manage our expanded business, which will pose substantial challenges for our management, including challenges related to the management and monitoring of new operations and associated increased costs and complexity. We cannot assure you that we will be successful or that we will realize the expected operating efficiencies, annual net operating synergies, revenue enhancements and other benefits currently anticipated to result from the acquisition.

Our level of indebtedness may make it more difficult for us to pay or refinance our debts and we may need to divert our cash flow from operations to debt service payments. Our indebtedness could limit our ability to pursue other strategic opportunities and could increase our vulnerability to adverse economic and industry conditions.

Our debt service obligations could have an adverse impact on our earnings and cash flows for as long as the indebtedness is outstanding. Our indebtedness could also have important consequences to holders of our common stock. For example, it could:

- make it more difficult to pay or refinance our debts as they become due during adverse economic and industry conditions because any decrease in revenues could cause us to not have sufficient cash flows from operations to make our scheduled debt payments;
- limit our flexibility to pursue other strategic opportunities or react to changes in our business and the industry in which we operate and, consequently, place us at a competitive disadvantage to our competitors who have less debt; or
- require a substantial portion of our cash flows from operations to be used for debt service payments, thereby reducing the availability of our cash flows to fund working capital, capital expenditures, acquisitions, dividend payments and other general corporate purposes.

Based upon current levels of operations, we expect to generate sufficient cash on a consolidated basis to make all principal and interest payments when such payments become due under our existing credit facilities, indentures and other instruments governing our outstanding indebtedness, but there can be no assurance that we will be able to repay or refinance such borrowings and obligations.

If Kinerger fails to satisfy its financial covenants under its credit facility, it may experience a loss or reduction of that facility, which would have a material adverse effect on our financial condition and results of operations.

We are substantially dependent on Kinerger's credit facility to help finance its operations. Kinerger must satisfy monthly financial covenants under its credit facility, including fixed-charge coverage ratio covenants. Kinerger will be in default under its credit facility if it fails to satisfy any financial covenant. A default may result in the loss or reduction of the credit facility. The loss of Kinerger's credit facility, or a significant reduction in Kinerger's borrowing capacity under the facility, would result in Kinerger's inability to finance a significant portion of its business and would have a material adverse effect on our financial condition and results of operations.

The United States ethanol industry is highly dependent upon certain federal and state legislation and regulation and any changes in legislation or regulation could have a material adverse effect on our results of operations, cash flows and financial condition.

The EPA has implemented the national RFS pursuant to the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. The national RFS program sets annual quotas for the quantity of renewable fuels (such as ethanol) that must be blended into motor fuels consumed in the United States. The domestic market for ethanol is significantly impacted by federal mandates under the national RFS program for volumes of renewable fuels (such as ethanol) required to be blended with gasoline. Future demand for ethanol will be largely dependent upon incentives to blend ethanol into motor fuels, including the relative price of gasoline versus ethanol, the relative octane value of ethanol, constraints in the ability of vehicles to use higher ethanol blends, the national RFS, and other applicable environmental requirements. Any significant increase in production capacity above the national RFS minimum requirements may have an adverse impact on ethanol prices.

Legislation aimed at reducing or eliminating the renewable fuel use required by the national RFS has been introduced in the United States Congress. On January 21, 2015, the *Leave Ethanol Volumes at Existing Levels (LEVEL) Act* (H.R. 434) was introduced in the House. The bill would amend the national RFS by decreasing the required volume of renewable fuels in 2015-2022 to 7.5 billion gallons per year. On February 4, 2015, the *RFS Elimination Act* (H.R. 703) was introduced in the House of Representatives. The bill would fully repeal the national RFS. Also introduced on February 4, 2015, was the *RFS Reform Act* (H.R. 704), which prohibits corn-based ethanol from meeting the national RFS requirements, caps the amount of ethanol that can be blended into conventional gasoline at 10%, and requires the EPA to set requirements for cellulosic biofuels at actual production levels. On January 6, 2015, a bill (H.R. 21) was introduced in the House of Representatives to, among other things, vacate any waivers issued under the Clean Air Act to allow the sale of mid-level ethanol blends for use in motor vehicles. A mid-level ethanol blend is an ethanol-gasoline blend containing 10-20% of ethanol by volume that is intended to be used in any conventional gasoline-powered motor vehicle or nonroad vehicle or engine. On February 26, 2015, the *Corn Ethanol Mandate Elimination Act of 2015* (S. 577) was introduced in the Senate. The bill would eliminate corn ethanol as qualifying as a renewable fuel under the national RFS. *The American Energy Renaissance Act of 2015* (S. 791 and H.R. 1487), which was introduced in the Senate on March 18, 2015 and the House on March 19, 2015, would phase out the national RFS over a five-year period. The *Renewable Fuel Standard Repeal Act* (S. 1584), which would fully repeal the national RFS, was introduced in the Senate on June 16, 2015. All of these bills were assigned to a congressional committee, which will consider them before possibly sending any of them on to the House of Representatives or the Senate as a whole. Our operations could be adversely impacted if any legislation is enacted that reduces or eliminates the national RFS volume requirements or that reduces or eliminates corn ethanol as qualifying as a renewable fuel under the national RFS.

Under the provisions of the Clean Air Act, as amended by the Energy Independence and Security Act of 2007, the EPA has limited authority to waive or reduce the mandated national RFS requirements, which authority is subject to consultation with the Secretaries of Agriculture and Energy, and based on a determination that there is inadequate domestic renewable fuel supply or implementation of the applicable requirements would severely harm the economy or environment of a state, region or the United States. For 2016, the EPA reduced the national RFS from the statutory level of 15.0 billion gallons to 14.0 billion gallons. We believe that the EPA's decision to propose cuts to the congressionally established volumes is based on the EPA's perception that the nation's refueling infrastructure is currently unable to distribute the statutorily-required volumes to consumers. Our results of operations, cash flows and financial condition could be adversely impacted if the EPA further reduces the national RFS requirements from the statutory levels specified in the national RFS.

The ethanol production and marketing industry is extremely competitive. Many of our significant competitors have greater production and financial resources and one or more of these competitors could use their greater resources to gain market share at our expense. In addition, a number of Kinergy's suppliers may circumvent the marketing services we provide, causing our sales and profitability to decline.

The ethanol production and marketing industry is extremely competitive. Many of our significant competitors in the ethanol production and marketing industry, including Archer Daniels Midland Company and Valero Energy Corporation, have substantially greater production and/or financial resources. As a result, our competitors may be able to compete more aggressively and sustain that competition over a longer period of time. Successful competition will require a continued high level of investment in marketing and customer service and support. Our limited resources relative to many significant competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and cause a decline in market share, sales and profitability. Even if sufficient funds are available, we may not be able to make the modifications and improvements necessary to compete successfully.

We also face increasing competition from international suppliers. Currently, international suppliers produce ethanol primarily from sugar cane and have cost structures that are generally substantially lower than our cost structures. Any increase in domestic or foreign competition could cause us to reduce our prices and take other steps to compete effectively, which could adversely affect our business, financial condition and results of operations.

In addition, some of our suppliers are potential competitors and, especially if the price of ethanol reaches historically high levels, they may seek to capture additional profits by circumventing our marketing services in favor of selling directly to our customers. If one or more of our major suppliers, or numerous smaller suppliers, circumvent our marketing services, our sales and profitability may decline.

Our ability to utilize net operating loss carryforwards and certain other tax attributes may be limited.

Federal and state income tax laws impose restrictions on the utilization of net operating loss, or NOL, and tax credit carryforwards in the event that an “ownership change” occurs for tax purposes, as defined by Section 382 of the Internal Revenue Code, or Code. In general, an ownership change occurs when stockholders owning 5% or more of a “loss corporation” (a corporation entitled to use NOL or other loss carryovers) have increased their ownership of stock in such corporation by more than 50 percentage points during any three-year period. The annual base limitation under Section 382 of the Code is calculated by multiplying the loss corporation’s value at the time of the ownership change by the greater of the long-term tax-exempt rate determined by the Internal Revenue Service in the month of the ownership change or the two preceding months.

As of December 31, 2015, we had \$137.6 million of federal NOLs that are limited in their annual use under Section 382 of the Code. Accordingly, our ability to utilize these NOL carryforwards may be substantially limited. These limitations could in turn result in increased future tax obligations, which could have a material adverse effect on our business, financial condition and results of operations.

The high concentration of our sales within the ethanol production and marketing industry could result in a significant reduction in sales and negatively affect our profitability if demand for ethanol declines.

We expect to be completely focused on the production and marketing of ethanol and its co-products for the foreseeable future. We may be unable to shift our business focus away from the production and marketing of ethanol to other renewable fuels or competing products. Accordingly, an industry shift away from ethanol or the emergence of new competing products may reduce the demand for ethanol. A downturn in the demand for ethanol would likely materially and adversely affect our sales and profitability.

We may be adversely affected by environmental, health and safety laws, regulations and liabilities.

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and wastes, and the health and safety of our employees. In addition, some of these laws and regulations require us to operate under permits that are subject to renewal or modification. These laws, regulations and permits can often require expensive pollution control equipment or operational changes to limit actual or potential impacts to the environment. A violation of these laws and regulations or permit conditions can result in substantial fines, natural resource damages, criminal sanctions, permit revocations and/or facility shutdowns. In addition, we have made, and expect to make, significant capital expenditures on an ongoing basis to comply with increasingly stringent environmental laws, regulations and permits.

We may be liable for the investigation and cleanup of environmental contamination at each of our plants and at off-site locations where we arrange for the disposal of hazardous substances or wastes. If these substances or wastes have been or are disposed of or released at sites that undergo investigation and/or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, or other environmental laws for all or part of the costs of investigation and/or remediation, and for damages to natural resources. We may also be subject to related claims by private parties alleging property damage and personal injury due to exposure to hazardous or other materials at or from those properties. Some of these matters may require us to expend significant amounts for investigation, cleanup or other costs.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make significant additional expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments for environmental controls at our plants. Present and future environmental laws and regulations, and interpretations of those laws and regulations, applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions may require substantial expenditures that could have a material adverse effect on our results of operations and financial condition.

The hazards and risks associated with producing and transporting our products (including fires, natural disasters, explosions and abnormal pressures and blowouts) may also result in personal injury claims or damage to property and third parties. As protection against operating hazards, we maintain insurance coverage against some, but not all, potential losses. However, we could sustain losses for uninsurable or uninsured risks, or in amounts in excess of existing insurance coverage. Events that result in significant personal injury or damage to our property or third parties or other losses that are not fully covered by insurance could have a material adverse effect on our results of operations and financial condition.

If we are unable to attract or retain key personnel, our ability to operate effectively may be impaired, which could have a material adverse effect on our business, financial condition and results of operations.

Our ability to operate our business and implement strategies depends, in part, on the efforts of our executive officers and other key personnel. Our future success will depend on, among other factors, our ability to retain our current key personnel and attract and retain qualified future key personnel, particularly executive management. In addition, the success of the Aventine acquisition will depend in part on our ability to retain key personnel. It is possible that these personnel might decide not to remain with us now that the acquisition is completed. If these key personnel terminate their employment, our business activities might be adversely affected and management's attention might be diverted from integrating the businesses of Pacific Ethanol and Aventine to recruiting suitable replacement personnel. We may be unable to locate suitable replacements for any such key personnel or offer employment to potential replacement personnel on reasonable terms. If we are unable to attract or retain key personnel, our ability to operate effectively may be impaired, which could have a material adverse effect on our business, financial condition and results of operations.

We depend on a small number of customers for the majority of our sales. A reduction in business from any of these customers could cause a significant decline in our overall sales and profitability.

The majority of our sales are generated from a small number of customers. During 2015, 2014 and 2013, four customers accounted for an aggregate of approximately \$538 million, \$659 million and \$521 million in net sales, representing 45%, 59% and 58% of our net sales, respectively, for those periods. We expect that we will continue to depend for the foreseeable future upon a small number of customers for a significant portion of our sales. Our agreements with these customers generally do not require them to purchase any specified amount of ethanol or dollar amount of sales or to make any purchases whatsoever. Therefore, in any future period, our sales generated from these customers, individually or in the aggregate, may not equal or exceed historical levels. If sales to any of these customers cease or decline, we may be unable to replace these sales with sales to either existing or new customers in a timely manner, or at all. A cessation or reduction of sales to one or more of these customers could cause a significant decline in our overall sales and profitability.

Our lack of long-term ethanol orders and commitments by our customers could lead to a rapid decline in our sales and profitability.

We cannot rely on long-term ethanol orders or commitments by our customers for protection from the negative financial effects of a decline in the demand for ethanol or a decline in the demand for our marketing services. The limited certainty of ethanol orders can make it difficult for us to forecast our sales and allocate our resources in a manner consistent with our actual sales. Moreover, our expense levels are based in part on our expectations of future sales and, if our expectations regarding future sales are inaccurate, we may be unable to reduce costs in a timely manner to adjust for sales shortfalls. Furthermore, because we depend on a small number of customers for a significant portion of our sales, the magnitude of the ramifications of these risks is greater than if our sales were less concentrated. As a result of our lack of long-term ethanol orders and commitments, we may experience a rapid decline in our sales and profitability.

There are limitations on our ability to receive distributions from our subsidiaries.

We conduct most of our operations through subsidiaries and are dependent upon dividends or other intercompany transfers of funds from our subsidiaries to generate free cash flow. Moreover, some of our subsidiaries are limited in their ability to pay dividends or make distributions to us by the terms of their financing arrangements.

Risks Related to Ownership of our Common Stock

Our stock price is highly volatile, which could result in substantial losses for investors purchasing shares of our common stock and in litigation against us.

The market price of our common stock has fluctuated significantly in the past and may continue to fluctuate significantly in the future. The market price of our common stock may continue to fluctuate in response to one or more of the following factors, many of which are beyond our control:

- fluctuations in the market prices of ethanol and its co-products;
- the cost of key inputs to the production of ethanol, including corn and natural gas;
- the volume and timing of the receipt of orders for ethanol from major customers;
- competitive pricing pressures;
- our ability to timely and cost-effectively produce, sell and deliver ethanol;
- the announcement, introduction and market acceptance of one or more alternatives to ethanol;
- losses resulting from adjustments to the fair values of our outstanding warrants to purchase our common stock;
- changes in market valuations of companies similar to us;
- stock market price and volume fluctuations generally;
- the possibility that the anticipated benefits from our acquisition of Aventine cannot be fully realized in a timely manner or at all, or that integrating the acquired operations will be more difficult, disruptive or costly than anticipated;
- regulatory developments or increased enforcement;
- fluctuations in our quarterly or annual operating results;
- additions or departures of key personnel;
- our inability to obtain any necessary financing;
- our financing activities and future sales of our common stock or other securities; and
- our ability to maintain contracts that are critical to our operations.

Furthermore, we believe that the economic conditions in California and other Western states, as well as the United States as a whole, could have a negative impact on our results of operations. Demand for ethanol could also be adversely affected by a slow-down in the overall demand for oxygenate and gasoline additive products. The levels of our ethanol production and purchases for resale will be based upon forecasted demand. Accordingly, any inaccuracy in forecasting anticipated revenues and expenses could adversely affect our business. The failure to receive anticipated orders or to complete delivery in any quarterly period could adversely affect our results of operations for that period. Quarterly results are not necessarily indicative of future performance for any particular period, and we may not experience revenue growth or profitability on a quarterly or an annual basis.

The price at which you purchase shares of our common stock may not be indicative of the price that will prevail in the trading market. You may be unable to sell your shares of common stock at or above your purchase price, which may result in substantial losses to you and which may include the complete loss of your investment. In the past, securities class action litigation has often been brought against a company following periods of high stock price volatility. We may be the target of similar litigation in the future. Securities litigation could result in substantial costs and divert management's attention and our resources away from our business.

Any of the risks described above could have a material adverse effect on our results of operations or the price of our common stock, or both.

We may incur significant non-cash expenses in future periods due to adjustments to the fair values of our outstanding warrants. These non-cash expenses may materially and adversely affect our reported net income or losses and cause our stock price to decline.

From 2010 through 2013, we issued in various financing transactions warrants to purchase shares of our common stock. The warrants were initially recorded at their fair values, which are adjusted quarterly, generally resulting in non-cash expenses or income if the market price of our common stock increases or decreases, respectively, during the period. For example, due to the substantial increase in the market price of our common stock in the first quarter of 2014 and because the exercise prices of these warrants were, as of March 31, 2014, well below the market price of our common stock, the fair values of the warrants and the related non-cash expenses were significantly higher in the first quarter of 2014 than in prior quarterly periods, which resulted in an unusually large non-cash expense for the quarter. These fair value adjustments will continue in future periods until all of our warrants are exercised or expire. We may incur additional significant non-cash expenses in future periods due to adjustments to the fair values of our outstanding warrants resulting from increases in the market price of our common stock during those periods. These non-cash expenses may materially and adversely affect our reported net income or losses and cause our stock price to decline.

The conversion or exercise of our outstanding derivative securities could substantially dilute your investment, reduce your voting power, and, if the resulting shares of common stock are resold into the market, or if a perception exists that a substantial number of shares may be issued and then resold into the market, the market price of our common stock and the value of your investment could decline significantly.

Our outstanding options to acquire our common stock issued to employees, directors and others, and warrants to purchase our common stock, allow the holders of these derivative securities an opportunity to profit from a rise in the market price of our common stock. We have issued common stock in respect of our derivative securities in the past and may do so in the future. If the prices at which our derivative securities are converted or exercised, are lower than the price at which you made your investment, immediate dilution of the value of your investment will occur. Our issuance of shares of common stock under these circumstances will also reduce your voting power. In addition, sales of a substantial number of shares of common stock resulting from any of these issuances, or even the perception that these sales could occur, could adversely affect the market price of our common stock. As a result, you could experience a significant decline in the value of your investment as a result of both the actual and potential issuance of shares of our common stock.

Item 1B. Unresolved Staff Comments.

We have received no written comments regarding our periodic or current reports from the staff of the Securities and Exchange Commission that were issued 180 days or more preceding the end of our 2015 fiscal year and that remain unresolved.

Item 2. Properties.

Our corporate headquarters, located in Sacramento, California, consists of a 10,000 square foot office under a lease expiring in 2018. The Pacific Ethanol West plants are located in Madera, California, at a 137 acre facility; Boardman, Oregon, at a 25 acre facility; Burley, Idaho, at a 160 acre facility; and Stockton, California, at a 30 acre facility. We own the land in Madera, California and Burley, Idaho. The land in Boardman, Oregon and Stockton, California are leased under leases expiring in 2026 and 2022, respectively. The Pacific Ethanol Central plants are located in Pekin, Illinois at a 94 acre facility and Aurora, Nebraska, at a 96 acre facility. We own the land in Pekin, Illinois and Aurora, Nebraska. We also own an idled ethanol production facility in Canton, Illinois on a 289 acre facility, of which a significant portion is farm land. Our production segment includes the Pacific Ethanol West plants and the Pacific Ethanol Central plants. See “Business—Production Facilities.”

Item 3. Legal Proceedings.

We are subject to legal proceedings, claims and litigation arising in the ordinary course of business. While the amounts claimed may be substantial, the ultimate liability cannot presently be determined because of considerable uncertainties that exist. Therefore, it is possible that the outcome of those legal proceedings, claims and litigation could adversely affect our quarterly or annual operating results or cash flows when resolved in a future period. However, based on facts currently available, management believes such matters will not adversely affect in any material respect our financial position, results of operations or cash flows.

We have evaluated the following pending cases and have recorded \$3.2 million as a litigation contingency with respect to these cases for amounts that are probable and estimable.

Western Sugar Cooperative

Pacific Ethanol, Inc., through a subsidiary acquired in its acquisition of Aventine, became involved in a pending lawsuit with Western Sugar Cooperative (“Western Sugar”) that pre-dated the Aventine acquisition.

On February 27, 2015, Western Sugar filed a complaint in the United States District Court for the District of Colorado (Case No. 1:15-cv-00415) naming Aventine Renewable Energy, Inc. (“ARE, Inc.”), one of Aventine’s subsidiaries, as defendant. Western Sugar amended its complaint on April 21, 2015. ARE, Inc. purchased surplus sugar through a United States Department of Agriculture program. Western Sugar was one of the entities that warehoused this sugar for ARE, Inc. The suit alleges that ARE, Inc. breached its contract with Western Sugar by failing to pay certain penalty rates for the storage of its sugar or alternatively failing to pay a premium rate for storage. Western Sugar alleges that the penalty rates apply because ARE, Inc. failed to take timely delivery or otherwise cause timely shipment of the sugar. Western Sugar claims “expectation damages” in the amount of approximately \$8.6 million. ARE, Inc. filed answers to Western Sugar’s complaint and amended complaint generally denying Western Sugar’s allegations and asserting various defenses. The case is currently in its discovery phase. We are evaluating Western Sugar’s claims.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market For Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock trades on The NASDAQ Capital Market under the symbol "PEIX". We also have non-voting common stock outstanding which is not listed on an exchange. The table below shows, for each fiscal quarter indicated, the high and low sales prices of shares of our common stock. The prices shown reflect inter-dealer prices, without retail mark-up, mark-down or commission, and may not necessarily represent actual transactions.

	Price Range	
	High	Low
Year Ended December 31, 2015:		
First Quarter (January 1 – March 31)	\$ 12.16	\$ 7.51
Second Quarter (April 1 – June 30)	\$ 13.70	\$ 9.90
Third Quarter (July 1 – September 30)	\$ 10.45	\$ 6.11
Fourth Quarter (October 1 – December 31)	\$ 7.64	\$ 3.74
Year Ended December 31, 2014:		
First Quarter	\$ 18.20	\$ 4.83
Second Quarter	\$ 18.65	\$ 10.43
Third Quarter	\$ 23.97	\$ 13.75
Fourth Quarter	\$ 15.57	\$ 9.10

Security Holders

As of March 14, 2016, we had 38,974,972 shares of common stock outstanding held of record by approximately 340 stockholders and 3,540,132 shares of non-voting common stock outstanding held of record by 15 stockholders. These holders of record include depositories that hold shares of stock for brokerage firms which, in turn, hold shares of stock for numerous beneficial owners. On March 14, 2016, the closing sales price of our common stock on The NASDAQ Capital Market was \$5.20 per share.

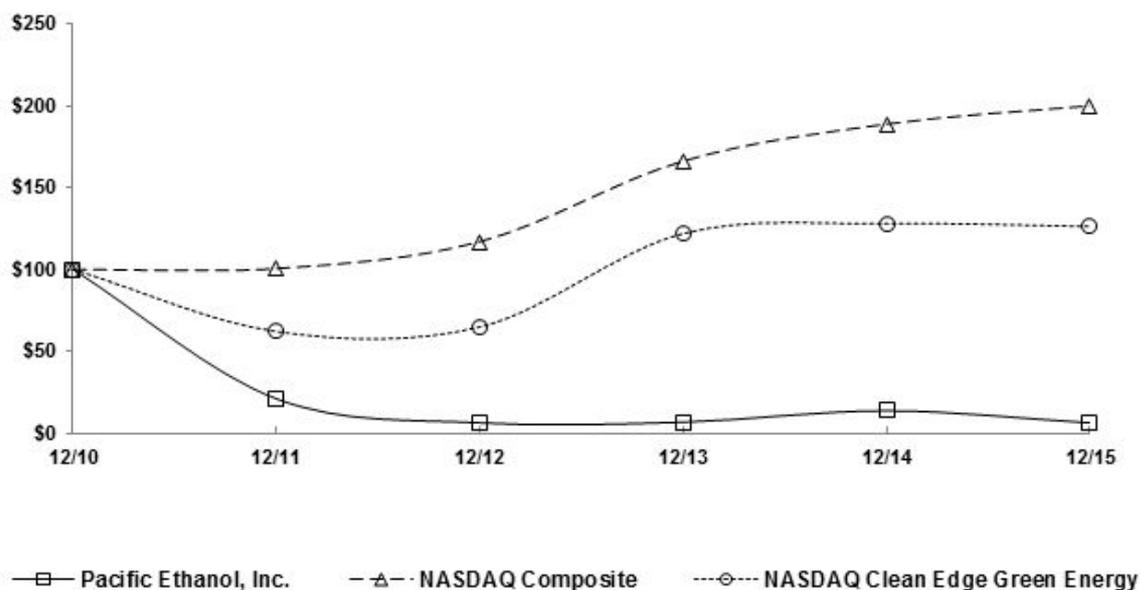
Performance Graph

The graph below shows a comparison of the cumulative total stockholder return on our common stock with the cumulative total return on The NASDAQ Composite Index and The NASDAQ Clean Edge Green Energy Index, or Peer Group, in each case over the five-year period ended December 31, 2015.

The graph assumes \$100 invested at the indicated starting date in our common stock and in each of The NASDAQ Composite Index and the Peer Group, with the reinvestment of all dividends. We have not paid or declared any cash dividends on our common stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future. Stockholder returns over the indicated periods should not be considered indicative of future stock prices or stockholder returns. This graph assumes that the value of the investment in our common stock and each of the comparison groups was \$100 on December 31, 2010.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among Pacific Ethanol, Inc., the NASDAQ Composite Index,
and the NASDAQ Clean Edge Green Energy Index



*\$100 invested on 12/31/10 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

	Cumulative Total Return (\$)					
	12/10	12/11	12/12	12/13	12/14	12/15
PACIFIC ETHANOL, INC.	100.00	20.98	6.26	6.72	13.63	6.31
THE NASDAQ COMPOSITE INDEX	100.00	100.53	116.92	166.19	188.78	199.95
THE NASDAQ CLEAN EDGE GREEN ENERGY INDEX	100.00	62.01	64.84	121.94	127.90	126.21

Dividend Policy

We have never paid cash dividends on our common stock and do not intend to pay cash dividends on our common stock in the foreseeable future. We anticipate that we will retain any earnings for use in the continued development of our business.

Our current and future debt financing arrangements may limit or prevent cash distributions from our subsidiaries to us, depending upon the achievement of specified financial and other operating conditions and our ability to properly service our debt, thereby limiting or preventing us from paying cash dividends. Further, the holders of our outstanding Series B Preferred Stock are entitled to dividends of 7% per annum, payable quarterly in arrears. In 2013, 2014 and 2015, we declared and paid in cash dividends on our outstanding shares of Series B Preferred Stock as they became due. Accrued and unpaid dividends in respect of our Series B Preferred Stock must be paid prior to the payment of any dividends in respect of shares of our common stock.

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data.

The following table sets forth our selected consolidated financial data. We prepared this information using our consolidated financial statements for each of the years ended December 31, 2015, 2014, 2013, 2012 and 2011.

You should read this selected consolidated financial data together with the consolidated financial statements and related notes contained in this report and in our prior and subsequent reports filed with the Securities and Exchange Commission, as well as the section of this report and our other reports entitled "Management's Discussion and Analysis of Financial Condition and Results of Operations." The historical results that appear below are not necessarily indicative of results to be expected for any future periods.

	Years Ended December 31,				
	2015	2014	2013	2012	2011
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Net sales	\$ 1,191,176	\$ 1,107,412	\$ 908,437	\$ 816,044	\$ 901,188
Cost of goods sold	1,183,766	998,927	875,507	835,568	881,789
Gross profit (loss)	7,410	108,485	32,930	(19,524)	19,399
Selling, general and administrative expenses	23,412	17,108	14,021	12,141	15,427
Asset impairments	1,970	—	—	—	—
Income (loss) from operations	(17,972)	91,377	18,909	(31,665)	3,972
Fair value adjustments and warrant inducements	1,641	(37,532)	(1,013)	1,954	7,559
Interest expense, net	(12,594)	(9,438)	(15,671)	(13,049)	(14,813)
Loss on extinguishments of debt	—	(2,363)	(3,035)	—	—
Other income (expense), net	18	(905)	(352)	(595)	(741)
Income (loss) before provision for income taxes	(28,907)	41,139	(1,162)	(43,355)	(4,023)
(Benefit) provision for income taxes	(10,034)	15,137	—	—	—
Consolidated net income (loss)	(18,873)	26,002	(1,162)	(43,355)	(4,023)
Net (income) loss attributed to noncontrolling interests	87	(4,713)	381	24,298	7,097
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ (18,786)	\$ 21,289	\$ (781)	\$ (19,057)	\$ 3,074
Preferred stock dividends	(1,265)	(1,265)	(1,265)	(1,268)	(1,265)
Income allocated to participating securities	—	(585)	—	—	(111)
Income (loss) available to common stockholders	\$ (20,051)	\$ 19,439	\$ (2,046)	\$ (20,325)	\$ 1,698
Income (loss) per share, basic	\$ (0.60)	\$ 0.93	\$ (0.17)	\$ (2.81)	\$ 0.75
Income (loss) per share, diluted	\$ (0.60)	\$ 0.86	\$ (0.17)	\$ (2.81)	\$ 0.75
Basic weighted-average shares	33,173	20,810	12,264	7,224	2,249
Diluted weighted-average shares	33,173	22,669	12,264	7,224	2,266
Consolidated Balance Sheet Data:					
Cash and cash equivalents	\$ 52,712	\$ 62,084	\$ 5,151	\$ 7,586	\$ 8,914
Working capital	\$ 125,033	\$ 112,498	\$ 51,161	\$ 45,017	\$ 57,766
Total assets	\$ 675,143	\$ 297,896	\$ 241,049	\$ 214,963	\$ 232,476
Long-term debt	\$ 204,324	\$ 34,533	\$ 99,158	\$ 121,282	\$ 94,439
Stockholders' equity	\$ 371,544	\$ 217,982	\$ 94,901	\$ 72,907	\$ 119,264

No cash dividends on our common stock were declared during any of the periods presented above.

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and notes to consolidated financial statements included elsewhere in this report. This discussion contains forward-looking statements, reflecting our plans and objectives that involve risks and uncertainties. Actual results and the timing of events may differ materially from those contained in these forward-looking statements due to a number of factors, including those discussed in the section entitled “Risk Factors” and elsewhere in this report.

Overview

We are a leading producer and marketer of low-carbon renewable fuels in the United States.

We own and operate eight strategically-located ethanol production facilities. Four of our plants are in the Western states of California, Oregon and Idaho; and four of our plants are located in the Midwestern states of Illinois and Nebraska. Our plants have a combined ethanol production capacity of 515 million gallons per year. We are the sixth largest producer of ethanol in the United States based on annualized volumes. We market all the ethanol and co-products produced at our eight plants as well as ethanol produced by third parties. On an annualized basis, we market over 800 million gallons of ethanol and over 1.5 million tons of ethanol co-products on a dry matter basis. Our business consists of two operating segments: a production segment and a marketing segment.

Our mission is to advance our position and significantly increase our market share as a leading producer and marketer of low-carbon renewable fuels in the United States. We intend to accomplish this goal in part by expanding our ethanol production capacity and distribution infrastructure, accretive acquisitions, lowering the carbon intensity of our ethanol, extending our marketing business into new regional and international markets, and implementing new technologies to promote higher production yields and greater efficiencies.

Production Segment

We produce ethanol and co-products at our eight production facilities described below. Our Pacific Ethanol West plants are located on the West Coast near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages. Our Pacific Ethanol Central plants are located in the Midwest in the heart of the Corn Belt, benefit from low-cost and abundant feedstock production and allow for access to many additional domestic markets. In addition, our ability to load unit trains from the Pacific Ethanol Central plants allows for greater access to international markets.

	Facility Name	Facility Location	Estimated Annual Capacity (gallons)
<i>Pacific Ethanol West</i>	Magic Valley	Burley, ID	60,000,000
	Columbia	Boardman, OR	40,000,000
	Stockton	Stockton, CA	60,000,000
	Madera	Madera, CA	40,000,000
<i>Pacific Ethanol Central</i>	Aurora West	Aurora, NE	110,000,000
	Aurora East	Aurora, NE	45,000,000
	Pekin Wet	Pekin, IL	100,000,000
	Pekin Dry	Pekin, IL	60,000,000

We produce ethanol co-products at our eight production facilities such as wet distillers grains, or WDG, dry distillers grains with solubles, or DDGS, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, distillers yeast and CO₂.

Marketing Segment

We market ethanol and co-products produced by our eight ethanol production facilities and market ethanol produced by third parties. We have extensive customer relationships throughout the Western and Midwestern United States. Our ethanol customers are integrated oil companies and gasoline marketers who blend ethanol into gasoline. Our customers depend on us to provide a reliable supply of ethanol, and manage the logistics and timing of delivery with very little effort on their part. Our customers collectively require ethanol volumes in excess of the supplies we produce at our eight production facilities. We secure additional ethanol supplies from third party plants in California and other third party suppliers in the Midwest where a majority of ethanol producers are located. We arrange for transportation, storage and delivery of ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We market our distillers grains and other feed co-products to dairies and feedlots, in many cases located near our ethanol plants. These customers use our feed co-products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers. We do not market co-products from other ethanol producers.

Acquisition of Aventine

On July 1, 2015, we consummated our acquisition of Aventine under the terms of an Agreement and Plan of Merger dated as of December 30, 2014 by and among Pacific Ethanol, Inc., AVR Merger Sub, Inc., one of our wholly-owned subsidiaries, and Aventine. Under the terms of the acquisition, Aventine became one of our wholly-owned subsidiaries.

We believe the Aventine acquisition is resulting in a number of synergies and strategic advantages. We believe the acquisition has spread commodity and basis price risks across diverse markets and products, assisting in our efforts to optimize margin management; improve our hedging opportunities with a greater correlation to the liquid physical and paper markets in Chicago; and increase our flexibility and alternatives in feedstock procurement for our Midwest and Western production facilities. The acquisition also expands our marketing reach into new markets and extends our mix of co-products. We believe the acquisition will enable us to have deeper market insight and engagement in major ethanol and feed markets outside the Western United States, thereby improving pricing opportunities; allow us to establish access to markets in 48 states for ethanol sales and access many markets with ethanol and co-product sales reaching domestic and international customers; and enable us to use our more diverse mix of co-products to generate strong co-product returns. In addition, the acquisition increased our combined ethanol production capacity to 515 million gallons per year and increased our annualized ethanol marketing volume to over 800 million gallons.

Current Initiatives and Outlook

We experienced a compressed margin environment throughout most of 2015. Overall crush margins, which reflect ethanol and co-product sales prices relative to production inputs such as corn and natural gas, remained low in 2015 compared to 2014. This margin compression is due to lower ethanol prices predominantly caused by higher industry-wide inventory levels creating a supply and demand imbalance in the industry. We have moderated production at our plants, currently at approximately 85% of overall capacity, to better align supply and demand.

We remain confident in the long-term demand for renewable fuels and our ability to execute and create value. Although ethanol currently is at a premium to the wholesale price of gasoline, we believe this underscores the value of ethanol as a high-octane, cleaner-burning and cheapest available liquid transportation fuel.

We expect our acquisition of Aventine to result in significant synergies in multiple areas of our business. Our goal is to achieve at least \$12.0 million annualized in synergistic benefits, and we have thus far achieved 75% of that amount, attaining approximately \$9.0 million annualized in synergistic benefits. We believe our larger, more diversified platform yields significant benefits, including enhanced purchasing power, increased revenues, new product sales and an overall strengthened position as a low-cost producer and marketer of ethanol and high-value co-products.

The regulatory environment continues to support the long-term demand for renewable fuels. California's Low-Carbon Fuel Standard requires refiners to reduce the carbon intensity of their fuels by 10% between 2011 and 2020, which we believe is an aggressive requirement that will necessitate a significant amount of low-carbon fuel to displace gasoline in the California fuel supply. Currently, we receive a \$0.08 to \$0.09 per gallon premium over Midwest ethanol on each California production gallon sold into the California market. We expect this premium to increase as the compliance curve steepens in 2016.

We have undertaken a number of plant improvement initiatives. In February 2016, we entered into a technology license and purchase agreement for our Madera facility for an industrial scale membrane system that separates water from ethanol during the plant's dehydration process. We expect this technology to increase operating efficiencies, lower production costs and reduce the carbon intensity of ethanol produced at our Madera facility. We began producing cellulosic ethanol at our Stockton plant and we are working with our technology provider and the EPA to qualify this ethanol for special premiums over conventional ethanol. We are also working on cogeneration technology at our Stockton plant, and are examining the feasibility of implementing the technology at our Madera facility. We continue to manage our capital spending, focusing on innovative, revenue-enhancing and cost-reducing projects that optimize our use of cash while providing high near-term returns. We incurred \$3.0 million of capital expenditures in the fourth quarter of 2015 and plan to limit capital improvements to \$24.0 million in 2016, the majority of which we intend to adjust based on market conditions and capital resources.

Net exports of ethanol continue to be a positive factor for the industry. According to the U.S. Energy Information Administration, United States exports of ethanol were 87 million gallons in January 2016, a 27% year-over-year increase and the largest single month of exports since November 2014. We expect United States exports to further increase as Brazil migrates to higher blend levels, strong demand from Canada persists and Asia and other parts of the world continue to draw exports from the United States.

Our goals for 2016 include further integrating and optimizing our Pacific Ethanol Central plants to maximize the synergies from our acquisition of Aventine; leveraging our diverse base of production and marketing assets to expand our share of the renewable fuels and ethanol co-product markets; continuing to reinvest in our ethanol production business through initiatives focused on further improving operating efficiencies and yields, expanding capacity and diversifying our revenue and product mix in ways that provide near-term, meaningful returns; and further lowering the carbon intensity of our ethanol by modifying existing operations and investing in new technologies such as co-generation, anaerobic digestion and solar power generation, all of which are directed at expanding our share of the renewable fuels market and delivering long-term, profitable growth.

2015 Financial Performance Summary

Summary

Our consolidated net sales increased by 8%, or \$83.8 million, to \$1,191.2 million for 2015 from \$1,107.4 million for 2014. Our net income available to common stockholders declined by \$39.5 million to a net loss of \$20.1 million for 2015 from net income of \$19.4 million for 2014.

Factors that contributed to our results of operations for 2015 include:

- *Net sales.* The increase in our net sales for 2015 as compared to 2014 was primarily due to the following combination of factors:
 - o *Higher production and marketing sales volumes.* Our net sales for the period increased due to increases in both production and third party gallons sold. Our production sales volume of ethanol increased 74% to 319.2 million gallons for 2015 from 183.5 million gallons for 2014 and our third party sales volume increased 16% to 382.3 million gallons for 2015 from 329.7 million gallons for 2014. The increased production sales volume was primarily due our acquisition of Aventine, which added 134.6 million gallons to our 2015 sales volume.
 - o *Lower ethanol sales prices.* Higher production and marketing sales volumes were partially offset by a decrease in our average ethanol sales price by 32% to \$1.68 per gallon for 2015 as compared to \$2.48 per gallon for 2014.
- *Gross margin.* Our gross margin decreased significantly to 0.6% for 2015 from 9.8% for 2014. The decline in our gross margin was primarily the result of significantly lower corn crush margins driven by lower ethanol sales prices compared to a record year in 2014.

- *Selling, general and administrative expenses.* Our selling, general and administrative expenses, or SG&A, increased by \$6.3 million to \$23.4 million for 2015, as compared to \$17.1 million for 2014, primarily as a result of our acquisition of Aventine. On a per gallon basis, however, our SG&A declined in 2015 compared to 2014.
- *Fair value adjustments and warrant inducements.* Warrants we issued over the past few years are recorded at fair value, updated with quarterly adjustments for changes in their fair values and warrant inducements, resulting in income of \$1.6 million for 2015 as compared to an expense of \$37.5 million for 2014. The expense in 2014 is primarily due to the significant amount by which the price of our common stock increased in 2014, exceeding the exercise prices of our warrants.
- *Interest expense.* Our interest expense increased by \$3.2 million to \$12.6 million for 2015 from \$9.4 million for 2014. This increase is primarily due to increased average debt balances from our assumption of \$145.0 million in term debt from the Aventine acquisition.
- *Benefit for income taxes.* In 2015, we recorded a tax benefit of \$10.0 million related to our taxable losses in 2015 that will be carried back to offset a portion of our 2014 tax liability.

Sales and Margins

We generate sales by marketing all the ethanol produced by our eight ethanol plants, all the ethanol produced by two other ethanol producers in the Western United States and ethanol purchased from other third-party suppliers throughout the United States. We also market ethanol co-products, including WDG and DDGS, wet and dry corn gluten feed, condensed distillers soluble, corn gluten meal, corn germ, corn oil, distillers yeast and CO₂, for our ethanol plants.

Our profitability is highly dependent on various commodity prices, including the market prices of ethanol, corn and natural gas.

Our average ethanol sales price decreased by 32.3% to \$1.68 per gallon in 2015 from \$2.48 per gallon in 2014. Similarly, the average price of ethanol, as reported by the CBOT, decreased by 27.1% to \$1.51 per gallon for 2015 from \$2.07 per gallon for 2014.

Our average cost of corn decreased in 2015 as compared to 2014, positively impacting our corn crush margins. Specifically, our average cost of corn decreased by 21% to \$4.29 per bushel for 2015 from \$5.45 per bushel for 2014. This decrease is commensurate with the decline in the average price of corn as reported by the CBOT.

We have three principal methods of selling ethanol: as a merchant, as a producer and as an agent. See “—Critical Accounting Policies—Revenue Recognition” below.

When acting as a merchant or as a producer, we generally enter into sales contracts to ship ethanol to a customer’s desired location. We support these sales contracts through purchase contracts with several third-party suppliers or through our own production. We manage the necessary logistics to deliver ethanol to our customers either directly from a third-party supplier or from our inventory via truck or rail. Our sales as a merchant or as a producer expose us to significant price risks resulting from potential fluctuations in the market price of ethanol and corn. Our exposure varies depending on the magnitude of our sales and purchase commitments compared to the magnitude of our existing inventory, as well as the pricing terms—such as market index or fixed pricing—of our contracts. We seek to mitigate our exposure to price risks by implementing appropriate risk management strategies.

When acting as an agent for third-party suppliers, we conduct back-to-back purchases and sales in which we match ethanol purchase and sale contracts of like quantities and delivery periods. When acting in this capacity, we receive a predetermined service fee and have little or no exposure to price risks resulting from potential fluctuations in the market price of ethanol. For these sales, we record the marketing fee as net sales.

We believe that our gross profit margins depend primarily on five key factors:

- the market price of ethanol, which we believe is impacted by the degree of competition in the ethanol market; the price of gasoline and related petroleum products; and government regulation, including government mandates;
- the market price of key production input commodities, including corn and natural gas;
- the market price of co-products;
- our ability to anticipate trends in the market price of ethanol, co-products, and key input commodities and implement appropriate risk management and opportunistic strategies; and
- the proportion of our sales of ethanol produced at our ethanol plants to our sales of ethanol produced by unrelated third-parties.

We seek to optimize our gross profit margins by anticipating the factors above and, when resources are available, implementing hedging transactions and taking other actions designed to limit risk and address these factors. For example, we may seek to decrease inventory levels in anticipation of declining ethanol prices and increase inventory levels in anticipation of rising ethanol prices. We may also seek to alter our proportion or timing, or both, of purchase and sales commitments. Furthermore, we may diversify our ethanol feedstock to lower our average costs and/or increase our ethanol sales prices from premiums for low-carbon intensity rated ethanol.

Our limited resources to act upon the anticipated factors described above and/or our inability to anticipate these factors or their relative importance, and adverse movements in the factors themselves, could result in declining or even negative gross profit margins over certain periods of time. Our ability to anticipate these factors or favorable movements in these factors may enable us to generate above-average gross profit margins. However, given the difficulty associated with successfully forecasting any of these factors, we are unable to estimate our future gross profit margins.

Results of Operations

Accounting for the Results of Aventine and PE Op Co.

We closed our acquisition of Aventine on July 1, 2015 and, as a result, our results of operations include Aventine's results of operations only as of and for the six months ended December 31, 2015. Further, since October 6, 2010, our consolidated financial statements have included the financial statements of PE Op Co., the holding company that owns the entities which own the Pacific Ethanol West plants. As such, PE Op Co.'s financial statements in turn include the financial statements of those entities which own the Pacific Ethanol West plants. On October 6, 2010, we purchased a 20% ownership interest in PE Op Co., which gave us the single largest equity position in PE Op Co. Based on our ownership interest as well as our asset management and marketing agreements with PE Op Co., we determined that, beginning on October 6, 2010, we were the primary beneficiary of PE Op Co., and as such, we consolidated PE Op Co.'s financial results with our financial results. We obtained full voting control of PE Op Co. on May 22, 2015 when we became the sole owner of PE Op Co., and as of December 31, 2015, we continued to hold a 100% ownership interest in PE Op Co.

Selected Financial Information

The following selected financial information should be read in conjunction with our consolidated financial statements and notes to our consolidated financial statements included elsewhere in this report, and the other sections of “Management’s Discussion and Analysis of Financial Condition and Results of Operations” contained in this report.

Certain performance metrics that we believe are important indicators of our results of operations include:

	Years Ended December 31,			Percentage Change	
	2015	2014	2013	2015 vs 2014	2014 vs 2013
Production gallons sold (in millions)	319.2	183.5	149.7	74.0%	22.6%
Third party gallons sold (in millions)	382.3	329.7	264.2	16.0%	24.8%
Total gallons sold (in millions)	701.5	513.2	413.9	36.7%	24.0%
Average sales price per gallon	\$ 1.68	\$ 2.48	\$ 2.59	(32.3)%	(4.2)%
Corn cost per bushel—CBOT equivalent	\$ 3.77	\$ 4.21	\$ 5.72	(10.5)%	(26.4)%
Average basis ⁽¹⁾	\$ 0.52	\$ 1.24	\$ 1.60	(58.1)%	(22.5)%
Delivered cost of corn	\$ 4.29	\$ 5.45	\$ 7.32	(21.3)%	(25.5)%
Co-product revenues as % of delivered cost of corn ⁽²⁾	35.8%	32.5%	29.6%	10.2%	9.8%
Average CBOT ethanol price per gallon	\$ 1.51	\$ 2.07	\$ 2.25	(27.1)%	(8.0)%
Average CBOT corn price per bushel	\$ 3.77	\$ 4.16	\$ 5.78	(9.4)%	(28.0)%

- (1) Corn basis represents the difference between the immediate cash price of delivered corn and the future price of corn for Chicago delivery.
- (2) Co-product revenues as a percentage of delivered cost of corn shows our yield based on sales of co-products, including WDG and corn oil, generated from ethanol we produced.

Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014

	Years Ended December 31,		Dollar Change	Percentage Change	Results as a Percentage of Net Sales for the Years Ended	
	2015	2014	Favorable (Unfavorable)	Favorable (Unfavorable)	2015	2014
	(dollars in thousands)					
Net sales	\$1,191,176	\$1,107,412	\$ 83,764	7.6%	100.0%	100.0%
Cost of goods sold	1,183,766	998,927	(184,839)	(18.5)%	99.4%	90.2%
Gross profit	7,410	108,485	(101,075)	(93.2)%	0.6%	9.8%
Selling, general and administrative expenses	23,412	17,108	(6,304)	(36.8)%	2.0%	1.5%
Asset impairments	1,970	–	(1,970)	NM	0.2%	–%
Income (loss) from operations	(17,972)	91,377	(109,349)	NM	(1.5)%	8.3%
Fair value adjustments and warrant inducements	1,641	(37,532)	39,173	NM	0.1%	(3.4)%
Interest expense, net	(12,594)	(9,438)	(3,156)	33.4%	(1.1)%	(0.9)%
Loss on extinguishments of debt	–	(2,363)	2,363	100.0%	–%	(0.2)%
Other income (expense), net	18	(905)	923	NM	–%	(0.1)%
Income (loss) before provision for income taxes	(28,907)	41,139	(70,046)	NM	(2.4)%	3.7%
(Benefit) provision for income taxes	(10,034)	15,137	25,171	NM	(0.8)%	1.4%
Consolidated net income (loss)	(18,873)	26,002	(44,875)	NM	(1.6)%	2.3%
Net (income) loss attributed to noncontrolling interests	87	(4,713)	4,800	NM	–%	(0.4)%
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ (18,786)	\$ 21,289	\$ (40,075)	NM	(1.6)%	1.9%
Preferred stock dividends	(1,265)	(1,265)	–	–%	(0.1)%	(0.1)%
Income allocated to participating securities	–	(585)	585	NM	–%	(0.0)%
Income (loss) available to common stockholders	\$ (20,051)	\$ 19,439	\$ (39,490)	NM	(1.7)%	1.8%

Net Sales

The increase in our consolidated net sales for 2015 as compared to 2014 was primarily due to an increase in our total gallons sold, which was partially offset by a decline in our average sales price per gallon.

We increased both production and third party gallons sold, and our volume of co-products sold, for 2015 as compared to 2014. The increases in volumes of our production gallons and co-products sold are primarily due to additional volumes from our new Pacific Ethanol Central plants, and, to a lesser extent, third party supplier plants. In addition, we expanded our customer base and our sales to a larger national footprint with the addition of regions we cover with our Midwest plants.

Our average sales price per gallon decreased 32.3% to \$1.68 for 2015 compared to our average sales price per gallon of \$2.48 for 2014. Similarly, the average CBOT ethanol price per gallon, declined 27.1% to \$1.51 for 2015 compared to an average CBOT sales price per gallon of \$2.07 for 2014.

Production Segment

Net sales of ethanol from our production segment increased by \$77.3 million, or 17%, to \$527.7 million for 2015 as compared to \$450.4 million for 2014. Our total volume of production ethanol gallons sold increased by 135.7 million gallons, or 74%, to 319.2 million gallons for 2015 as compared to 183.5 million gallons for 2014. Of the additional 135.7 million gallons of ethanol sold in 2015, an aggregate of 134.6 million gallons were attributable to production at our Midwestern plants which we acquired on July 1, 2015. At our average sales price per gallon of \$1.68 for 2015, we generated \$228.0 million in additional net sales from our production segment from the 135.7 million additional gallons of produced ethanol sold in 2015 as compared to 2014. The decline of \$0.80, or 32.3%, in our average sales price per gallon in 2015 as compared to 2014 reduced our net sales from our production segment by \$150.7 million.

Net sales of co-products increased \$70.6 million, or 63%, to \$182.5 million for 2015 as compared to \$111.9 million for 2014. Our total volume of co-products sold increased by 0.6 million tons to 2.1 million tons for 2015 from 1.5 million tons for 2014. At our average sales price per ton of \$88.27 for 2015, we generated \$53.3 million in additional net sales from the 0.6 million additional tons of co-products sold in 2015 as compared to 2014. In addition, the increase of \$15.65, or 21.6%, in our average sales price per ton in 2015 as compared to 2014 contributed to the increase in our net sales resulting from higher sales volumes by \$17.3 million.

Marketing Segment

Net sales of ethanol from our marketing segment decreased by \$64.0 million, or 12%, to \$481.0 million for 2015 as compared to \$545.0 million for 2014.

Our total volume of ethanol gallons sold by our marketing segment increased by 188.3 million gallons, or 37%, to 701.5 million gallons for 2015 as compared to 513.2 million gallons for 2014. Our additional production gallons sold accounted for 135.7 million gallons of this increase, as noted above, and our additional third-party gallons sold accounted for 52.6 million gallons of this increase.

The increase in production gallons sold by our marketing segment contributed insignificantly to net sales generated by our marketing segment, resulting in an additional \$1.3 million in net sales, which were eliminated upon consolidation.

At our average sales price per gallon of \$1.68 for 2015, we generated \$88.3 million in additional net sales from our marketing segment from the 52.6 million gallons in additional third-party ethanol sold in 2015 as compared to 2014. However, the decline of \$0.80, or 32.3%, in our average sales price per gallon in 2015 as compared to 2014 reduced our net sales from third-party ethanol sold by our marketing segment by \$153.6 million.

Cost of Goods Sold and Gross Profit

Our consolidated gross profit declined significantly to \$7.4 million for 2015 from a record \$108.5 million for 2014, representing a gross margin of 0.6% for 2015 compared to 9.8% for 2014. Our consolidated gross profit decreased primarily due to a decline of \$0.80 in our average sales price per gallon in 2015 as compared to 2014.

Production Segment

Our production segment reduced our consolidated gross profit by \$98.4 million for 2015 as compared to 2014. Of this amount, \$94.3 million is attributable to lower margins resulting primarily from our lower average sales price per gallon in 2015 as compared to 2014, and \$4.1 million in lower gross profit is attributed to the 135.7 million gallon increase in production volumes sold in 2015 as compared to 2014.

Marketing Segment

Our marketing segment reduced our consolidated gross profit by \$3.4 million for 2015 as compared to 2014. Of this amount, \$4.4 million is attributable to lower margins resulting primarily from our lower average sales price per gallon in 2015 as compared to 2014, which was partially offset by \$1.0 million in additional gross profit from the 188.3 million gallon increase in marketing volumes in 2015 as compared to 2014.

Selling, General and Administrative Expenses

Our SG&A increased \$6.3 million to \$23.4 million for 2015 as compared to \$17.1 million for the same period in 2014. The increase in SG&A is primarily due to our new Pacific Ethanol Central operations. On a per gallon basis, however, our SG&A declined in 2015 as compared to 2014.

Asset Impairments

We recorded an asset impairment charge of \$2.0 million for the year ended December 31, 2015 related to our abandonment of certain accounting and information technology systems in connection with our integration of Aventine. We did not record any asset impairment for the year ended December 31, 2014.

Fair Value Adjustments and Warrant Inducements

We issued warrants in various financing transactions from 2010 through 2013. These warrants were initially recorded at fair value and are adjusted quarterly. As a result of quarterly fair value adjustments and warrant inducements, we recorded income of \$1.6 million for 2015 and an expense of \$37.5 million for 2014.

These changes in fair value are primarily due to the volatility in the market price of our common stock from period to period. The substantial change in fair value for 2014 occurred because the exercise prices of our warrants were well below the market price of our common stock throughout the year, most notably at March 31, 2014. At December 31, 2013, the market price of our common stock was \$5.09 per share and our outstanding warrants had a weighted-average exercise price of \$7.27 per share. At March 31, 2014, the market price of our common stock had increased to \$15.58 per share, and our outstanding warrants were in-the-money and had significant intrinsic value. At December 31, 2014, the market price of our common stock had declined slightly from the prior quarter to \$10.33.

These fair value adjustments will continue in future periods until all of our warrants are exercised or expire. These adjustments will generally reduce our net income or increase our net loss if the market price of our common stock increases from the prior quarter through the date of a warrant's exercise, if exercised during the quarter, or if our common stock increases on a quarter over quarter basis for warrants outstanding at the end of a quarter. Conversely, the adjustments will generally increase our net income or reduce our net loss if the market price of our common stock declines in these scenarios.

We paid an aggregate of \$2.3 million in cash to certain warrant holders as inducements to exercise their warrants in 2014. No such payments were made in 2015.

Interest Expense

Interest expense, net increased by \$3.2 million to \$12.6 million for 2015 from \$9.4 million for 2014. Interest expense is primarily related to our debt associated with our production segment. The increase in interest expense, net for 2015 is primarily related to our increased term debt outstanding due to Aventine's \$145.6 million in term debt.

Loss on Extinguishments of Debt

We extinguished certain PE Op Co. debt in 2014 by paying \$2.4 million in cash in excess of the amount of the debt, and as such, recorded a loss on extinguishments of debt. We retired a total of \$70.8 million in debt during 2014, eliminating all parent level debt and reducing our consolidated third-party debt at the plant level to \$17.0 million as of December 31, 2014. No such debt extinguishments were made in 2015.

Provision (Benefit) for Income Taxes

In 2015, we generated losses, which are able to be carried back to offset prior year's income subject to income tax, resulting in a tax benefit. As a result, this increased our income tax receivable to \$10.7 million, which we expect to receive in 2016. In addition, in 2015, we recognized a \$1.5 million tax benefit related to adjustments to our tax asset valuation allowance from a prior period.

Net (Income) Loss Attributed to Noncontrolling Interests

Net (income) loss attributed to noncontrolling interests relates to our consolidated treatment of PE Op Co., which indirectly owns our Pacific Ethanol West plants. We consolidated PE Op Co.'s financial results for the periods presented, however, because we owned less than 100% of PE Op Co. for portions of the periods, we reduced our consolidated net income (loss) for the noncontrolling interests, which were the ownership interests that we did not own. The decreases in net income attributed to noncontrolling interests for the periods are primarily due to lower operating income from lower commodity margins, much of which was generated at the plant level. Going forward, given our 100% ownership of PE Op Co., no amounts will be recorded for noncontrolling interests.

Preferred Stock Dividends

Shares of our Series B Preferred Stock are entitled to quarterly cumulative dividends payable in arrears in an amount equal to 7% per annum of the purchase price per share of the Series B Preferred Stock. We accrued and paid in cash dividends of \$1.3 million for each of 2015 and 2014 in respect of our Series B Preferred Stock.

Year Ended December 31, 2014 Compared to the Year Ended December 31, 2013

	Years Ended		Dollar Change Favorable (Unfavorable)	Percentage Change Favorable (Unfavorable)	Results as a Percentage of Net Sales for the Years Ended	
	December 31,				December 31,	
	2014	2013			2014	2013
	(dollars in thousands)					
Net sales	\$1,107,412	\$ 908,437	\$ 198,975	21.9%	100.0%	100.0%
Cost of goods sold	998,927	875,507	(123,420)	(14.1)%	90.2%	96.4%
Gross profit	108,485	32,930	75,555	229.4%	9.8%	3.6%
Selling, general and administrative expenses	17,108	14,021	(3,087)	(22.0)%	1.5%	1.5%
Income from operations	91,377	18,909	72,468	383.2%	8.3%	2.1%
Fair value adjustments and warrant inducements	(37,532)	(1,013)	(36,519)	(3,605.0)%	(3.4)%	(0.1)%
Interest expense, net	(9,438)	(15,671)	6,233	39.8%	(0.9)%	(1.7)%
Loss on extinguishments of debt	(2,363)	(3,035)	672	22.1%	(0.2)%	(0.3)%
Other expense, net	(905)	(352)	(553)	(157.1)%	(0.1)%	—%
Income (loss) before provision for income taxes	41,139	(1,162)	42,301	NM	3.7%	(0.1)%
Provision for income taxes	15,137	—	(15,137)	NM	1.4%	—%
Consolidated net income (loss)	26,002	(1,162)	27,164	NM	2.3%	(0.1)%
Net (income) loss attributed to noncontrolling interests	(4,713)	381	(5,094)	NM	(0.4)%	—%
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ 21,289	\$ (781)	\$ 22,070	NM	1.9%	(0.1)%
Preferred stock dividends	(1,265)	(1,265)	—	—%	(0.1)%	(0.1)%
Income allocated to participating securities	(585)	—	(585)	—%	—%	—%
Income (loss) available to common stockholders	\$ 19,439	\$ (2,046)	\$ 21,485	NM	1.8%	(0.2)%

Net Sales

The increase in our consolidated net sales for 2014 as compared to 2013 was primarily due to an increase in our total gallons sold, which was partially offset by a decline in our average sales price per gallon.

We increased both production and third-party gallons sold, and our volume of co-products sold, for 2014 as compared to 2013.

The increases in our production gallons and third-party gallons sold are primarily due to increased production rates at our Pacific Ethanol West plants and third party supplier plants, respectively, including as a result of the restart of production at our Madera plant. The increase in our volume of co-products sold is due to increased production at our Pacific Ethanol West plants, including as a result of the restart of production at our Madera plant. We and our third party suppliers increased production rates due to higher industry-wide corn crush margins resulting from lower corn costs and relatively higher ethanol prices due to tighter ethanol supplies relative to demand, especially in the Western United States due to weather conditions in the first quarter of 2014 and ongoing rail logistics challenges which constrained the flow of ethanol and co-products from the Midwest to the markets in which we operate. In addition, we expanded our customer base and our sales within the regions we cover which contributed to higher third party gallons sold.

Our average sales price per gallon decreased 4.2% to \$2.48 for 2014 compared to our average sales price per gallon of \$2.59 for 2013. The average CBOT ethanol price per gallon, however, declined 8% to \$2.07 for 2014 compared to an average CBOT sales price per gallon of \$2.25 for 2013.

Production Segment

Net sales of ethanol from our production segment increased by \$62.9 million, or 16%, to \$450.4 million for 2014 as compared to \$387.5 million for 2013. Our total volume of production ethanol gallons sold increased by 33.8 million gallons, or 23%, to 183.5 million gallons for 2014 as compared to 149.7 million gallons for 2013. Of the additional 33.8 million gallons of ethanol sold in 2014, an aggregate of 20.0 million gallons were attributable to the restart of our Madera plant. At our average sales price per gallon of \$2.48 for 2014, we generated \$83.8 million in additional net sales from our production segment from the 33.8 million additional gallons of produced ethanol sold in 2014 as compared to 2013. The decline of \$0.11, or 4.2%, in our average sales price per gallon in 2014 as compared to 2013 reduced our net sales from our production segment by \$20.9 million.

Net sales of co-products decreased by \$7.8 million, or 7%, to \$111.9 million for 2014 as compared to \$119.7 million for 2013. Our total volume of co-products sold increased by 0.17 million tons to 1.50 million tons for 2014 from 1.33 million tons for 2013. At our average sales price per ton of \$72.62 for 2014, we generated \$12.3 million in additional net sales from our production segment from the 0.17 million additional tons of co-products sold in 2014 as compared to 2013. However, the decline of \$14.61, or 16.7%, in our average sales price per ton in 2014 as compared to 2013 fully offset the increase in our net sales resulting from higher sales volumes, reducing our net sales from our production segment by \$20.1 million. Although net sales of our other co-products increased in 2014 as compared to 2013, we believe the overall changes in sales volumes and prices of those co-products were immaterial to our net sales for 2014.

Marketing Segment

Net sales of ethanol from our marketing segment increased by \$143.7 million, or 36%, to \$545.0 million for 2014 as compared to \$401.3 million for 2013.

Our total volume of ethanol gallons sold by our marketing segment increased by 99.3 million gallons, or 24%, to 513.2 million gallons for 2014 as compared to 413.9 million gallons for 2013. Our additional production gallons sold accounted for 33.8 million gallons of this increase, as noted above, and our additional third-party gallons sold accounted for 65.5 million gallons of this increase.

The increase in production gallons sold by our marketing segment contributed insignificantly to net sales generated by our marketing segment, resulting in an additional \$0.6 million in net sales, which were eliminated upon consolidation.

At our average sales price per gallon of \$2.48 for 2014, we generated \$162.4 million in additional net sales from our marketing segment from the 65.5 million gallons in additional third-party ethanol sold in 2014 as compared to 2013. However, the decline of \$0.11, or 4.2%, in our average sales price per gallon in 2014 as compared to 2013 reduced our net sales from third-party ethanol sold by our marketing segment by \$19.3 million.

Cost of Goods Sold and Gross Profit

Our consolidated gross profit improved significantly to \$108.5 million for 2014 from \$32.9 million for 2013, representing a gross margin of 9.8% for 2014 compared to 3.6% for 2013. Our consolidated gross profit increased primarily due to our production gallons sold at significantly improved corn crush margins, predominantly related to lower corn costs and tighter ethanol supplies relative to demand as well as higher ethanol prices in the Western United States due to weather conditions in the first quarter of 2014 and rail logistics challenges which constrained the flow of ethanol and co-products from the Midwest to the markets in which we operate. Crush and commodity margins reflect ethanol and co-product sales prices relative to ethanol production inputs such as corn and natural gas. Our ongoing plant efficiency and yield improvement initiatives also positively impacted our margins.

Production Segment

Our production segment increased our consolidated gross profit by \$73.8 million for 2014 as compared to 2013. Of this amount, \$57.4 million is attributable to higher margins resulting primarily from improved corn crush margins and \$16.4 million is attributable to the 33.8 million gallon increase in production volumes sold in 2014 as compared to 2013.

Marketing Segment

Our marketing segment increased our consolidated gross profit by \$0.1 million for 2014 as compared to 2013. Of this amount, \$2.4 million is attributable to additional gross profit from the 99.3 million gallon increase in marketing volumes in 2014 as compared to

2013, which was partially offset by \$2.3 million in lower gross profit resulting primarily from our lower average sales price per gallon in 2014 as compared to 2013.

Selling, General and Administrative Expenses

Our SG&A increased \$3.1 million to \$17.1 million for 2014 as compared to \$14.0 million for the same period in 2013. The increase in SG&A is primarily due to an increase in compensation costs of \$1.0 million due to incentive compensation tied to our profitability and an increase in professional fees of \$1.8 million due to increased corporate and plant activity, including \$0.7 million related to our acquisition of Aventine.

Fair Value Adjustments and Warrant Inducements

We issued certain warrants in various financing transactions from 2010 through 2013. These warrants were initially recorded at fair value and are adjusted quarterly. As a result of quarterly adjustments to their fair values and warrant inducements, we recorded an expense of \$37.5 million for 2014 and \$1.0 million for 2013.

The significant expense and changes in fair value in 2014 are primarily due to the increased number of warrants issued in the three months ended March 31, 2013 and the volatility in the market price of our common stock from period to period. The substantial change in fair value for 2014 occurred because the exercise prices of our warrants were well below the market price of our common stock throughout the year, most notably at March 31, 2014. At December 31, 2013, the market price of our common stock was \$5.09 per share and our outstanding warrants had a weighted-average exercise price of \$7.27 per share. At March 31, 2014, the market price of our common stock had increased to \$15.58 per share, and our outstanding warrants were in-the-money and had significant intrinsic value. At December 31, 2014, the market price of our common stock had declined slightly from the prior quarter to \$10.33.

These fair value adjustments will continue in future periods until all of our warrants are exercised or expire. These adjustments will generally reduce our net income or increase our net loss if the market price of our common stock increases from the prior quarter through the date of a warrant's exercise, if exercised during the quarter, or if our common stock increased on a quarter over quarter basis for warrants outstanding at the end of a quarter. Conversely, the adjustments will generally increase our net income or reduce our net loss if the market price of our common stock declines in these scenarios.

We paid an aggregate of \$2.3 million and \$0.8 million in cash to certain warrant holders as inducements to exercise their warrants in 2014 and 2013, respectively.

Interest Expense

Interest expense, net declined by \$6.2 million to \$9.4 million for 2014 from \$15.7 million for 2013. The decrease in interest expense, net for these periods, which were primarily related to our production segment, is due to decreased average debt balances, partially offset by accelerations of debt discount and deferred financing fees of an aggregate of \$2.1 million for 2014, due to the early retirement of the debt associated with our Pacific Ethanol West plants and our senior unsecured notes.

Loss on Extinguishments of Debt

We extinguished certain PE Op Co. debt by paying \$2.4 million in cash in excess of the amount of the debt, and as such, recorded a loss on extinguishments of debt. We retired a total of \$70.8 million in debt during 2014, eliminating all parent level debt and reducing our consolidated third-party debt at the Pacific Ethanol West plant level to \$17.0 million as of December 31, 2014.

Other Expense, Net

Other expense, net increased by \$0.5 million to \$0.9 million for 2014 from \$0.4 million for 2013. The increase in other expense, net is primarily due to our significantly reduced debt balances in 2014.

Provision for Income Taxes

In 2014, we generated income subject to income tax. Our fair value adjustments and warrant inducements are not tax deductible and thus resulted in larger taxable income as compared to reported income before our provision for income taxes. On a cash basis, we applied our net operating loss carryforwards to a portion of our taxable income for the year.

Net (Income) Loss Attributed to Noncontrolling Interests

Net (income) loss attributed to noncontrolling interests relates to our consolidated treatment of PE Op Co., and represents the noncontrolling interest of other owners in PE Op Co.'s income or losses. We consolidated PE Op Co.'s financial results for the periods presented, however, because we owned less than 100% of PE Op Co. during the periods, we accordingly reduced our net income (loss) for the noncontrolling interests, which represents the remaining ownership interests that we did not own. We increased our ownership interest in PE Op Co. to 96% during 2014. In early 2013, when we owned a smaller percentage of PE Op Co., gross margins and profits were lower than in the latter part of the year when we owned a higher percentage of PE Op Co. As a result, income attributed to the noncontrolling interests was lower and income attributed to us was higher as we owned more of PE Op Co. during periods of higher gross margins and profits.

Preferred Stock Dividends

Shares of our Series B Preferred Stock are entitled to quarterly cumulative dividends payable in arrears in an amount equal to 7% per annum of the purchase price per share of the Series B Preferred Stock. We accrued and paid in cash dividends of \$1.3 million for each of 2014 and 2013 in respect of our Series B Preferred Stock.

Liquidity and Capital Resources

During 2015, we funded our operations primarily from cash on hand, including cash held by Aventine as of the closing of our acquisition of Aventine, and advances from Kinegy's revolving credit facility. These funds were also used to make capital expenditures, payoff Aventine's revolving credit facility, make payments on our capital leases and pay dividends in respect of our Series B Preferred Stock.

Our current available capital resources consist of cash on hand and amounts available for borrowing under Kinegy's credit facility. We expect that our future available capital resources will consist primarily of our remaining cash balances, amounts available for borrowing, if any, under our credit facilities, cash generated from operations and proceeds from any warrant exercises.

We believe that current and future available capital resources, revenues generated from operations, and other existing sources of liquidity, including our credit facilities, will be adequate to meet our anticipated capital requirements for at least the next twelve months.

Quantitative Year-End Liquidity Status

We believe that the following amounts provide insight into our liquidity and capital resources. The following selected financial information should be read in conjunction with our consolidated financial statements and notes to consolidated financial statements included elsewhere in this report, and the other sections of "Management's Discussion and Analysis of Financial Condition and Results of Operations" contained in this report. The information below as of December 31, 2015 includes amounts consolidated from our acquisition of Aventine. The information below as of July 1, 2015 represents the corresponding Aventine amounts outstanding as of July 1, 2015, the effective date of the acquisition (dollars in thousands).

	Pacific Ethanol		Aventine
	December 31, 2015	December 31, 2014	July 1, 2015
Cash and cash equivalents	\$ 52,712	\$ 62,084	\$ 18,756
Current assets	\$ 197,942	\$ 137,945	\$ 69,149
Property and equipment, net	\$ 464,960	\$ 155,302	\$ 312,781
Current liabilities	\$ 72,909	\$ 25,447	\$ 27,233
Notes payable, noncurrent portion	\$ 204,324	\$ 34,533	\$ 156,465
Working capital	\$ 125,033	\$ 112,498	\$ 41,916
Working capital ratio	2.71	5.42	2.54

Restricted Net Assets

At December 31, 2015, we had approximately \$164.0 million of net assets at our subsidiaries that were not available to be transferred to the parent company in the form of dividends, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

Changes in Working Capital and Cash Flows

Working capital increased to \$125.0 million at December 31, 2015 from \$112.5 million at December 31, 2014 as a result of an increase of \$60.0 million in current assets, partially offset by an increase of \$47.5 million in current liabilities.

Current assets increased primarily due to an increase of \$42.3 million in inventories and \$26.7 million in accounts receivable resulting primarily from our new Pacific Ethanol Central operations, and an increase of \$2.5 million in income tax receivables resulting predominantly from our net losses in 2015 that may be carried back to offset the prior year's income.

Our cash and cash equivalents declined by \$9.4 million at December 31, 2015 as compared to December 31, 2014 due to \$26.8 million of cash used in our operations and \$6.3 million of cash used in our investing activities, offset by \$23.8 million of cash provided by our financing activities, as discussed below.

Our current liabilities increased primarily due to an increase of \$21.3 million in accounts payable and accrued liabilities resulting from our new Pacific Ethanol Central operations and the reclassification of \$17.0 million of long-term debt as current liabilities as the maturity date of the debt became within one year. This debt was associated with our Pacific Ethanol West plants and was repaid in February 2016.

Cash provided by or used in our Operating Activities

Cash provided by our operating activities declined by \$115.2 million in 2015 as compared to 2014. We used \$26.8 million of cash in our operating activities in 2015. The decline in cash provided by our operating activities is primarily due to lower net income caused by reduced margins resulting from lower ethanol prices. Additional factors that contributed to the decline in cash provided by our operating activities include:

- an increase in accounts receivable of \$16.7 million primarily due to higher sales volumes attributable to our new Pacific Ethanol Central operations;
- an increase in inventory of \$17.2 million primarily due to higher sales volumes attributable to our new Pacific Ethanol Central operations; and
- a decrease in accounts payable and accrued expenses of \$11.9 million due to the timing of payments.

These amounts were partially offset by:

- an increase in depreciation and amortization of \$10.4 million due to additional assets subject to depreciation and amortization from our acquisition of Aventine.

Cash provided by or used in our Investing Activities

Cash used in our investing activities declined by \$12.9 million in 2015 as compared to 2014. We used \$6.3 million of cash in our investing activities in 2015. The decline in cash used in our investing activities is primarily due to \$18.8 million in cash acquired in connection with our acquisition of Aventine upon closing the transaction. Additional factors that contributed to the decline in cash used in our investing activities include:

- a decrease of \$6.0 million in our purchases of PE Op Co. ownership interests. We used \$6.0 million of cash in 2014 to acquire the remaining 4% of PE Op Co. ownership interests. We did not expend any amounts in 2015 to purchase PE Op Co. ownership interests.

These amounts were partially offset by:

- an increase in expenditures of \$7.2 million for additions to property and equipment associated with our plant improvement initiatives; and
- an increase of \$4.6 million for purchases of temporary cash collateralized letters of credit related to our new Pacific Ethanol Central operations.

Cash provided by or used in our Financing Activities

Cash provided by our financing activities increased by \$35.9 million in 2015 as compared to 2014. We generated \$23.8 million of cash from our financing activities in 2015. The increase in cash provided by our financing activities is primarily due to \$45.1 million of additional borrowings under Kinerget's credit facility. Additional factors that contributed to the increase in cash provided by our financing activities include:

- a decline of \$26.0 million in payments to retire certain indebtedness of the Pacific Ethanol West plants;
- a decline of \$17.0 million in funds used to purchase outstanding indebtedness of the Pacific Ethanol West plants; and
- a decline of \$14.0 million in payments on our senior unsecured notes.

We retired a significant amount of indebtedness in 2014 through the direct repayment or the purchase of our outstanding consolidated debt.

These amounts were partially offset by:

- a decline of \$26.1 million in proceeds from the sale of our common stock and warrants. We raised capital in 2014 through the sale of common stock and warrants. We did not raise capital by selling common stock or warrants in 2015; and
- a decline of \$43.3 million in proceeds from the exercise of our outstanding warrants. We processed numerous warrant exercises in 2014 driven by a substantial increase in the price per share of our common stock. Warrant exercises did not recur in any significant amount in 2015.

Kinergy Operating Line of Credit

Kinergy maintains an operating line of credit for an aggregate amount of up to \$75.0 million. The credit facility expires on December 31, 2020. Interest accrues under the credit facility at a rate equal to (i) the three-month London Interbank Offered Rate (“LIBOR”), plus (ii) a specified applicable margin ranging from 1.75% to 2.75%. The credit facility’s monthly unused line fee is 0.25% to 0.375% of the amount by which the maximum credit under the facility exceeds the average daily principal balance during the immediately preceding month. Payments that may be made by Kinergy to Pacific Ethanol as reimbursement for management and other services provided by Pacific Ethanol to Kinergy are limited under the terms of the credit facility to \$1.5 million per fiscal quarter. Payments that may be made by Pacific Ag. Products, LLC, or PAP, to Pacific Ethanol as reimbursement for management and other services provided by Pacific Ethanol to PAP are limited under the terms of the credit facility to \$0.5 million per fiscal quarter. PAP, one of our indirect wholly-owned subsidiaries, markets our co-products and also provides raw material procurement services to our subsidiaries.

The credit facility also includes the accounts receivable of PAP as additional collateral.

For all monthly periods in which excess availability falls below a specified level, Kinergy and PAP must collectively maintain a fixed-charge coverage ratio (calculated as a twelve-month rolling earnings before interest, taxes, depreciation and amortization (EBITDA) divided by the sum of interest expense, capital expenditures, principal payments of indebtedness, indebtedness from capital leases and taxes paid during such twelve-month rolling period) of at least 2.0 and are prohibited from incurring certain additional indebtedness (other than specific intercompany indebtedness). Kinergy’s and PAP’s obligations under the credit facility are secured by a first-priority security interest in all of their assets in favor of the lender. Kinergy and PAP believe they are in compliance with this covenant. The following table summarizes Kinergy’s financial covenants and actual results for the periods presented (dollars in thousands):

	Years Ended December 31,	
	2015	2014
Fixed Charge Coverage Ratio Requirement	2.00	2.00
Actual	10.02	17.66
Excess	8.02	15.66

Pacific Ethanol has guaranteed all of Kinergy’s obligations under the credit facility. As of December 31, 2015, Kinergy had an outstanding balance of \$61.0 million and an available borrowing base under the credit facility of \$67.2 million, representing \$6.2 million of excess availability under the credit facility.

Pacific Ethanol West Term Debt and Operating Line of Credit

Our indebtedness associated with our Pacific Ethanol West plants as of December 31, 2015 consisted of a \$32.5 million tranche A-1 term loan and a \$26.3 million tranche A-2 term loan. Pacific Ethanol, Inc. holds \$41.8 million of these term loans, which are eliminated in consolidation. The term debt required monthly interest payments at a floating rate equal to the three-month LIBOR or the Prime Rate of interest, at our election, plus 10.0%. At December 31, 2015, the average interest rate was approximately 13.25%. Repayments of principal were based on available free cash flow of the Pacific Ethanol West plants, until maturity, when all principal amounts were due.

The term loans represented permanent financing and were secured by a perfected, first-priority security interest in all of the assets, including inventories and all rights, title and interest in all tangible and intangible assets, of the Pacific Ethanol West plants. The creditors under the term loans for the Pacific Ethanol West plants did not have recourse to Pacific Ethanol, Inc.

On February 26, 2016, we retired the \$17.0 million outstanding balance by purchasing the lender's position for cash at par without any prepayment penalty. This purchase increased the amount of the term loans held by us to a combined \$58.8 million. As a result, we have no continuing obligations to any third-party lender under the credit agreements associated with this term debt.

Pacific Ethanol Central Term Debt

On July 1, 2015, upon effectiveness of the Aventine acquisition, Aventine became one of our wholly-owned subsidiaries and, on a consolidated basis, the combined company became obligated with respect to Aventine's term loan and revolving credit facilities. Aventine's creditors under Aventine's term loan and revolving credit facilities have recourse solely against Aventine and its subsidiaries and not against Pacific Ethanol, Inc. or its other direct or indirect subsidiaries. As of July 1, 2015, Aventine's revolving line of credit had an outstanding balance of approximately \$13.8 million. On July 1, 2015, we repaid, on behalf of Aventine, approximately \$14.5 million, including approximately \$0.7 million in termination fees, representing all amounts owed under the revolving line of credit.

As of December 31, 2015, Pacific Ethanol Central's term loan facility had an outstanding balance of approximately \$145.6 million. Interest on the term loan facility accrues and may be paid in cash at a rate of 10.5% per annum or may be paid in-kind at a rate of 15.0% per annum by adding such interest to the outstanding principal balance. If we elect to pay interest in-kind, the interest is capitalized at the end of each quarter. The term loan facility matures on September 24, 2017. The term loan facility is secured through a first-priority lien on substantially all of Aventine's assets and contains customary financial covenants, including the requirement that Aventine maintain a cash balance of at least \$2.0 million.

Pacific Ethanol Debt

Senior Unsecured Notes

On January 11, 2013 we issued and sold \$22.2 million in aggregate principal amount of senior unsecured notes and warrants to purchase an aggregate of 1.7 million shares of our common stock for aggregate net proceeds of \$22.1 million. As of December 31, 2015, we have fully repaid these notes and the warrants have been exercised.

Effects of Inflation

The impact of inflation was not significant to our financial condition or results of operations for 2015, 2014 or 2013.

Contractual Obligations

The following table outlines payments due under our significant contractual obligations (in thousands):

Contractual Obligations At December 31, 2015	2016	2017	2018	2019	2020	Thereafter	Total
Sourcing commitments ⁽¹⁾	\$ 26,486	\$ –	\$ –	\$ –	\$ –	\$ –	\$ 26,486
Debt principal	–	145,619	–	–	61,003	–	206,622
Debt interest ⁽²⁾	16,510	12,688	1,220	1,220	1,220	–	32,858
Capital projects	5,197	–	–	–	–	–	5,197
Operating leases ⁽³⁾	15,662	11,647	8,212	5,558	953	1,649	43,681
Capital leases ⁽³⁾	4,630	3,731	547	–	–	–	8,908
Preferred dividends ⁽⁴⁾	1,265	1,265	1,265	1,265	1,265	1,265	7,590
Total commitments	<u>\$ 69,750</u>	<u>\$ 174,950</u>	<u>\$ 11,244</u>	<u>\$ 8,043</u>	<u>\$ 64,441</u>	<u>\$ 2,914</u>	<u>\$ 331,342</u>

- (1) Unconditional purchase commitments for production materials incurred in the normal course of business.
- (2) Payments based on interest rates and balances as of December 31, 2015 through maturity.
- (3) Future minimum payments under capital and non-cancelable operating leases.
- (4) Represents dividends on 926,942 shares of Series B Preferred Stock. Dividends accrue until Series B Preferred Stock is converted to common stock or redeemed. The “thereafter” amount includes only one additional year of dividends.

The above table outlines our obligations as of December 31, 2015 and does not reflect the changes in our obligations that occurred after that date.

Critical Accounting Policies

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of net sales and expenses for each period. The following represents a summary of our critical accounting policies, defined as those policies that we believe are the most important to the portrayal of our financial condition and results of operations and that require management’s most difficult, subjective or complex judgments, often as a result of the need to make estimates about the effects of matters that are inherently uncertain.

Revenue Recognition

We recognize revenue when it is realized or realizable and earned. We consider revenue realized or realizable and earned when there is persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable, and collection is reasonably assured. We derive revenue primarily from sales of ethanol and related co-products. We recognize revenue when title transfers to our customers, which is generally upon the delivery of these products to a customer’s designated location. These deliveries are made in accordance with sales commitments and related sales orders entered into with customers either verbally or in written form. The sales commitments and related sales orders provide quantities, pricing and conditions of sales. In this regard, we engage in three basic types of revenue generating transactions:

- *As a producer.* Sales as a producer consist of sales of our inventory produced at our ethanol production facilities.
- *As a merchant.* Sales as a merchant consist of sales to customers through purchases from third-party suppliers in which we may or may not obtain physical control of the ethanol or co-products in which shipments are directed from our suppliers to our terminals or direct to our customers but for which we accept the risk of loss in the transactions.

As an agent. Sales as an agent consist of sales to customers through purchases from third-party suppliers in which the risks and rewards of inventory ownership remain with third-party suppliers and we receive a predetermined service fee under these transactions.

The following table shows our net sales generated as a producer, a merchant and as an agent for the years presented (in thousands):

	For the Years Ended December 31,		
	2015	2014	2013
Producer	\$ 710,114	\$ 562,281	\$ 507,159
Merchant	479,551	543,222	399,350
Agent	1,511	1,909	1,928
	<u>\$ 1,191,176</u>	<u>\$ 1,107,412</u>	<u>\$ 908,437</u>

Revenue from sales of third-party ethanol and its co-products is recorded net of costs when we are acting as an agent between a customer and a supplier and gross when we are a principal to the transaction. Several factors are considered to determine whether we are acting as an agent or principal, most notably whether we are the primary obligor to the customer, whether we have inventory risk and related risk of loss or whether we add meaningful value to the supplier's product or service. Consideration is also given to whether we have latitude in establishing the sales price or have credit risk, or both. When we act as an agent, we record revenues on a net basis, or our predetermined fees and any associated freight, based upon the amount of net revenues retained in excess of amounts paid to suppliers.

We record revenues based upon the gross amounts billed to our customers in transactions where we act as a producer or a merchant and obtain title to ethanol and its co-products and therefore own the product and any related unmitigated inventory risk for the ethanol, regardless of whether we actually obtain physical control of the product.

Warrants and Conversion Features Carried at Fair Value

We have recorded our warrants issued since 2010 and the conversion features of our subordinated convertible notes issued in 2013 at fair value. We believe the valuation of these warrants and conversion features is a critical accounting estimate because valuation estimates obtained from third parties involve inputs other than quoted prices to value the warrants and conversion features. Changes in these estimates, and in particular, certain of the inputs to the valuation estimates, can be volatile from period to period and may markedly impact the total mark-to-market valuation of the warrants and convertible notes recorded as fair value adjustments in our consolidated statements of operations. We recorded income from fair value adjustments and warrant inducements of \$1.6 million and expenses from fair value adjustments and warrant inducements of \$37.5 million and \$1.0 million for the years ended December 31, 2015, 2014 and 2013, respectively. Our senior convertible notes issued in 2013 were fully retired in 2014.

Impairment of Long-Lived and Intangible Assets

Our long-lived assets have been primarily associated with our ethanol production facilities, reflecting their original cost, adjusted for depreciation and any subsequent impairment.

We assess the impairment of long-lived assets, including property and equipment, purchased intangibles subject to amortization and other long-lived assets, when events or changes in circumstances indicate that the fair value of an asset could be less than the net book value of the asset. Generally, we assess long-lived assets for impairment by first determining the forecasted, undiscounted cash flows each asset is expected to generate plus the net proceeds expected from the sale of the asset. If the amount of proceeds is less than the carrying value of the asset, we then determine the fair value of the asset. An impairment loss would be recognized when the fair value is less than the related net book value, and an impairment expense would be recorded in the amount of the difference. Forecasts of future cash flows are judgments based on our experience and knowledge of our operations and the industry in which we operate. These forecasts could be significantly affected by future changes in market conditions, the economic environment, including inflation, and the purchasing decisions of our customers.

We review our intangible assets with indefinite lives at least annually or more frequently if impairment indicators arise. In our review, we determine the fair value of these assets using market multiples and discounted cash flow modeling and compare it to the net book value of the acquired assets.

In 2015, we recorded an impairment charge of \$2.0 million on our long-lived assets related to the abandonment of certain accounting and information technology systems following our integration of Aventine.

We did not recognize any asset impairment charges in 2014 and 2013.

Valuation Allowance for Deferred Taxes

We account for income taxes under the asset and liability approach, where deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities, and are measured using enacted tax rates and laws that are expected to be in effect when the differences reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

We evaluate our deferred tax asset balance for realizability. To the extent we believe it is more likely than not that some portion or all of our deferred tax assets will not be realized, we will establish a valuation allowance against the deferred tax assets. Realization of our deferred tax assets is dependent upon future taxable income during the periods in which the associated temporary differences become deductible. We consider the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment. These changes, if any, may require possible material adjustments to these deferred tax assets, resulting in a reduction in net income or an increase in net loss in the period when such determinations are made.

Derivative Instruments

We evaluate our contracts to determine whether the contracts are derivative instruments. Management may elect to exempt certain forward contracts that meet the definition of a derivative from derivative accounting as normal purchases or normal sales. Normal purchases and normal sales are contracts that provide for the purchase or sale of something other than a financial instrument or derivative instrument that will be delivered in quantities expected to be used or sold over a reasonable period in the normal course of business. Contracts that meet the requirements of normal purchases or sales are documented as normal and exempted from the fair value accounting and reporting requirements of derivative accounting.

We enter into short-term cash, option and futures contracts as a means of securing purchases of corn, natural gas and sales of ethanol and managing exposure to changes in commodity prices. All of our exchange-traded derivatives are designated as non-hedge derivatives for accounting purposes, with changes in fair value recognized in net income. Although the contracts are economic hedges of specified risks, they are not designated as and accounted for as hedging instruments.

Realized and unrealized gains and losses related to exchange-traded derivative contracts are included as a component of cost of goods sold in the accompanying financial statements. The fair values of contracts entered through commodity exchanges are presented on the accompanying balance sheet as derivative instruments. The selection of normal purchase or sales contracts, and use of hedge accounting, are accounting policies that can change the timing of recognition of gains and losses in the statement of operations.

Accounting for Business Combinations

Determining the fair value of assets acquired and liabilities assumed in a business combination is considered a critical accounting estimate because the allocation of the purchase price to assets acquired and liabilities assumed based upon fair values requires significant management judgment and the use of subjective measurements. Variability in industry conditions and changes in assumptions or subjective measurements used to allocate fair value are reasonably possible and may have a material impact on our financial position, liquidity or results of operations.

Allowance for Doubtful Accounts

We sell ethanol primarily to gasoline refining and distribution companies, sell corn oil to poultry and biodiesel customers and sell other co-products to dairy operators and animal feed distributors. We had significant concentrations of credit risk from sales of our ethanol as of December 31, 2015 and 2014, as described in Note 1 to our consolidated financial statements included elsewhere in this report. However, historically, those ethanol customers have had good credit ratings and we have collected the amounts billed to those customers. Receivables from customers are generally unsecured. We continuously monitor our customer account balances and actively pursue collections on past due balances.

We maintain an allowance for doubtful accounts for balances that appear to have specific collection issues. Our collection process is based on the age of the invoice and requires attempted contacts with the customer at specified intervals. If after a specified number of days, we have been unsuccessful in our collection efforts, we consider recording a bad debt allowance for the balance in question. We would eventually write-off accounts included in our allowance when we have determined that collection is not likely. The factors considered in reaching this determination are the apparent financial condition of the customer, and our success in contacting and negotiating with the customer.

We recognized a bad debt recovery of \$0.3 million and less than \$0.1 million, and a bad debt expense of \$0.2 million, for the years ended December 31, 2015, 2014 and 2013, respectively.

Impact of New Accounting Pronouncements

See “Note 1 – Organization and Significant Accounting Policies – Recent Accounting Pronouncements” of the Notes to Consolidated Financial Statements commencing on page F-12 of this report.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are exposed to various market risks, including changes in commodity prices and interest rates as discussed below. Market risk is the potential loss arising from adverse changes in market rates and prices. In the ordinary course of business, we may enter into various types of transactions involving financial instruments to manage and reduce the impact of changes in commodity prices and interest rates. We do not expect to have any exposure to foreign currency risk as we conduct all of our transactions in U.S. dollars.

Commodity Risk

We produce ethanol and ethanol co-products. Our business is sensitive to changes in the prices of each of ethanol and corn. In the ordinary course of business, we may enter into various types of transactions involving financial instruments to manage and reduce the impact of changes in ethanol and corn prices. We do not enter into derivatives or other financial instruments for trading or speculative purposes.

We are subject to market risk with respect to ethanol pricing. Ethanol prices are sensitive to global and domestic ethanol supply; crude-oil supply and demand; crude-oil refining capacity; carbon intensity; government regulation; and consumer demand for alternative fuels. Our ethanol sales are priced using contracts that are either based on a fixed price or an indexed price tied to a specific market, such as the CBOT or the Oil Price Information Service. Under these fixed-priced arrangements, we are exposed to risk of a decrease in the market price of ethanol between the time the price is fixed and the time the ethanol is sold.

We satisfy our physical corn needs, the principal raw material used to produce ethanol and ethanol co-products, based on supply-guaranteed contracts with our vendors. Generally, we determine the purchase price of our corn at the time we begin to grind that day's needs. Sometimes we may also enter into contracts with our vendors to fix a portion of the purchase price. As such, we are also subject to market risk with respect to the price of corn. The price of corn is subject to wide fluctuations due to unpredictable factors such as weather conditions, farmer planting decisions, governmental policies with respect to agriculture and international trade and global supply and demand. Under the fixed price arrangements, we assume the risk of a decrease in the market price of corn between the time the price is fixed and the time the corn is utilized.

Ethanol co-products are sensitive to various demand factors such as numbers of livestock on feed, prices for feed alternatives and supply factors, primarily production of ethanol co-products by ethanol plants and other sources.

As noted above, we may attempt to reduce the market risk associated with fluctuations in the price of ethanol or corn by employing a variety of risk management and hedging strategies. Strategies include the use of derivative financial instruments such as futures and options executed on the CBOT and/or the New York Mercantile Exchange, as well as the daily management of physical corn.

These derivatives are not designated for special hedge accounting treatment, and as such, the changes in the fair values of these contracts are recorded on the balance sheet and recognized immediately in cost of goods sold. We recognized losses of \$0.3 million, \$1.1 million and \$1.9 million related to settled non-designated hedges as the change in the fair values of these contracts for the years ended December 31, 2015, 2014 and 2013, respectively.

At December 31, 2015, we prepared a sensitivity analysis to estimate our exposure to ethanol and corn. Market risk related to these factors was estimated as the potential change in pre-tax income resulting from a hypothetical 10% adverse change in the prices of our expected ethanol and corn volumes. The results of this analysis as of December 31, 2015, which may differ materially from actual results, are as follows (in millions):

Commodity	Year Ending December 31, 2015 Volume	Unit of Measure	Approximate Adverse Change to Pre-Tax Income
Ethanol	701.5	Gallons	\$ 54.0
Corn	114.0	Bushels	\$ 48.9

Interest Rate Risk

We are exposed to market risk from changes in interest rates. Exposure to interest rate risk results primarily from our indebtedness that bears interest at variable rates. At December 31, 2015, \$78.0 million of our long-term debt was variable-rate in nature. Based on a 100 basis point (1.00%) increase in the interest rate on our long-term debt, our pre-tax income for the year ended December 31, 2015 would be negatively impacted by approximately \$0.8 million.

Item 8. Financial Statements and Supplementary Data.

Reference is made to the financial statements, which begin at page F-1 of this report.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

We conducted an evaluation under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. The term “disclosure controls and procedures,” as defined in Rules 13a-15(e) and 15d-15(e) under the Securities and Exchange Act of 1934, as amended, or Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by the company in the reports it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the Securities and Exchange Commission’s rules and forms. Disclosure controls and procedures also include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company’s management, including its principal executive and principal financial officers, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded as of December 31, 2015 that our disclosure controls and procedures were effective at a reasonable assurance level.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that:

- (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets;
- (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and
- (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

A material weakness is defined by the Public Company Accounting Oversight Board's Audit Standards AS 2201 as being a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the company's annual or interim financial statements will not be prevented or detected on a timely basis by the company's internal controls.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation under the framework set forth in *Internal Control — Integrated Framework (2013)*, our management concluded that our internal control over financial reporting was effective as of December 31, 2015.

We completed our acquisition of Aventine on July 1, 2015. As permitted pursuant to the Securities and Exchange Commission's guidance, management excluded Aventine's business from its assessment of the effectiveness of our internal control over financial reporting as of December 31, 2015. Aventine represented approximately 53% of our total assets as of December 31, 2015 and Aventine's business generated approximately 25% of our net sales for the year ended December 31, 2015.

RSM US LLP, an independent registered public accounting firm, has issued an attestation report on our internal control over financial reporting as of December 31, 2015. That report is included in Part IV of this report.

Inherent Limitations on the Effectiveness of Controls

Management does not expect that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control systems are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in a cost-effective control system, no evaluation of internal control over financial reporting can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been or will be detected.

These inherent limitations include the realities that judgments in decision-making can be faulty and that breakdowns can occur because of a simple error or mistake. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

Changes in Internal Control over Financial Reporting

There has been no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the most recently completed fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

The information under the captions “Information about our Board of Directors, Board Committees and Related Matters” and “Section 16(a) Beneficial Ownership Reporting Compliance,” appearing in the Proxy Statement, is hereby incorporated by reference.

Item 11. Executive Compensation.

The information under the caption “Executive Compensation and Related Information,” appearing in the Proxy Statement, is hereby incorporated by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

The information under the captions “Security Ownership of Certain Beneficial Owners and Management” and “Equity Compensation Plan Information,” appearing in the Proxy Statement, is hereby incorporated by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

The information under the captions “Certain Relationships and Related Transactions” and “Information about our Board of Directors, Board Committees and Related Matters—Director Independence” appearing in the Proxy Statement, is hereby incorporated by reference.

Item 14. Principal Accounting Fees and Services.

The information under the caption “Audit Matters—Principal Accountant Fees and Services,” appearing in the Proxy Statement, is hereby incorporated by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a)(1) Financial Statements

Reference is made to the financial statements listed on and attached following the Index to Consolidated Financial Statements contained on page F-1 of this report.

(a)(2) Financial Statement Schedules

None.

(a)(3) Exhibits

Reference is made to the exhibits listed on the Index to Exhibits.

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Pacific Ethanol, Inc.

We have audited the accompanying consolidated balance sheet of Pacific Ethanol, Inc. and subsidiaries as of December 31, 2015, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for the year then ended. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Pacific Ethanol, Inc. and subsidiaries as of December 31, 2015, and the results of their operations and their cash flows for the year then ended, in conformity with U.S. generally accepted accounting principles.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Pacific Ethanol, Inc.'s and subsidiaries' internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013, and our report dated March 15, 2016 expressed an unqualified opinion on the effectiveness of Pacific Ethanol, Inc.'s internal control over financial reporting.

/s/ RSM US LLP

Sioux Falls, South Dakota
March 15, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Pacific Ethanol, Inc.

We have audited Pacific Ethanol, Inc.'s internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. Pacific Ethanol, Inc.'s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Pacific Ethanol Central, LLC (previously known as Aventine Renewable Energy Holdings, Inc.) from its assessment of internal control over financial reporting as of December 31, 2015, because it was acquired by the Company in a purchase business combination in the third quarter of 2015. We have also excluded Pacific Ethanol Central, LLC from our audit of internal control over financial reporting. Pacific Ethanol Central, LLC is a wholly owned subsidiary whose total assets and net sales represent approximately 53% and 25%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2015.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (c) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, Pacific Ethanol, Inc. maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Pacific Ethanol, Inc. and subsidiaries as of December 31, 2015, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for the year then ended, and our report dated March 15, 2016 expressed an unqualified opinion.

/s/ RSM US LLP

Sioux Falls, South Dakota
March 15, 2016

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
Pacific Ethanol, Inc.

We have audited the accompanying consolidated balance sheet of Pacific Ethanol, Inc. and subsidiaries as of December 31, 2014, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the two years ended December 31, 2014 and 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Pacific Ethanol, Inc. and subsidiaries as of December 31, 2014 and 2013, and the results of their operations and their cash flows for each of the two years ended December 31, 2014 and 2013, in conformity with U.S. generally accepted accounting principles.

/s/ Hein & Associates LLP

Irvine, California

March 16, 2015, except for the 2014 and 2013 information in Note 5 as to which the date is March 15, 2016

PACIFIC ETHANOL, INC.
CONSOLIDATED BALANCE SHEETS
(in thousands, except shares and par value)

<u>ASSETS</u>	December 31,	
	2015	2014
Current Assets:		
Cash and cash equivalents	\$ 52,712	\$ 62,084
Accounts receivable, net of allowance for doubtful accounts of \$25 and \$6, respectively	61,346	34,612
Inventories	60,820	18,550
Prepaid inventory	5,973	11,595
Income tax receivables	10,654	8,121
Other current assets	6,437	2,983
Total current assets	197,942	137,945
Property and equipment, net	464,960	155,302
Other Assets:		
Intangible assets, net	2,678	2,786
Other assets	9,563	1,863
Total other assets	12,241	4,649
Total Assets	\$ 675,143	\$ 297,896

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
CONSOLIDATED BALANCE SHEETS (CONTINUED)
(in thousands, except shares and par value)

<u>LIABILITIES AND STOCKHOLDERS' EQUITY</u>	December 31,	
	2015	2014
Current Liabilities:		
Accounts payable – trade	\$ 30,520	\$ 13,122
Accrued liabilities	10,072	6,203
Current portion – capital leases	4,248	4,077
Current portion – long-term debt	17,003	–
Accrued PE Op Co. purchase	3,828	–
Other current liabilities	7,238	2,045
Total current liabilities	72,909	25,447
Long-term debt, net of current portion	204,324	34,533
Capital leases, net of current portion	4,183	2,055
Warrant liabilities at fair value	273	1,986
Deferred tax liabilities	1,174	15,434
Other liabilities	20,736	459
Total Liabilities	303,599	79,914
Commitments and contingencies (Notes 1, 8, 9 and 15)		
Stockholders' Equity:		
Preferred stock, \$0.001 par value; 10,000,000 shares authorized:		
Series A: 1,684,375 shares authorized; no shares issued and outstanding as of December 31, 2015 and 2014	–	–
Series B: 1,580,790 shares authorized; 926,942 shares issued and outstanding as of December 31, 2015 and 2014; liquidation preference of \$18,075 as of December 31, 2015	1	1
Common stock, \$0.001 par value; 300,000,000 shares authorized; 38,974,972 and 24,499,534 shares issued and outstanding as of December 31, 2015 and 2014, respectively	39	25
Non-voting common stock, \$0.001 par value; 3,553,000 shares authorized; 3,540,132 and no shares issued and outstanding as of December 31, 2015 and 2014, respectively	4	–
Additional paid-in capital	902,843	725,813
Accumulated other comprehensive income	1,040	–
Accumulated deficit	(532,383)	(512,332)
Total Pacific Ethanol, Inc. stockholders' equity	371,544	213,507
Noncontrolling interests	–	4,475
Total stockholders' equity	371,544	217,982
Total Liabilities and Stockholders' Equity	\$ 675,143	\$ 297,896

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,		
	2015	2014	2013
Net sales	\$ 1,191,176	\$ 1,107,412	\$ 908,437
Cost of goods sold	1,183,766	998,927	875,507
Gross profit	7,410	108,485	32,930
Selling, general and administrative expenses	23,412	17,108	14,021
Asset impairments	1,970	-	-
Income (loss) from operations	(17,972)	91,377	18,909
Fair value adjustments and warrant inducements	1,641	(37,532)	(1,013)
Interest expense, net	(12,594)	(9,438)	(15,671)
Loss on extinguishments of debt	-	(2,363)	(3,035)
Other income (expense), net	18	(905)	(352)
Income (loss) before provision for income taxes	(28,907)	41,139	(1,162)
(Benefit) provision for income taxes	(10,034)	15,137	-
Consolidated net income (loss)	(18,873)	26,002	(1,162)
Net (income) loss attributed to noncontrolling interests	87	(4,713)	381
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ (18,786)	\$ 21,289	\$ (781)
Preferred stock dividends	\$ (1,265)	\$ (1,265)	\$ (1,265)
Income allocated to participating securities	\$ -	\$ (585)	\$ -
Income (loss) available to common stockholders	\$ (20,051)	\$ 19,439	\$ (2,046)
Income (loss) per share, basic	\$ (0.60)	\$ 0.93	\$ (0.17)
Income (loss) per share, diluted	\$ (0.60)	\$ 0.86	\$ (0.17)
Weighted-average shares outstanding, basic	33,173	20,810	12,264
Weighted-average shares outstanding, diluted	33,173	22,669	12,264

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)

	Years Ended December 31,		
	2015	2014	2013
Consolidated net income (loss)	\$ (18,873)	\$ 26,002	\$ (1,162)
Net (income) loss attributed to noncontrolling interests	87	(4,713)	381
Net income (loss) attributed to Pacific Ethanol, Inc.	(18,786)	21,289	(781)
Other comprehensive income – net gain arising during the period on defined benefit pension plans	1,040	–	–
Comprehensive income (loss) attributed to Pacific Ethanol, Inc.	\$ (17,746)	\$ 21,289	\$ (781)

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

	Preferred Stock		Common Stock		Additional	Accumulated	Accum. Other	Non-	Total
	Shares	Amount	Shares	Amount	Paid-In Capital	Deficit	Comprehensive Income	Controlling Interests	
Balances, January 1, 2013	<u>927</u>	<u>\$ 1</u>	<u>9,789</u>	<u>\$ 10</u>	<u>\$ 582,861</u>	<u>\$ (530,310)</u>	<u>\$ –</u>	<u>\$ 20,345</u>	<u>\$ 72,907</u>
Stock-based compensation expense – restricted stock and options to employees and directors, net of cancellations	–	–	600	1	1,696	–	–	–	1,697
Shares issued on convertible notes	–	–	4,446	4	18,551	–	–	–	18,555
Shares issued on senior notes	–	–	500	–	2,000	–	–	–	2,000
Warrant exercises	–	–	280	–	2,317	–	–	–	2,317
Shares issued as payment of prior unpaid Series B preferred dividends	–	–	511	1	2,192	–	–	–	2,193
Purchases of interests in PE Op Co.	–	–	–	–	11,940	–	–	(14,281)	(2,341)
Preferred stock dividends	–	–	–	–	–	(1,265)	–	–	(1,265)
Net loss	–	–	–	–	–	(781)	–	(381)	(1,162)
Balances, December 31, 2013	<u>927</u>	<u>\$ 1</u>	<u>16,126</u>	<u>\$ 16</u>	<u>\$ 621,557</u>	<u>\$ (532,356)</u>	<u>\$ –</u>	<u>\$ 5,683</u>	<u>\$ 94,901</u>
Stock-based compensation expense – restricted stock issued to employees and directors, net of cancellations and tax	–	–	90	–	1,890	–	–	–	1,890
Issuance of common stock	–	–	1,750	2	26,071	–	–	–	26,073
Warrant exercises	–	–	6,413	6	85,156	–	–	–	85,162
Shares issued as payment of prior unpaid Series B preferred dividends	–	–	120	1	1,462	–	–	–	1,463
Purchases of interests in PE Op Co.	–	–	–	–	(79)	–	–	(5,921)	(6,000)
Tax impact of purchases of interests in PE Op Co.	–	–	–	–	(10,244)	–	–	–	(10,244)
Preferred stock dividends	–	–	–	–	–	(1,265)	–	–	(1,265)
Net income	–	–	–	–	–	21,289	–	4,713	26,002
Balances, December 31, 2014	<u>927</u>	<u>\$ 1</u>	<u>24,499</u>	<u>\$ 25</u>	<u>\$ 725,813</u>	<u>\$ (512,332)</u>	<u>\$ –</u>	<u>\$ 4,475</u>	<u>\$ 217,982</u>
Stock-based compensation expense – restricted stock and options to employees and directors, net of cancellations and tax	–	–	216	–	1,475	–	–	–	1,475
Warrant exercises	–	–	42	–	440	–	–	–	440
Shares issued in Aventine acquisition	–	–	17,758	18	174,555	–	–	–	174,573
Pension plan adjustment	–	–	–	–	–	–	1,040	–	1,040
Purchases of interests in PE Op Co.	–	–	–	–	560	–	–	(4,388)	(3,828)
Preferred stock dividends	–	–	–	–	–	(1,265)	–	–	(1,265)
Net loss	–	–	–	–	–	(18,786)	–	(87)	(18,873)
Balances, December 31, 2015	<u>927</u>	<u>\$ 1</u>	<u>42,515</u>	<u>\$ 43</u>	<u>\$ 902,843</u>	<u>\$ (532,383)</u>	<u>\$ 1,040</u>	<u>\$ –</u>	<u>\$ 371,544</u>

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For the Years Ended December 31,		
	2015	2014	2013
Operating Activities:			
Consolidated net income (loss)	\$ (18,873)	\$ 26,002	\$ (1,162)
Adjustments to reconcile consolidated net income (loss) to cash provided by (used in) operating activities:			
Depreciation and amortization of intangibles	23,632	13,186	12,136
Fair value adjustments	(1,641)	35,260	227
Loss on extinguishments of debt	–	2,363	3,035
Asset impairments	1,970	–	–
Deferred income taxes	(2,023)	5,129	–
Inventory valuation	509	970	8
Change in fair value on commodity derivative instruments	542	808	1,821
Amortization of deferred financing costs	272	1,217	2,009
Amortization of debt discounts	716	1,815	1,272
Noncash compensation	2,019	1,838	1,724
Bad debt expense (recovery)	(354)	(42)	169
Loss on disposals of assets	–	439	–
Interest expense added to plant owners' debt	–	–	4,745
Interest on convertible debt paid with stock	–	–	111
Changes in operating assets and liabilities, net of effects from acquisition of Aventine:			
Accounts receivable	(15,950)	726	(9,414)
Inventories	(13,296)	3,866	(2,150)
Prepaid expenses and other assets	58	(7,818)	(2,340)
Prepaid inventory	5,622	720	(6,893)
Accounts payable and accrued expenses	(10,045)	1,853	8,889
Net cash provided by (used in) operating activities	<u>\$ (26,842)</u>	<u>\$ 88,332</u>	<u>\$ 14,187</u>
Investing Activities:			
Additions to property and equipment	\$ (20,507)	\$ (13,259)	\$ (3,993)
Net cash from acquisition of Aventine	18,756	–	–
Purchase of cash collateralized letters of credit	(4,574)	–	–
Purchases of PE Op Co. ownership interests	–	(6,000)	(2,340)
Net cash used in investing activities	<u>\$ (6,325)</u>	<u>\$ (19,259)</u>	<u>\$ (6,333)</u>

PACIFIC ETHANOL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	For the Years Ended December 31,		
	2015	2014	2013
Financing Activities:			
Net proceeds from common stock and warrants	\$ —	\$ 26,073	\$ —
Proceeds from warrant exercises	368	43,676	2,064
Proceeds from senior notes and warrants	—	—	22,192
Proceeds from convertible notes and warrants	—	—	14,000
Proceeds from plant borrowings	—	—	7,000
Net proceeds (payments) on Kinerigy's line of credit	43,584	(1,512)	(669)
Payments on plant borrowings	(13,833)	(39,792)	(17,115)
Purchase of plant owners' debt	—	(17,038)	(27,088)
Payments on senior unsecured notes	—	(13,984)	(6,208)
Debt issuance costs	—	(438)	(1,560)
Payment on related party note	—	(750)	—
Preferred stock dividend payments	(1,265)	(3,459)	(1,265)
Payments on capital leases	(5,059)	(4,916)	(1,640)
Net cash provided by (used in) financing activities	<u>\$ 23,795</u>	<u>\$ (12,140)</u>	<u>\$ (10,289)</u>
Net increase (decrease) in cash and cash equivalents	(9,372)	56,933	(2,435)
Cash and cash equivalents at beginning of period	62,084	5,151	7,586
Cash and cash equivalents at end of period	<u>\$ 52,712</u>	<u>\$ 62,084</u>	<u>\$ 5,151</u>
Supplemental Information:			
Interest paid	<u>\$ 11,685</u>	<u>\$ 6,596</u>	<u>\$ 7,515</u>
Income taxes (received) paid	<u>\$ (5,710)</u>	<u>\$ 17,930</u>	<u>\$ —</u>
Noncash financing and investing activities:			
Preferred stock dividends paid in common stock	<u>\$ —</u>	<u>\$ 1,463</u>	<u>\$ 2,192</u>
Accrued payment for ownership positions of PE Op Co.	<u>\$ 3,828</u>	<u>\$ —</u>	<u>\$ —</u>
Capital leases added to plant and equipment	<u>\$ 1,864</u>	<u>\$ —</u>	<u>\$ 12,829</u>
Original discount on senior and convertible debt	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 8,558</u>
Purchase of sugar inventory with note	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 5,000</u>
Reclass of warrant liability to equity upon exercises	<u>\$ 72</u>	<u>\$ 41,486</u>	<u>\$ 260</u>
Reclass of noncontrolling interest to APIC upon acquisitions of ownership interests in PE Op Co.	<u>\$ 560</u>	<u>\$ (79)</u>	<u>\$ 11,940</u>
Debt extinguished with issuance of common stock	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 16,000</u>
Common stock issued in Aventine acquisition (see Note 2)	<u>\$ 174,573</u>	<u>\$ —</u>	<u>\$ —</u>

The accompanying notes are an integral part of these consolidated financial statements.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. ORGANIZATION AND SIGNIFICANT ACCOUNTING POLICIES.

Organization and Business – The consolidated financial statements include, for all periods presented, the accounts of Pacific Ethanol, Inc., a Delaware corporation (“Pacific Ethanol”), and its direct and indirect subsidiaries (collectively, the “Company”), including its wholly-owned subsidiaries, Kinergy Marketing LLC, an Oregon limited liability company (“Kinergy”), Pacific Ag. Products, LLC, a California limited liability company (“PAP”) and PE Op Co., a Delaware corporation (“PE Op Co.”). The Company had a 100% and 96% ownership interest in PE Op Co. as of December 31, 2015 and 2014, respectively.

The Company’s acquisition of Aventine Renewable Energy Holdings, Inc. (now, Pacific Ethanol Central, LLC, a Delaware limited liability company, “Aventine”) was consummated on July 1, 2015, and as a result, the Company’s consolidated financial statements include the results of Aventine only as of and for the six months ended December 31, 2015.

The Company is a leading producer and marketer of low-carbon renewable fuels in the United States. The Company’s four ethanol plants in the Western United States (together with their respective holding companies, the “Pacific Ethanol West Plants”) are located in close proximity to both feed and ethanol customers and thus enjoy unique advantages in efficiency, logistics and product pricing. These plants produce among the lowest-carbon ethanol produced in the United States due to low energy use in production.

With the addition of four Midwestern ethanol plants in July 2015 as a result of the Company’s acquisition of Aventine, the Company now has a combined ethanol production capacity of 515 million gallons per year, markets, on an annualized basis, over 800 million gallons of ethanol, and produces, on an annualized basis, over one million tons of co-products such as wet and dry distillers grains, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, distillers yeast and CO₂. The Company’s four ethanol plants in the Midwest (together with their respective holding companies, the “Pacific Ethanol Central Plants”) are located in the heart of the Corn Belt, benefit from low-cost and abundant feedstock production and allow for access to many additional domestic markets. In addition, the Company’s ability to load unit trains from these facilities in the Midwest allows for greater access to international markets.

As of December 31, 2015, all eight facilities were operating. On April 30, 2014, the Company’s previously idled facility in Madera, California commenced producing ethanol. As market conditions change, the Company may increase, decrease or idle production at one or more operational facilities or resume operations at any idled facility.

Basis of Presentation – The consolidated financial statements and related notes have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and include the accounts of the Company. All significant intercompany accounts and transactions have been eliminated in consolidation.

Segments – A segment is a component of an enterprise whose operating results are regularly reviewed by the enterprise’s chief operating decision maker to make decisions about resources to be allocated to the segment and assess its performance, and for which discrete financial information is available. The Company determines and discloses its segments in accordance with the Financial Accounting Standards Board’s (“FASB”) Accounting Standards Codification Section 280, *Segment Reporting* (“ASC 280”), which defines how to determine segments. The Company reports its financial and operating performance in two reportable segments: (1) ethanol production, which includes the production and sale of ethanol and co-products, with all eight of the Company’s production facilities aggregated, and (2) marketing and distribution, which includes marketing and merchant trading for Company-produced ethanol and co-products and third-party ethanol.

Cash and Cash Equivalents – The Company considers all highly-liquid investments with an original maturity of three months or less to be cash equivalents.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Accounts Receivable and Allowance for Doubtful Accounts – Trade accounts receivable are presented at face value, net of the allowance for doubtful accounts. The Company sells ethanol to gasoline refining and distribution companies, sells distillers grains and other feed co-products to dairy operators and animal feedlots and sells corn oil to poultry and biodiesel customers generally without requiring collateral. Due to a limited number of ethanol customers, the Company had significant concentrations of credit risk from sales of ethanol as of December 31, 2015 and 2014, as described below.

The Company maintains an allowance for doubtful accounts for balances that appear to have specific collection issues. The collection process is based on the age of the invoice and requires attempted contacts with the customer at specified intervals. If, after a specified number of days, the Company has been unsuccessful in its collection efforts, a bad debt allowance is recorded for the balance in question. Delinquent accounts receivable are charged against the allowance for doubtful accounts once uncollectibility has been determined. The factors considered in reaching this determination are the apparent financial condition of the customer and the Company's success in contacting and negotiating with the customer. If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of ability to make payments, additional allowances may be required.

Of the accounts receivable balance, approximately \$42,049,000 and \$28,427,000 at December 31, 2015 and 2014, respectively, were used as collateral under Kinergy's operating line of credit. The allowance for doubtful accounts was \$25,000 and \$6,000 as of December 31, 2015 and 2014, respectively. The Company recorded a bad debt recovery of \$354,000 and \$42,000, and a bad debt expense of \$169,000 for the years ended December 31, 2015, 2014 and 2013, respectively. The Company does not have any off-balance sheet credit exposure related to its customers.

Concentration Risks – Credit risk represents the accounting loss that would be recognized at the reporting date if counterparties failed completely to perform as contracted. Concentrations of credit risk, whether on- or off-balance sheet, that arise from financial instruments exist for groups of customers or counterparties when they have similar economic characteristics that would cause their ability to meet contractual obligations to be similarly affected by changes in economic or other conditions described below. Financial instruments that subject the Company to credit risk consist of cash balances maintained in excess of federal depository insurance limits and accounts receivable, which have no collateral or security. The Company has not experienced any significant losses in such accounts and believes that it is not exposed to any significant risk of loss of cash.

The Company sells fuel-grade ethanol to gasoline refining and distribution companies. The Company sold ethanol to customers representing 10% or more of the Company's total net sales, as follows.

	Years Ended December 31,		
	2015	2014	2013
Customer A	15%	20%	23%
Customer B	12%	20%	17%
Customer C	12%	11%	6%
Customer D	6%	8%	12%

The Company had accounts receivable due from these customers totaling \$21,358,000 and \$20,706,000, representing 35% and 60% of total accounts receivable, as of December 31, 2015 and 2014, respectively.

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The Company purchases fuel-grade ethanol for resale and corn, its largest cost component in producing ethanol, from its suppliers. The Company purchased ethanol and corn from suppliers representing 10% or more of the Company's total purchases for the purchase and production of ethanol, as follows:

	Years Ended December 31,		
	2015	2014	2013
Supplier A	19%	26%	37%
Supplier B	13%	12%	8%
Supplier C	9%	15%	14%

Approximately 29% of the Company's employees are covered by a collective bargaining agreement.

Inventories – Inventories consisted primarily of bulk ethanol, corn, co-products, Low-Carbon Fuel Standard ("LCFS") credits, beet sugar and unleaded fuel, and are valued at the lower-of-cost-or-net realizable value, with cost determined on a first-in, first-out basis. Inventory balances consisted of the following (in thousands):

	December 31,	
	2015	2014
Finished goods	\$ 31,153	\$ 10,143
LCFS credits	6,957	975
Raw materials	9,891	2,695
Work in progress	11,121	3,274
Other	1,698	1,463
Total	<u>\$ 60,820</u>	<u>\$ 18,550</u>

Property and Equipment – Property and equipment are stated at cost. Depreciation is computed using the straight-line method over the following estimated useful lives:

Buildings	40 years
Facilities and plant equipment	10 – 25 years
Other equipment, vehicles and furniture	5 – 10 years

The cost of normal maintenance and repairs is charged to operations as incurred. Significant capital expenditures that increase the life of an asset are capitalized and depreciated over the estimated remaining useful life of the asset. The cost of fixed assets sold, or otherwise disposed of, and the related accumulated depreciation or amortization are removed from the accounts, and any resulting gains or losses are reflected in current operations.

Intangible Assets – The Company amortizes intangible assets with definite lives using the straight-line method over their established lives, generally 2-10 years. Additionally, the Company tests these assets with established lives for impairment if conditions exist that indicate that carrying values may not be recoverable. Possible conditions leading to the unrecoverability of these assets include changes in market conditions, changes in future economic conditions or changes in technological feasibility that impact the Company's assessments of future operations. The Company assesses indefinite-lived intangible assets for impairment annually, or more frequently if circumstances indicate impairment may have occurred. If the carrying value of an indefinite-lived intangible asset exceeds its fair value, an impairment loss is recognized in an amount equal to that excess. If the Company determines that an impairment charge is needed, the charge will be recorded as asset impairment in the consolidated statements of operations.

Deferred Financing Costs – Deferred financing costs are costs incurred to obtain debt financing, including all related fees, and are amortized as interest expense over the term of the related financing using the straight-line method, which approximates the interest rate method. Amortization of deferred financing costs was \$272,000, \$779,000 and \$2,009,000 for the years ended December 31, 2015, 2014 and 2013, respectively. Unamortized deferred financing costs were approximately \$462,000 at December 31, 2015 and are recorded in other assets in the consolidated balance sheets.

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Derivative Instruments and Hedging Activities – Derivative transactions, which can include exchange-traded forward contracts and futures positions on the New York Mercantile Exchange or the Chicago Board of Trade, are recorded on the balance sheet as assets and liabilities based on the derivative's fair value. Changes in the fair value of derivative contracts are recognized currently in income unless specific hedge accounting criteria are met. If derivatives meet those criteria, and hedge accounting is elected, effective gains and losses are deferred in accumulated other comprehensive income (loss) and later recorded together with the hedged item in consolidated income (loss). For derivatives designated as a cash flow hedge, the Company formally documents the hedge and assesses the effectiveness with associated transactions. The Company has designated and documented contracts for the physical delivery of commodity products to and from counterparties as normal purchases and normal sales.

Revenue Recognition – The Company recognizes revenue when it is realized or realizable and earned. The Company considers revenue realized or realizable and earned when there is persuasive evidence of an arrangement, delivery has occurred, the sales price is fixed or determinable, and collection is reasonably assured. The Company derives revenue primarily from sales of ethanol and related co-products. The Company recognizes revenue when title transfers to its customers, which is generally upon the delivery of these products to a customer's designated location. These deliveries are made in accordance with sales commitments and related sales orders entered into either verbally or in writing with customers. The sales commitments and related sales orders provide quantities, pricing and conditions of sales. In this regard, the Company engages in three basic types of revenue generating transactions:

- *As a producer.* Sales as a producer consist of sales of the Company's inventory produced at its plants.
- *As a merchant.* Sales as a merchant consist of sales to customers through purchases from third-party suppliers in which the Company may or may not obtain physical control of the ethanol or co-products, in which shipments are directed from the Company's suppliers to its terminals or direct to its customers but for which the Company accepts the risk of loss in the transactions.
- *As an agent.* Sales as an agent consist of sales to customers through purchases from third-party suppliers in which the risks and rewards of inventory ownership remain with third-party suppliers and the Company receives a predetermined service fee under these transactions.

Revenue from sales of third-party ethanol and co-products is recorded net of costs when the Company is acting as an agent between a customer and a supplier and gross when the Company is a principal to the transaction. The Company recorded \$1,510,000, \$1,908,000 and \$1,928,000 in net sales when acting as an agent for the years ended December 31, 2015, 2014 and 2013, respectively. Several factors are considered to determine whether the Company is acting as an agent or principal, most notably whether the Company is the primary obligor to the customer and whether the Company has inventory risk and related risk of loss or whether the Company adds meaningful value to the supplier's product or service. Consideration is also given to whether the Company has latitude in establishing the sales price or has credit risk, or both. When the Company acts as an agent, it recognizes revenue on a net basis or recognizes its predetermined fees and any associated freight, based upon the amount of net revenues retained in excess of amounts paid to suppliers.

The Company records revenues based upon the gross amounts billed to its customers in transactions where the Company acts as a producer or a merchant and obtains title to ethanol and its co-products and therefore owns the product and any related, unmitigated inventory risk for the ethanol, regardless of whether the Company actually obtains physical control of the product.

Shipping and Handling Costs – Shipping and handling costs are classified as a component of cost of goods sold in the accompanying consolidated statements of operations.

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California Ethanol Producer Incentive Program – The Company participated in the California Ethanol Producer Incentive Program (“CEPIP”) through the Pacific Ethanol West Plants located in California since the program’s inception in 2010. The CEPIP was a program to provide funds to an eligible California facility—up to \$0.25 per gallon of production—when current production corn crush spreads, measured as the difference between specified ethanol and corn index prices, were less than prescribed levels determined by the California Energy Commission. As of December 31, 2014, the program is no longer funded. For any month in which a payment was made by the CEPIP, the Company would be required to reimburse the funds within the subsequent five years from each payment date, if the corn crush spread exceeded \$1.00 per gallon. In 2010 and 2011, the Company received an aggregate of \$2,000,000 in CEPIP funds. Since these funds were provided to subsidize low production costs and encourage eligible facilities to either continue production or start up production in low margin environments, the Company recorded the proceeds as a credit to cost of goods sold in the periods the funds were received. For the years ended December 31, 2014 and 2013, the Company recorded aggregate amounts of \$1,878,000 and \$122,000 as cost of goods sold, respectively, in respect of the Company’s repayments under the CEPIP to the California Energy Commission.

Stock-Based Compensation – The Company accounts for the cost of employee services received in exchange for the award of equity instruments based on the fair value of the award, determined on the date of grant. The expense is to be recognized over the period during which an employee is required to provide services in exchange for the award. The Company estimates forfeitures at the time of grant and makes revisions, if necessary, in the second quarter of each year if actual forfeitures differ from those estimates. Based on historical experience, the Company estimated future unvested forfeitures at 8% for the years ended December 31, 2015, 2014 and 2013. The Company recognizes stock-based compensation expense as a component of selling, general and administrative expenses in the consolidated statements of operations.

Impairment of Long-Lived Assets – The Company assesses the impairment of long-lived assets, including property and equipment, internally developed software and purchased intangibles subject to amortization, when events or changes in circumstances indicate that the fair value of assets could be less than their net book value. In such event, the Company assesses long-lived assets for impairment by first determining the forecasted, undiscounted cash flows the asset is expected to generate plus the net proceeds expected from the sale of the asset. If this amount is less than the carrying value of the asset, the Company will then determine the fair value of the asset. An impairment loss would be recognized when the fair value is less than the related asset’s net book value, and an impairment expense would be recorded in the amount of the difference. Forecasts of future cash flows are judgments based on the Company’s experience and knowledge of its operations and the industries in which it operates. These forecasts could be significantly affected by future changes in market conditions, the economic environment, including inflation, and purchasing decisions of the Company’s customers.

Provision for Income Taxes – Income taxes are accounted for under the asset and liability approach, where deferred tax assets and liabilities are determined based on differences between financial reporting and tax basis of assets and liabilities, and are measured using enacted tax rates and laws that are expected to be in effect when the differences reverse. Valuation allowances are established when necessary to reduce deferred tax assets to the amounts expected to be realized.

The Company accounts for uncertainty in income taxes using a two-step approach to recognizing and measuring uncertain tax positions. The first step is to evaluate the tax position for recognition by determining whether it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount which is more than 50% likely of being realized upon ultimate settlement. An uncertain tax position is considered effectively settled on completion of an examination by a taxing authority if certain other conditions are satisfied. Should the Company incur interest and penalties relating to tax uncertainties, such amounts would be classified as a component of interest expense, net and other income (expense), net, respectively. The Company adopted early the provisions of ASU 2015-17, whereby all deferred tax assets and liabilities are classified as noncurrent in the Company’s consolidated balance sheets.

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The Company files a consolidated federal income tax return. This return includes all entities 80% or more owned by the Company as well as the Company's pro-rata share of taxable income from pass-through entities in which the Company holds an ownership interest. State tax returns are filed on a consolidated, combined or separate basis depending on the applicable laws relating to the Company and its subsidiaries.

Income (Loss) Per Share – Basic income (loss) per share is computed on the basis of the weighted-average number of shares of common stock outstanding during the period. Preferred dividends are deducted from net income (loss) attributed to Pacific Ethanol, Inc. and are considered in the calculation of income (loss) available to common stockholders in computing basic income (loss) per share. Common stock equivalents to the preferred stock are considered participating securities and are also included in this calculation when dilutive. For the year ended December 31, 2014, the calculation has been revised from the calculation previously reported to reflect the participating securities.

The following tables compute basic and diluted earnings per share (in thousands, except per share data):

	Year Ended December 31, 2015		
	Loss Numerator	Shares Denominator	Per-Share Amount
Net loss attributed to Pacific Ethanol	\$ (18,786)		
Less: Preferred stock dividends	(1,265)		
Basic and Diluted loss per share:			
Loss available to common stockholders	<u>\$ (20,051)</u>	<u>33,173</u>	<u>\$ (0.60)</u>
	Year Ended December 31, 2014		
	Income Numerator	Shares Denominator	Per-Share Amount
Net income attributed to Pacific Ethanol	\$ 21,289		
Less: Preferred stock dividends	(1,265)		
Less: Allocated to participating securities	(585)		
Basic income per share:			
Income available to common stockholders	\$ 19,439	20,810	<u>\$ 0.93</u>
Add: Warrants	–	1,859	
Diluted income per share:			
Income available to common stockholders	<u>\$ 19,439</u>	<u>22,669</u>	<u>\$ 0.86</u>
	Year Ended December 31, 2013		
	Loss Numerator	Shares Denominator	Per-Share Amount
Net loss attributed to Pacific Ethanol	\$ (781)		
Less: Preferred stock dividends	(1,265)		
Basic and diluted loss per share:			
Loss available to common stockholders	<u>\$ (2,046)</u>	<u>12,264</u>	<u>\$ (0.17)</u>

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There were an aggregate of 817,000, 660,000 and 1,357,000 potentially dilutive shares from convertible securities outstanding as of December 31, 2015, 2014 and 2013, respectively. These convertible securities were not considered in calculating diluted income (loss) per common share for the years ended December 31, 2015, 2014 and 2013 as their effect would be anti-dilutive.

Financial Instruments – The carrying values of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities are reasonable estimates of their fair values because of the short maturity of these items. The Company recorded at fair value its warrants and conversion features of its convertible notes. The Company believes the carrying value of its long-term debt approximates fair value because the interest rates on these instruments are variable.

Employment-related Benefits – Employment-related benefits associated with pensions and postretirement health care are expensed based on actuarial analysis. The recognition of expense is affected by estimates made by management, such as discount rates used to value certain liabilities, investment rates of return on plan assets, increases in future wage amounts and future health care costs. Discount rates are determined based on a spot yield curve that includes bonds with maturities that match expected benefit payments under the plan.

Estimates and Assumptions – The preparation of the consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Significant estimates are required as part of determining the fair value of warrants and conversion features, allowance for doubtful accounts, net realizable value of inventory, estimated lives of property and equipment and intangibles, long-lived asset impairments, valuation allowances on deferred income taxes and the potential outcome of future tax consequences of events recognized in the Company's financial statements or tax returns, and the valuation of assets acquired and liabilities assumed as a result of business combinations. Actual results and outcomes may materially differ from management's estimates and assumptions.

Subsequent Events – Management evaluates, as of each reporting period, events or transactions that occur after the balance sheet date through the date that the financial statements are issued for either disclosure or adjustment to the consolidated financial results.

Reclassifications – Certain prior year amounts have been reclassified to conform to the current presentation. Such reclassification had no effect on the consolidated net income (loss) reported in the consolidated statements of operations.

Recent Accounting Pronouncements – In February 2016, the FASB issued new guidance on accounting for leases. Under the new guidance, lessees will be required to recognize the following for all leases (with the exception of short-term leases) at the commencement date: (1) a lease liability, which is a lessee's obligation to make lease payments arising from a lease, measured on a discounted cash flow basis; and (2) a "right of use" asset, which is an asset that represents the lessee's right to use the specified asset for the lease term. Under the new guidance, lessor accounting is largely unchanged, with some minor exceptions. Lessees will no longer be provided with a source of off-balance sheet financing for other than short-term leases. The standard is effective for public companies for annual reporting periods beginning after December 15, 2019, and for interim periods beginning after December 15, 2020. Early adoption is permitted. The Company has several operating leases that may be impacted by this guidance. The Company is currently evaluating the impact of the adoption of this accounting standard on its consolidated results of operations and financial condition.

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In November 2015, the FASB issued new guidance that requires deferred tax liabilities and assets to be classified as noncurrent in a classified balance sheet. The guidance is effective for public companies for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period. Early adoption is permitted. For the year ended December 31, 2015, the Company adopted the guidance.

In May 2014, the FASB issued new guidance on the recognition of revenue. The guidance states that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The standard was originally effective for annual reporting periods beginning after December 15, 2016, including interim periods within that reporting period, but has been further deferred one year. The Company's adoption begins with the first fiscal quarter of fiscal year 2018. The Company is currently evaluating the impact of the adoption of this accounting standard update on its consolidated results of operations and financial condition.

In April 2015, the FASB issued new guidance on presentation of debt issuance costs. Historically, entities have presented debt issuance costs as an asset. Under the new guidance, effective for fiscal years beginning after December 31, 2015, debt issuance costs will be reclassified as a deduction to the carrying amount of the related debt balance. The guidance does not change any of the Company's other debt recognition or disclosure. The Company will adopt the guidance beginning January 1, 2016.

In July 2015, the FASB issued new guidance on simplifying the measurement of inventory. Under the new guidance, entities are required to measure most inventory at the lower of cost and net realizable value, thereby simplifying the current guidance under which an entity must measure inventory at the lower of cost or market. This guidance is effective prospectively for fiscal years beginning after December 15, 2016. Early adoption is permitted. The Company has adopted the guidance with no material impact on its results of operations or financial condition.

In September 2015, the FASB issued new guidance on simplifying the accounting for measurement-period adjustments. Under the new guidance, an acquirer must recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The guidance also requires acquirers to present separately on the face of the statement of operations or disclose in the notes, the portion of the amount recorded in current-period earnings by line item that would have been recorded in previous reporting periods if the adjustment to the provisional amounts had been recognized as of the acquisition date. The guidance is effective for fiscal years beginning after December 31, 2015, applied prospectively. Early adoption is permitted. The Company will consider early adoption in future periods related to its current measurement period for its acquisition of Aventine.

2. PACIFIC ETHANOL CENTRAL PLANTS.

On December 30, 2014, the Company entered into a definitive merger agreement with Aventine, a Midwest ethanol producer, under which the Company agreed to acquire Aventine and, therefore indirectly, the Pacific Ethanol Central Plants, through a stock-for-stock merger. The acquisition closed on July 1, 2015 and the Company issued an aggregate of 17.8 million shares of common stock and non-voting common stock for 100% of the outstanding shares of common stock of Aventine. The common stock and non-voting common stock issued as consideration had an aggregate fair value of \$174.6 million, based on the closing market price of the Company's common stock on the acquisition date.

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The Company believes the Aventine acquisition is resulting in a number of synergies and strategic advantages. The Company believes the acquisition has spread commodity and basis price risks across diverse markets and products, assisting in its efforts to optimize margin management; improve its hedging opportunities with a greater correlation to the liquid physical and paper markets in Chicago; and increase its flexibility and alternatives in feedstock procurement for its Midwestern and Western production facilities. The acquisition also expands the Company's marketing reach into new markets and extends its mix of co-products. The Company believes the acquisition will enable it to have deeper market insight and engagement in major ethanol and feed markets outside the Western United States, thereby improving pricing opportunities; allows the Company to establish access to markets in 48 states for ethanol sales and access many markets with ethanol and co-product sales reaching domestic and international customers; and enable it to use its more diverse mix of co-products to generate strong co-product returns. In addition, the acquisition also increases the Company's combined annual ethanol production capacity to 515 million gallons per year and annualized ethanol marketing volume to over 800 million gallons, including Aventine's historical volumes.

The Company has recognized the following allocation of the purchase price at fair values. The Company has included in the following allocation its estimated fair values for certain operating lease agreements and open commitments. The fair-value determination of long-term debt is based on the interest rate environment at the acquisition date. The fair value allocation related to deferred taxes is provisional and incomplete as the Company is finalizing its review of deferred taxes. The Company expects to complete its review by mid-2016. Based on the current allocation, the Company has recorded an immaterial bargain purchase gain on the acquisition.

Based upon these fair value estimates, the purchase price consideration allocation is as follows (in thousands):

Cash and cash equivalents	\$	18,756
Accounts receivable		10,430
Inventory		29,483
Other current assets		8,304
Total current assets		<u>66,973</u>
Property and equipment		312,781
Net deferred tax assets		12,159
Other assets		750
Total assets acquired	<u>\$</u>	<u>392,663</u>
Accounts payable and accrued liabilities	\$	27,780
Long-term debt - revolvers		13,721
Long-term debt - term debt		142,744
Pension plan liabilities		8,518
Other non-current liabilities		25,327
Total liabilities	<u>\$</u>	<u>218,090</u>
Net assets acquired	<u>\$</u>	<u>174,573</u>

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The contractual amount due on the accounts receivable acquired was \$10.8 million, of which \$0.4 million is expected to be uncollectible. As discussed in Note 15, the Company recorded \$3.7 million, included in other noncurrent liabilities above, as a litigation contingency related to certain legal cases for amounts that were probable and estimable as of the acquisition date. Subsequent to the acquisition date, the Company paid approximately \$0.4 million of this amount.

The following table presents unaudited pro forma financial information assuming the acquisition occurred on January 1, 2014 (in thousands except per share data).

	Years Ended December 31,	
	2015	2014
Net sales – pro forma	\$ 1,484,676	\$ 1,695,440
Cost of goods sold – pro forma	\$ 1,469,512	\$ 1,528,387
Selling, general and administrative expenses – pro forma	\$ 34,735	\$ 47,796
Net income (loss) – pro forma	\$ (34,136)	\$ 12,596
Diluted net income (loss) per share – pro forma	\$ (0.81)	\$ 0.31
Diluted weighted-average shares – pro forma	42,053	40,428

The effects of the initial step-up of inventories and open contracts in the aggregate of \$8.7 million recorded during 2015 were excluded in the above amounts for 2015, and instead recorded for the year 2014, as if the acquisition had occurred on January 1, 2014. For the six months ended December 31, 2015, Aventine contributed \$299.0 million in net sales and \$16.3 million in pre-tax loss. For the years ended December 31, 2015 and 2014, the Company recorded approximately \$1.4 million and \$0.7 million, respectively, in costs associated with the Aventine acquisition. These costs are reflected in selling, general and administrative expenses on the Company's consolidated statements of operations, but were excluded from the amounts above.

3. PACIFIC ETHANOL WEST PLANTS.

Consolidation of PE Op Co. – The Company concluded that from PE Op Co.'s inception to the time the Company became a 91% owner, PE Op Co. was a variable interest entity ("VIE") because the other owners of PE Op Co., due to the Company's involvement through the contractual arrangements discussed below, at all times lacked the power to direct the activities that most significantly impacted PE Op Co.'s economic performance. However, since the Company's acquisition in December 2013 that brought its ownership interest in PE Op Co. to 91%, the Company has obtained and maintained sufficient control, both by way of agreements as well as based on structural control of PE Op Co., such that PE Op Co. is no longer considered a VIE, and as such the Company consolidates PE Op Co. under the voting rights model. On April 1, 2014, PE Op Co. was converted from a Delaware limited liability company to a Delaware C-corporation and changed its name from New PE Holdco LLC to PE Op Co.

In August 2014, the Company purchased an additional 5% of the ownership interests in PE Op Co. for \$6,000,000 in cash, bringing its total ownership interest to 96% as of December 31, 2014.

In May 2015, the Company purchased the remaining 4% ownership interest in PE Op Co. that it did not own, giving it 100% ownership of PE Op Co.

Because the Company has a controlling financial interest in PE Op Co., it did not record any gain or loss on these purchases, but instead reduced the amount of noncontrolling interest on the consolidated balance sheets by an aggregate of \$4,388,000, \$5,921,000 and \$14,281,000 and recorded the difference of \$560,000, \$79,000 and \$11,940,000 for the years ended December 31, 2015, 2014 and 2013, respectively, which represents the fair value of these purchases above the price paid by the Company, to additional paid-in capital on the consolidated balance sheets. Further, in 2014, the Company recorded a deferred tax liability related to its cumulative adjustments to additional paid-in capital of \$10,244,000.

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The Company's acquisition of its ownership interest in PE Op Co. does not impact the Company's rights or obligations under any of the agreements described below. Further, creditors of PE Op Co. or its subsidiaries do not have recourse to the Company. Since its acquisition, the Company has not provided any additional support to PE Op Co. beyond the terms of the agreements described below.

The Company, directly or through one of its subsidiaries, has entered into the management and marketing agreements described below.

4. INTERCOMPANY AGREEMENTS.

Affiliate Management Agreement – Pacific Ethanol, Inc. (the "Parent") entered into an Affiliate Management Agreement ("AMA") with its operating subsidiaries, namely Kinergy, PAP, the Pacific Ethanol West Plants and the Pacific Ethanol Central Plants, effective July 1, 2015, under which the Company agreed to provide operational and administrative and staff support services. These services generally include, but are not limited to, administering the subsidiaries' compliance with their credit agreements and performing billing, collection, record keeping and other administrative and ministerial tasks. The Parent agreed to supply all labor and personnel required to perform its services under the AMA, including the labor and personnel required to operate and maintain the production facilities and marketing activities. These services are billed at a predetermined amount per subsidiary each month plus out of pocket costs such as employee wages and benefits.

The AMA had an initial term of one year and automatic successive one year renewal periods. In addition to typical conditions for a party to terminate the agreement prior to its expiration, the Parent may terminate the AMA, and any subsidiary may terminate the AMA, at any time by providing at least 90 days prior notice of such termination.

The Parent recorded revenues of approximately \$8.1 million related to the AMA for the year ended December 31, 2015. These amounts have been eliminated upon consolidation. As the Parent was in the process of integrating the Pacific Ethanol Central Plants in the last half of 2015, no such fees were charged to the Pacific Ethanol Central Plants, but such fees commenced in January 2016.

Prior Plant Management Agreement – Prior July 1, 2015, the Parent entered into a Plant Management Agreement ("PMA") with the Pacific Ethanol West Plants under which the Parent agreed to operate and maintain the Pacific Ethanol West Plants. These services generally included, but were not limited to, administering the Plants' compliance with their credit agreements and performing billing, collection, record keeping and other administrative and ministerial tasks. The Parent agreed to supply all labor and personnel required to perform its services under the PMA, including the labor and personnel required to operate and maintain the production facilities.

The costs and expenses associated with the Parent's provision of services under the PMA were prefunded by the Pacific Ethanol West Plants under a preapproved budget. The Parent's obligation to provide services was limited to the extent there were sufficient funds advanced by the plants to cover the associated costs and expenses.

As compensation for providing the services under the PMA, the Parent was paid \$75,000 per month for each production facility that was operational and \$40,000 per month for each production facility that was idled. The Parent recorded revenues attributed to the PMA of approximately \$1.8 million, for the year ended December 31, 2015 and \$3.5 million for each of the years ended December 31, 2014 and 2013. These amounts have been eliminated upon consolidation.

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In addition to the monthly fee, the Parent was to be paid a performance bonus if certain profit metrics were met. During the year ended December 31, 2014, the Company earned \$2.8 million in performance bonuses. These amounts have been eliminated upon consolidation. No bonuses were paid in 2015 and 2013.

Ethanol Marketing Agreements – Kinery entered into separate ethanol marketing agreements with each of the Company's eight plants, which granted it the exclusive right to purchase, market and sell the ethanol produced at those facilities. Under the terms of the ethanol marketing agreements, within ten days after delivering ethanol to Kinery, an amount is paid to Kinery equal to (i) the estimated purchase price payable by the third-party purchaser of the ethanol, minus (ii) the estimated amount of transportation costs to be incurred, minus (iii) the estimated incentive fee payable to Kinery, which equals 1% of the aggregate third-party purchase price, provided that the marketing fee shall not be less than \$0.015 per gallon and not more than \$0.0225 per gallon. Each of the ethanol marketing agreements had an initial term of one year and successive one year renewal periods at the option of the individual plant.

Kinery recorded revenues of approximately \$5,262,000, \$3,986,000 and \$3,351,000 related to the ethanol marketing agreements for the years ended December 31, 2015, 2014 and 2013, respectively. These amounts have been eliminated upon consolidation.

Corn Procurement and Handling Agreements – PAP entered into separate corn procurement and handling agreements with each of the four Pacific Ethanol West Plants. Under the terms of the corn procurement and handling agreements, each facility appointed PAP as its exclusive agent to solicit, negotiate, enter into and administer, on its behalf, corn supply arrangements to procure the corn necessary to operate its facility. PAP also provides grain handling services including, but not limited to, receiving, unloading and conveying corn into the facility's storage and, in the case of whole corn delivered, processing and hammering the whole corn.

PAP is to receive a fee of \$0.045 per bushel of corn delivered to each facility as consideration for its procurement and handling services, payable monthly. Each corn procurement and handling agreement had an initial term of one year and successive one year renewal periods at the option of the individual plant.

PAP recorded revenues of approximately \$2,910,000, \$2,989,000 and \$2,423,000 related to the corn procurement and handling agreements for the years ended December 31, 2015, 2014 and 2013, respectively. These amounts have been eliminated upon consolidation.

Distillers Grains Marketing Agreements – PAP entered into separate distillers grains marketing agreements with each of the Company's eight plants, which grant PAP the exclusive right to market, purchase and sell the various co-products produced at each facility. Under the terms of the distillers grains marketing agreements, within ten days after a plant delivers co-products to PAP, the plant is paid an amount equal to (i) the estimated purchase price payable by the third-party purchaser of the co-products, minus (ii) the estimated amount of transportation costs to be incurred, minus (iii) the estimated amount of fees and taxes payable to governmental authorities in connection with the tonnage of the co-products produced or marketed, minus (iv) the estimated incentive fee payable to the Company, which equals (a) 5% of the aggregate third-party purchase price for wet corn gluten feed, wet distillers grains, corn condensed distillers solubles and distillers grains with solubles, or (b) 1% of the aggregate third-party purchase price for corn gluten meal, dry corn gluten feed, dry distillers grains, corn germ and corn oil. Each distillers grains marketing agreement had an initial term of one year and successive one year renewal periods at the option of the individual plant.

PAP recorded revenues of approximately \$4,438,000, \$4,788,000 and \$4,584,000 related to the distillers grain marketing agreements for the years ended December 31, 2015, 2014 and 2013, respectively. These amounts have been eliminated upon consolidation.

PACIFIC ETHANOL, INC.
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5. SEGMENTS.

The Company previously reported as a single segment, however, as a result of changes in the Company's business in 2015, after a reassessment, the Company changed the number of its operating and reportable segments as determined under ASC 280.

The Company reports its financial and operating performance in two segments: (1) ethanol production, which includes the production and sale of ethanol and co-products, with all eight of the Company's production facilities aggregated, and (2) marketing and distribution, which includes marketing and merchant trading for Company-produced ethanol and co-products and third-party ethanol.

Income before provision for income taxes includes management fees charged by the Parent to the segment. The production segment incurred \$6.0 million, \$8.8 million and \$5.6 million in management fees for the years ended December 31, 2015, 2014 and 2013, respectively. The marketing and distribution segment incurred \$3.9 million, \$3.9 million and \$3.6 million in management fees for the years ended December 31, 2015, 2014 and 2013, respectively. Corporate activities include selling, general and administrative expenses, consisting primarily of corporate employee compensation, professional fees and overhead costs not directly related to a specific operating segment.

During the normal course of business, the segments do business with each other. The preponderance of this activity occurs when the Company's marketing segment markets ethanol produced by the production segment for a marketing fee, as discussed in Note 4. These intersegment activities are considered arms'-length transactions. Consequently, although these transactions impact segment performance, they do not impact the Company's consolidated results since all revenues and corresponding costs are eliminated in consolidation.

Capital expenditures are substantially all incurred at the Company's production segment.

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The following tables set forth certain financial data for the Company's operating segments (in thousands):

	Years Ended December 31,		
	2015	2014	2013
<u>Net Sales:</u>			
Ethanol production:			
Net sales from external customers	\$ 710,201	\$ 562,388	\$ 507,162
Intersegment net sales	—	—	—
Total segment revenues	<u>710,201</u>	<u>562,388</u>	<u>507,162</u>
Marketing and distribution:			
Net sales from external customers	480,975	545,024	401,275
Intersegment net sales	5,262	3,986	3,351
Total segment net sales	<u>486,237</u>	<u>549,010</u>	<u>404,626</u>
Net sales including intersegment activity	1,196,438	1,111,398	911,788
Intersegment eliminations	(5,262)	(3,986)	(3,351)
Net sales as reported	<u>\$ 1,191,176</u>	<u>\$ 1,107,412</u>	<u>\$ 908,437</u>
<u>Cost of goods sold:</u>			
Ethanol production	\$ 719,833	\$ 473,598	\$ 492,186
Marketing and distribution	476,410	537,010	393,366
Intersegment eliminations	(12,477)	(11,681)	(10,045)
	<u>\$ 1,183,766</u>	<u>\$ 998,927</u>	<u>\$ 875,507</u>
<u>Income (loss) before provision for income taxes:</u>			
Ethanol production	\$ (32,723)	\$ 72,278	\$ 3,776
Marketing and distribution	3,200	6,068	5,217
Corporate activities	616	(37,207)	(10,155)
	<u>\$ (28,907)</u>	<u>\$ 41,139</u>	<u>\$ (1,162)</u>
<u>Depreciation and amortization:</u>			
Ethanol production	\$ 23,091	\$ 12,509	\$ 11,533
Marketing and distribution	151	551	499
Corporate activities	390	126	104
	<u>\$ 23,632</u>	<u>\$ 13,186</u>	<u>\$ 12,136</u>
<u>Interest expense:</u>			
Ethanol production	\$ (11,969)	\$ (7,048)	\$ (11,248)
Marketing and distribution	(625)	(566)	(527)
Corporate activities	—	(1,824)	(3,896)
	<u>\$ (12,594)</u>	<u>\$ (9,438)</u>	<u>\$ (15,671)</u>

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table sets forth the Company's total assets by operating segment (in thousands):

	Years Ended December 31,	
	2015	2014
<i>Total assets:</i>		
Ethanol production	\$ 536,013	\$ 190,630
Marketing and distribution	107,532	70,068
Corporate assets	31,598	37,198
	<u>\$ 675,143</u>	<u>\$ 297,896</u>

6. PROPERTY AND EQUIPMENT.

Property and equipment consisted of the following (in thousands):

	December 31,	
	2015	2014
Facilities and plant equipment	\$ 501,800	\$ 190,714
Land	7,541	2,570
Other equipment, vehicles and furniture	9,084	7,641
Construction in progress	23,579	8,720
	<u>542,004</u>	<u>209,645</u>
Accumulated depreciation	(77,044)	(54,343)
	<u>\$ 464,960</u>	<u>\$ 155,302</u>

Depreciation expense, including idled facilities, was \$23,524,000, \$12,712,000 and \$11,662,000 for the years ended December 31, 2015, 2014 and 2013, respectively. One of the Pacific Ethanol West Plants was idled for four months in 2014 and for all of 2013. Depreciation on the Company's idled assets was an aggregate of \$699,000 and \$2,108,000 for the years ended December 31, 2014 and 2013, respectively.

Included in plant and equipment is \$9,971,000 and \$3,467,000 at December 31, 2015 and 2014, respectively, attributable to capital leases. Depreciation expense related to these capital leases was \$340,000, \$231,000 and none for the years ended December 31, 2015, 2014 and 2013, respectively. For the year ended December 31, 2015, the Company recorded an impairment charge of \$1,970,000 related to the abandonment of certain accounting and information technology systems following its integration of Aventine.

7. INTANGIBLE ASSETS.

Intangible assets consisted of the following (in thousands):

	Useful Life (Years)	December 31, 2015			December 31, 2014		
		Gross	Accumulated Amortization	Net Book Value	Gross	Accumulated Amortization	Net Book Value
Non-Amortizing:							
Kinergy tradename		\$ 2,678	\$ -	\$ 2,678	\$ 2,678	\$ -	\$ 2,678
Amortizing:							
Customer relationships	10	4,741	(4,741)	-	4,741	(4,633)	108
Total intangible assets, net		<u>\$ 7,419</u>	<u>\$ (4,741)</u>	<u>\$ 2,678</u>	<u>\$ 7,419</u>	<u>\$ (4,633)</u>	<u>\$ 2,786</u>

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Kinergy Tradename – The Company recorded a tradename valued at \$2,678,000 in 2006 as part of its acquisition of Kinergy. The Company determined that the Kinergy tradename has an indefinite life and therefore, rather than being amortized, will be tested annually for impairment. The Company did not record any impairment of the Kinergy tradename for the years ended December 31, 2015, 2014 and 2013.

Customer Relationships – The Company recorded customer relationships valued at \$4,741,000 as part of its acquisition of Kinergy. The Company has established a useful life of ten years for these customer relationships. Amortization expense associated with intangible assets totaled \$108,000, \$474,000 and \$474,000 for the years ended December 31, 2015, 2014 and 2013, respectively.

8. DERIVATIVES.

The business and activities of the Company expose it to a variety of market risks, including risks related to changes in commodity prices. The Company monitors and manages these financial exposures as an integral part of its risk management program. This program recognizes the unpredictability of financial markets and seeks to reduce the potentially adverse effects that market volatility could have on operating results.

Commodity Risk – Cash Flow Hedges – The Company uses derivative instruments to protect cash flows from fluctuations caused by volatility in commodity prices for periods of up to twelve months in order to protect gross profit margins from potentially adverse effects of market and price volatility on ethanol sale and purchase commitments where the prices are set at a future date and/or if the contracts specify a floating or index-based price for ethanol. In addition, the Company hedges anticipated sales of ethanol to minimize its exposure to the potentially adverse effects of price volatility. These derivatives may be designated and documented as cash flow hedges and effectiveness is evaluated by assessing the probability of the anticipated transactions and regressing commodity futures prices against the Company's purchase and sales prices. Ineffectiveness, which is defined as the degree to which the derivative does not offset the underlying exposure, is recognized immediately in cost of goods sold. For the years ended December 31, 2015, 2014 and 2013, the Company did not designate any of its derivatives as cash flow hedges.

Commodity Risk – Non-Designated Hedges – The Company uses derivative instruments to lock in prices for certain amounts of corn and ethanol by entering into exchange-traded forward contracts for those commodities. These derivatives are not designated for special hedge accounting treatment. The changes in fair value of these contracts are recorded on the balance sheet and recognized immediately in cost of goods sold. The Company recognized net losses of \$542,000, \$808,000 and \$1,821,000 as the change in the fair value of these contracts for the years ended December 31, 2015, 2014 and 2013, respectively.

Non Designated Derivative Instruments – The classification and amounts of the Company's derivatives not designated as hedging instruments are as follows (in thousands):

Type of Instrument	As of December 31, 2015			
	Assets		Liabilities	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Commodity contracts	Other current assets	\$ 2,081	Other current liabilities	\$ 1,848
		\$ 2,081		\$ 1,848

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2015

Type of Instrument	Assets		Liabilities	
	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Commodity contracts	Other current assets	\$ 1,586	Other current liabilities	\$ 1,149
		<u>\$ 1,586</u>		<u>\$ 1,149</u>

The classification and amounts of the Company's recognized gains (losses) for its derivatives not designated as hedging instruments are as follows (in thousands):

Type of Instrument	Statements of Operations Location	Realized Losses		
		For the Years Ended December 31,		
		2015	2014	2013
Commodity contracts	Cost of goods sold	\$ (338)	\$ (1,144)	\$ (1,901)
		<u>\$ (338)</u>	<u>\$ (1,144)</u>	<u>\$ (1,901)</u>

Type of Instrument	Statements of Operations Location	Unrealized (Losses) Gains		
		For the Years Ended December 31,		
		2015	2014	2013
Commodity contracts	Cost of goods sold	\$ (204)	\$ 336	\$ 80
		<u>\$ (204)</u>	<u>\$ 336</u>	<u>\$ 80</u>

9. DEBT.

Long-term borrowings are summarized as follows (in thousands):

	December 31, 2015	December 31, 2014
Kinergy operating line of credit	\$ 61,003	\$ 17,530
Term debt	162,622	17,003
	223,625	34,533
Less unamortized discount	(2,298)	-
Less short-term portion	(17,003)	-
Long-term debt	<u>\$ 204,324</u>	<u>\$ 34,533</u>

Kinergy Line of Credit – Kinergy has an operating line of credit for an aggregate amount of up to \$75,000,000 with an “accordion” feature to further increase the maximum credit under the credit facility to up to \$100,000,000 in minimum increments of \$5,000,000 each, upon Kinergy's request, but subject to the consent of the agent and the lenders in their sole discretion. The line of credit matures on December 31, 2020. The credit facility is based on Kinergy's eligible accounts receivable and inventory levels, subject to certain concentration reserves. The credit facility is subject to certain other sublimits, including inventory loan limits. Interest accrues under the line of credit at a rate equal to (i) the three-month London Interbank Offered Rate (“LIBOR”), plus (ii) a specified applicable margin ranging between 1.75% and 2.75%. The applicable margin was 1.75%, for a total rate of 2.375% at December 31, 2015. The credit facility's monthly unused line fee is an annual rate equal to 0.25% to 0.375% depending on the average daily principal balance during the immediately preceding month. Payments that may be made by Kinergy to the Company as reimbursement for management and other services provided by the Company to Kinergy are limited under the terms of the credit facility to \$1,100,000 per fiscal quarter.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The credit facility also includes the accounts receivable of PAP as additional collateral. Payments that may be made by PAP to Pacific Ethanol as reimbursement for management and other services provided by Payments that may be made by PAP to the Company as reimbursement for management and other services provided by the Company to PAP are limited under the terms of the credit facility to \$500,000 per fiscal quarter.

For each calendar month, Kinergety and PAP are collectively required to maintain a fixed-charge coverage ratio (calculated as a twelve-month rolling EBITDA divided by the sum of interest expense, capital expenditures, principal payments of indebtedness, indebtedness from capital leases and taxes paid during such twelve-month rolling period) of at least 2.0 and are prohibited from incurring certain additional indebtedness (other than specific intercompany indebtedness).

Kinergety and PAP's obligations under the credit facility are secured by a first-priority security interest in all of their assets in favor of the lender. Pacific Ethanol has guaranteed all of Kinergety's obligations under the line of credit. As of December 31, 2015, Kinergety had an available borrowing base under the credit facility of \$67,161,000.

Pacific Ethanol West Plants' Term Debt – The Pacific Ethanol West Plants' debt as of December 31, 2015 consisted of a \$32,487,000 tranche A-1 term loan and a \$26,279,000 tranche A-2 term loan, both of which have a maturity date in June 2016. Pacific Ethanol, Inc. holds a combined \$41,763,000 of these term loans, which are eliminated upon consolidation. As of December 31, 2015, the combined outstanding balance of these loans was \$17,003,000 on a consolidated basis (net of Pacific Ethanol, Inc. holdings).

The term debt requires monthly interest payments at a floating rate equal to the three-month LIBOR or the Prime Rate of interest, at the election of the Pacific Ethanol West Plants, plus 10.0%. At December 31, 2015, the interest rate was approximately 13.25%. Repayments of principal are based on available free cash flow of the Pacific Ethanol West Plants, until maturity, when all principal amounts are due.

On February 26, 2016, the Company retired the \$17,003,000 outstanding balance by purchasing the lender's position for cash at par without any prepayment penalty. This purchase increased the amount of the term loans held by Pacific Ethanol to a combined \$58,766,000. As a result, the Company has no continuing obligations to any third-party lender under the credit agreements associated with this term debt.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Senior Unsecured Notes – On January 11, 2013, under the terms of a securities purchase agreement dated December 19, 2012 among the Company and five accredited investors, the Company issued and sold to the investors in a private offering \$22,192,000 in aggregate principal amount of its senior unsecured notes (“January 2013 Notes”) and warrants to purchase an aggregate of 1,708,700 shares of the Company’s common stock (“January 2013 Financing Transaction”) for aggregate net proceeds of \$22,072,000. The warrants have an exercise price of \$6.32 per share and expire in January 2018. The January 2013 Notes had an original maturity date of March 30, 2016 and bore interest at a rate of 5% per annum, subject to adjustment. Payments due under the January 2013 Notes ranked senior to all other indebtedness of the Company and its subsidiaries, other than certain permitted senior indebtedness.

Upon closing of the January 2013 Financing Transaction, the Company recorded a debt discount of \$2,657,000 associated with the value of the warrants issued in connection with the financing. The debt discount will be amortized over the life of the January 2013 Notes to approximate a yield adjustment.

If at any time the Company were to receive net cash proceeds from an issuance of equity or equity-linked securities of the Company, interest received from any purchased and outstanding plant owners’ term debt, certain sales of assets or as a result of incurring certain indebtedness, then the Company would be obligated to prepay the January 2013 Notes using 100% of all such net cash proceeds, provided that any net proceeds received in connection with an equity-linked issuance must be used to either prepay the January 2013 Notes or purchase certain outstanding debt issued by the plant owners.

During 2014, the Company made principal cash payments on the January 2013 Notes in the aggregate amount of \$13,984,000, fully retiring the debt prior to maturity. During 2013, the Company made principal cash payments on the January 2013 Notes in the aggregate amount of \$6,208,000 and the Company issued 500,000 shares of its common stock as a \$2,000,000 principal payment, resulting in a loss of \$229,000 on extinguishment of debt.

Subordinated Convertible Notes – On March 28, 2013, the Company issued \$6,000,000 in aggregate principal amount of its Series A Subordinated Convertible Notes (“Series A Notes”), and warrants to purchase an aggregate of 1,839,600 shares of common stock for aggregate gross proceeds of \$6,000,000. On June 21, 2013, the Company issued \$8,000,000 in aggregate principal amount of its Series B Subordinated Convertible Notes (“Series B Notes”) for aggregate gross proceeds of \$8,000,000. The warrants had an exercise price of \$7.59 per share. Of the warrants issued in the transaction, warrants to purchase 788,400 shares of common stock expired in March 2015 and warrants to purchase 1,051,200 shares of common stock expired in June 2015. The net proceeds of these offerings of \$12,560,000 were used to (i) purchase \$6,665,000 of the plant owners’ debt maturing in June 2013, the maturity of which was also extended at the time from June 2013 to June 2016, and of which the Company immediately retired \$1,122,000; (ii) acquire an additional 5% ownership interest in PE Op Co.; and (iii) purchase and immediately retire an additional \$3,500,000 of the plant owners’ term debt.

Unless converted or redeemed earlier, the Series A and B Notes were to mature on March 28, 2014. The Series A and B Notes bore interest at 5% per annum, compounded monthly. All amounts due under the Series A and B Notes were convertible at any time, in whole or in part, at the option of the holders into shares of the Company’s common stock at a conversion price (“Fixed Conversion Price”), which was subject to adjustment as described below.

PACIFIC ETHANOL, INC.
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The Series A and B Notes were initially convertible into shares of the Company's common stock at the initial Fixed Conversion Price of \$15.00 per share. If the Company sold or issued any securities with "floating" conversion prices based on the market price of its common stock, the holder of a Series A or B Note would have the right thereafter to substitute the "floating" conversion price for the Fixed Conversion Price upon conversion of all or part of the Series A or B Note.

The Company determined that the conversion feature of the Series A and B Notes and the related warrants require bifurcation and liability classification and measurement, at fair value, and require evaluation at each reporting period. The initial fair values of the conversion feature of the Series A Notes of \$1,400,800 and the warrants of \$882,500 were accounted for as a debt discount and were amortized into interest expense as a yield adjustment over the term of the Series A Notes. The initial fair values of the conversion feature of the Series B Notes of \$2,928,500 and the warrants of \$689,300 were accounted for as a debt discount and were amortized into interest expense as a yield adjustment over the term of the Series B Notes.

In 2013, the Company made installment payments and processed a number of conversions. In the aggregate, the Company issued 4,446,000 shares of its common stock in payment of principal and interest in an aggregate amount of the \$14,000,000 in respect of the Series A and B Notes. In connection with these installment payments and conversions, the Company recorded losses on extinguishments of debt of \$4,621,000 for the year ended December 31, 2013.

As of December 31, 2013, the Series A and B Notes had been fully retired.

Acquisitions of Pacific Ethanol West Plant Debt – On January 11, 2013, the Company used \$21,500,000 of the proceeds of the January 2013 Financing Transaction to purchase from certain lenders an aggregate amount of \$21,500,000 of the Pacific Ethanol West plant owners' tranche A-2 term loans. The Company determined that the acquisition of the plant debt was a modification of terms because the lenders who held the acquired plant debt were the lenders under the January 2013 Notes. Based on the Company's review of the present value of cash flows of the January 2013 Notes compared to the older plant debt, which resulted in a less than 10% change, the modification was not significant and the Company did not record a gain or loss associated with the modification. The Company expensed certain legal costs associated with the debt modification of approximately \$408,000, rather than amortizing those expenses over the life of the debt. Because the plant debt acquired is now held by Pacific Ethanol, Inc. this specific debt is eliminated in consolidation.

On March 28, 2013, the Company used proceeds from the issuance of its Series A Notes and warrants to purchase \$3,500,000 of revolving credit facility debt, at par, from a lender. Under the terms of the amended credit facility, the Company was obligated to immediately forgive the purchased amount of revolving credit facility debt and has permanently reduced the maximum commitment on this facility to \$36,500,000.

On March 28, 2013, the Company also used proceeds from the issuance of its Series A Notes and warrants to purchase \$2,636,000 of tranche A-2 term loans and an additional 3% ownership interest in PE Op Co. for a combined purchase price of \$2,150,000. The Company first allocated \$331,000 of this payment to the PE Op Co. ownership interest and the remainder was allocated to the tranche A-2 term loans. The \$817,000 difference between the amount the Company allocated to the term loans and the face amount of \$2,636,000 was recorded as a gain on extinguishment of debt.

On June 21, 2013, the Company used proceeds from the issuance of its Series B Notes to purchase \$1,122,000 of revolving credit facility debt at a discount. Under the terms of the amended credit facility, the Company was obligated to immediately forgive the purchased amount of revolving credit facility debt and has permanently reduced the maximum commitment on this facility to \$35,378,000.

On June 21, 2013, the Company also used proceeds from the issuance of its Series B Notes to purchase \$2,907,000 of tranche A-1 and A-2 term loans at a discount and an additional 2% ownership interest in PE Op Co. for \$197,000. The Company recorded a gain on extinguishment of debt of \$998,000 related to the discount it paid for the revolving and term loans.

On June 6, 2014, the Company purchased \$14,675,000 of term debt for \$17,038,000 in cash, reducing its consolidated plant term debt by \$14,675,000, and recorded a \$2,363,000 loss on extinguishment of debt for the amount paid in excess of the principal balance.

As of December 31, 2015, the Company held an aggregate of \$41,763,000 of the tranche A-1 and tranche A-2 term loans, which has been eliminated upon consolidation.

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Pacific Ethanol Central Plants' Term Debt— As of September 30, 2015, the Pacific Ethanol Central Plants had term debt with an outstanding balance of \$145,619,000. On July 1, 2015, upon effectiveness of the Aventine acquisition, Aventine became a wholly-owned subsidiary of the Company and, on a consolidated basis, the combined company became obligated with respect to the Pacific Ethanol Central Plants' term loan and revolving credit facilities. The creditors under the term loan for the Pacific Ethanol Central Plants have recourse solely against the Pacific Ethanol Central Plants and their subsidiaries but not against Pacific Ethanol, Inc. or its other direct or indirect subsidiaries. In connection with the Company's allocation of purchase price, the debt was recorded at \$142,744,000, net of a discount of \$2,875,000.

The term loan facility matures on September 24, 2017. The term loan facility is secured through a first-priority lien on substantially all of the Pacific Ethanol Central Plants' assets and contains customary financial covenants, including the requirement that Aventine maintain a cash balance of at least \$2.0 million. Interest on the term loan facility accrues and may be paid in cash at a rate of 10.5% per annum or may be paid in-kind at a rate of 15.0% per annum by adding such interest to the outstanding principal balance. If the Company were to elect to pay interest in-kind, the interest would be capitalized at the end of each quarter. The Company paid interest in cash for the period from July 1, 2015, the effective date of the Aventine acquisition, through December 31, 2015.

On July 1, 2015, the Company repaid in full \$14.5 million, including approximately \$0.7 million in termination fees, representing all amounts owed under Aventine's revolving credit facility.

Interest Expense on Borrowings and Maturities – Interest expense on all borrowings discussed above was \$11,745,000, \$6,546,000 and \$12,680,000 for the years ended December 31, 2015, 2014 and 2013, respectively. The consolidated long-term debt matures as follows: \$17,003,000 was to mature in 2016 but was repaid in February 2016; \$145,619,000 matures in September 2017 and \$61,003,000 matures in December 2020.

At December 31, 2015, there were approximately \$164.0 million of net assets of the Company's subsidiaries that were not available to be transferred to the parent company in the form of dividends, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

10. PENSION PLANS.

Retirement Plan - The Company sponsors a defined benefit pension plan (the "Retirement Plan") that is noncontributory, and covers only "grandfathered" unionized employees at its Pekin, Illinois, facility. Benefits are based on a prescribed formula based upon the employee's years of service. On October 31, 2015, the Union ratified a new collective bargaining agreement with the Company for its hourly production workers in Pekin, Illinois. This new agreement was effective November 1, 2015. The revised amended agreement states that, among other things, employees hired after November 1, 2010, will not be eligible to participate in the Retirement Plan. The Company uses a December 31 measurement date for its Retirement Plan. The Company's funding policy is to make the minimum annual contribution that is required by applicable regulations.

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The Company assumed the Retirement Plan as part of its acquisition of Aventine on July 1, 2015. Information related to the Retirement Plan as of and for the period from July 1, 2015 to December 31, 2015 is presented below (dollars in thousands):

Amounts at the end of the year:	
Accumulated/projected benefit obligation	\$ 16,552
Fair value of plan assets	12,567
Funded status, (underfunded)/overfunded	<u>\$ (3,985)</u>
Amounts recognized in the consolidated balance sheets:	
Other liabilities	\$ (3,985)
Accumulated other comprehensive income, unrecognized net income	\$ (885)
Amounts recognized in the plan for the year:	
Company contributions	\$ —
Participant contributions	\$ —
Benefits paid	\$ (315)
Net periodic benefit cost	\$ 49
Other changes recognized in other comprehensive income:	
Net gain	\$ 885
Amortization of net gain/(loss)	—
Total recognized in other comprehensive income	<u>\$ 885</u>
Assumptions used in computation benefit obligations:	
Discount rate	4.23%
Expected long-term return on plan assets	7.75%
Rate of compensation increase	—

The Company is not expected to make contributions in the year ending December 31, 2016. Expected net periodic benefit cost for 2016 is estimated at approximately \$0.2 million.

PACIFIC ETHANOL, INC.
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The following table summarizes the expected benefit payments for the Company's plan for each of the next five fiscal years and in the aggregate for the five fiscal years thereafter (in thousands):

<u>December 31:</u>		
2016	\$	648
2017		657
2018		672
2019		684
2020		699
2021-25		3,893
	\$	<u>7,253</u>

See Note 16 for discussion of the plan's fair value disclosures.

Historical and future expected returns of multiple asset classes were analyzed to develop a risk-free real rate of return and risk premiums for each asset class. The overall rate for each asset class was developed by combining a long-term inflation component, the risk-free real rate of return, and the associated risk premium. A weighted average rate was developed based on those overall rates and the target asset allocation of the plan.

The Company's pension committee is responsible for overseeing the investment of pension plan assets. The pension committee is responsible for determining and monitoring the appropriate asset allocations and for selecting or replacing investment managers, trustees, and custodians. The pension plan's current investment target allocations are 50% equities and 50% debt. The pension committee reviews the actual asset allocation in light of these targets periodically and rebalances investments as necessary. The pension committee also evaluates the performance of investment managers as compared to the performance of specified benchmarks and peers and monitors the investment managers to ensure adherence to their stated investment style and to the plan's investment guidelines.

Postretirement Plan - The Company also sponsors a health care plan and life insurance plan (the "Postretirement Plan") that provides postretirement medical benefits and life insurance to certain "grandfathered" unionized employees. Employees hired after December 31, 2000, are not eligible to participate in the Postretirement Plan. The plan is contributory, with contributions required at the same rate as active employees. Benefit eligibility under the plan reduces at age 65 from a defined benefit to a defined dollar cap based upon years of service.

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company assumed the Postretirement Plan as part of its acquisition of Aventine on July 1, 2015. Information related to the Postretirement Plan as of and for the period from July 1, 2015 to December 31, 2015 is presented below (dollars in thousands):

Amounts at the end of the year:

Accumulated/projected benefit obligation	\$	3,619
Fair value of plan assets		—
Funded status, (underfunded)/overfunded	\$	<u>(3,619)</u>

Amounts recognized in the consolidated balance sheets:

Accrued liabilities	\$	(214)
Other liabilities	\$	(3,405)
Accumulated other comprehensive income, unrecognized net income	\$	(155)

Amounts recognized in the plan for the year:

Company contributions	\$	20
Participant contributions	\$	15
Benefits paid	\$	(35)

Net periodic benefit cost	\$	97
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Other changes recognized in OCI:

Net gain	\$	155
Amortization of net gain/(loss)		—
Total recognized in other comprehensive income	\$	<u>155</u>

Assumptions used in computation benefit obligations:

Discount rate	3.95%
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The Company does not expect to recognize any amortization of net actuarial loss during the year ended December 31, 2016.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes the expected benefit payments for the Company's plan for each of the next five fiscal years and in the aggregate for the five fiscal years thereafter (in thousands):

December 31:

2016	\$	214
2017		226
2018		174
2019		190
2020		177
2021-25		1,056
	\$	<u>2,037</u>

For purposes of determining the cost and obligation for pre-Medicare postretirement medical benefits, a 5.0% annual rate of increase in the per capita cost of covered benefits (i.e., health care trend rate) was assumed for the plan in 2016, adjusting to a rate of 5.5% in 2025. Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans.

11. INCOME TAXES.

The Company recorded a provision (benefit) for income taxes as follows (in thousands):

	Years Ended December 31,		
	2015	2014	2013
Current provision (benefit)	\$ (8,011)	\$ 11,040	\$ –
Deferred provision (benefit)	(2,023)	4,097	–
Total	<u>\$ (10,034)</u>	<u>\$ 15,137</u>	<u>\$ –</u>

A reconciliation of the differences between the United States statutory federal income tax rate and the effective tax rate as provided in the consolidated statements of operations is as follows:

	Years Ended December 31,		
	2015	2014	2013
Statutory rate	35.0%	35.0%	35.0%
State income taxes, net of federal benefit	9.2	10.0	(8.2)
Change in valuation allowance	(4.2)	(11.5)	458.0
Fair value adjustments and warrant inducements	2.0	31.8	–
Domestic production gross receipts deduction	(2.9)	(2.0)	–
Section 382 reduction to loss carryover	0.1	(24.2)	(141.1)
Stock compensation	(0.8)	–	(20.9)
Non-deductible items	(0.5)	0.6	(27.7)
Change in tax status of PE Op Co.	–	(1.6)	–
Convertible debt instruments	–	–	(297.7)
Other	(3.2)	(1.3)	2.6
Effective rate	<u>34.7%</u>	<u>36.8%</u>	<u>0.0%</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Deferred income taxes are provided using the asset and liability method to reflect temporary differences between the financial statement carrying amounts and the tax bases of assets and liabilities using presently enacted tax rates and laws. The components of deferred income taxes included in the consolidated balance sheets were as follows (in thousands):

	December 31,	
	2015	2014
Deferred tax assets:		
Net operating loss carryforwards	\$ 53,867	\$ 12,385
Railcar contracts	5,143	–
Pension liability	2,647	–
R&D and AMT credits	2,303	–
Litigation accrual	1,290	–
Capital leases	1,021	–
Stock-based compensation	724	781
Other	5,367	1,944
Total deferred tax assets	<u>72,362</u>	<u>15,110</u>
Deferred tax liabilities:		
Fixed assets	(30,272)	(24,813)
Intangibles	(1,091)	(1,134)
Debt basis	(912)	–
Other	(1,423)	(450)
Total deferred tax liabilities	<u>(33,698)</u>	<u>(26,397)</u>
Valuation allowance	(39,838)	(4,147)
Net deferred tax liabilities	<u>\$ (1,174)</u>	<u>\$ (15,434)</u>
Classified in balance sheet as:		
Deferred tax liabilities	<u>\$ (1,174)</u>	<u>\$ (15,434)</u>

A portion of the Company's net operating loss carryforwards will be subject to provisions of the tax law that limit the use of losses incurred by a company prior to the date certain ownership changes occur.

Due to the limitation, a significant portion of these net operating loss carryforwards will expire regardless of whether the Company generates future taxable income. After reducing these net operating loss carryforwards for the amount which will expire, the Company had federal net operating loss carryforwards of approximately \$137,611,000 and state net operating loss carryforwards of approximately \$123,462,000 at December 31, 2015. These net operating loss carryforwards expire as follows (in thousands):

<u>Tax Years</u>	<u>Federal</u>	<u>State</u>
2016–2020	\$ –	\$ 21,344
2021–2025	7,258	1,412
2026–2030	13,624	33,635
2031–2035	116,729	67,071
	<u>\$ 137,611</u>	<u>\$ 123,462</u>

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Certain of these net operating losses are not immediately available, but become available to be utilized in each of the years ended December 31, as follows (in thousands):

<u>Year</u>	<u>Federal</u>	<u>State</u>
2016	\$ 26,820	\$ 32,504
2017	10,862	6,748
2018	10,862	6,748
2019	6,383	6,277
2020	5,282	6,169
Thereafter	77,402	65,016
	<u>\$ 137,611</u>	<u>\$ 123,462</u>

To the extent amounts are not utilized in any year, they may be carried forward to the next year until expiration. These amounts may change if there are future additional limitations on their utilization.

In assessing whether the deferred tax assets are realizable, a more likely than not standard is applied. If it is determined that it is more likely than not that deferred tax assets will not be realized, a valuation allowance must be established against the deferred tax assets. The ultimate realization of deferred tax assets is dependent upon the generation of future taxable income during the periods in which the associated temporary differences become deductible. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies in making this assessment.

A valuation allowance has been established in the amount of \$39,838,000, \$4,147,000 and \$8,422,000 at December 31, 2015, 2014 and 2013, respectively, based on the Company's assessment of the future realizability of certain deferred tax assets. For the years ended December 31, 2015 and 2014, the Company recorded an increase of \$1,221,000 and a decrease of \$4,275,000 in the valuation allowance, respectively. During the year ended December 31, 2015, the Company recognized \$1,500,000 in tax benefit related to adjustments to its tax asset valuation allowance from a prior year. In addition, a valuation allowance of \$34,469,000 was recorded against the Aventine deferred tax assets with respect to purchase accounting, attributable almost exclusively to the expected expiration of net operating loss carryforwards due to limitations caused by ownership changes as previously discussed. The valuation allowance on deferred tax assets is related to future deductible temporary differences and net operating loss carryforwards (exclusive of net operating losses associated with items recorded directly to equity) for which the Company has concluded it is more likely than not that these items will not be realized in the ordinary course of operations.

At December 31, 2015, the Company had no increase or decrease in unrecognized income tax benefits for the year as a result of uncertain tax positions taken in a prior or current period. There was no accrued interest or penalties relating to tax uncertainties at December 31, 2015. Unrecognized tax benefits are not expected to increase or decrease within the next twelve months.

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The Company is subject to income tax in the United States federal jurisdiction and various state jurisdictions and has identified its federal tax return and tax returns in state jurisdictions below as “major” tax filings. These jurisdictions, along with the years still open to audit under the applicable statutes of limitation, are as follows:

<u>Jurisdiction</u>	<u>Tax Years</u>
Federal	2012 – 2014
Arizona	2012 – 2014
California	2011 – 2014
Colorado	2011 – 2014
Idaho	2012 – 2014
Illinois	2012 – 2014
Indiana	2012 – 2014
Iowa	2014
Kansas	2014
Minnesota	2014
Missouri	2014
Nebraska	2012 – 2014
Oklahoma	2014
Oregon	2012 – 2014

However, because the Company had net operating losses and credits carried forward in several of the jurisdictions, including the United States federal and California jurisdictions, certain items attributable to closed tax years are still subject to adjustment by applicable taxing authorities through an adjustment to tax attributes carried forward to open years.

12. PREFERRED STOCK.

The Company has 6,734,835 undesignated shares of authorized and unissued preferred stock, which may be designated and issued in the future on the authority of the Company’s Board of Directors. As of December 31, 2015, the Company had the following designated preferred stock:

Series A Preferred Stock – The Company has authorized 1,684,375 shares of Series A Cumulative Redeemable Convertible Preferred Stock (“Series A Preferred Stock”), with none outstanding at December 31, 2015 and 2014. Shares of Series A Preferred Stock that are converted into shares of the Company’s common stock revert to undesignated shares of authorized and unissued preferred stock.

Upon any issuance, the Series A Preferred Stock would rank senior in liquidation and dividend preferences to the Company’s common stock. Holders of Series A Preferred Stock would be entitled to quarterly cumulative dividends payable in arrears in cash in an amount equal to 5% per annum of the purchase price per share of the Series A Preferred Stock. The holders of the Series A Preferred Stock would have conversion rights initially equivalent to two shares of common stock for each share of Series A Preferred Stock, subject to customary antidilution adjustments. Certain specified issuances will not result in antidilution adjustments. The shares of Series A Preferred Stock would also be subject to forced conversion upon the occurrence of a transaction that would result in an internal rate of return to the holders of the Series A Preferred Stock of 25% or more. Accrued but unpaid dividends on the Series A Preferred Stock are to be paid in cash upon any conversion of the Series A Preferred Stock.

The holders of Series A Preferred Stock would have a liquidation preference over the holders of the Company’s common stock equivalent to the purchase price per share of the Series A Preferred Stock plus any accrued and unpaid dividends on the Series A Preferred Stock. A liquidation would be deemed to occur upon the happening of customary events, including transfer of all or substantially all of the Company’s capital stock or assets or a merger, consolidation, share exchange, reorganization or other transaction or series of related transactions, unless holders of 66 2/3% of the Series A Preferred Stock vote affirmatively in favor of or otherwise consent to such transaction.

PACIFIC ETHANOL, INC.
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Series B Preferred Stock – The Company has authorized 1,580,790 shares of Series B Cumulative Convertible Preferred Stock (“Series B Preferred Stock”), with 926,942 shares outstanding at December 31, 2015 and 2014. Shares of Series B Preferred Stock that are converted into shares of the Company’s common stock revert to undesignated shares of authorized and unissued preferred stock.

The Series B Preferred Stock ranks senior in liquidation and dividend preferences to the Company’s common stock. Holders of Series B Preferred Stock are entitled to quarterly cumulative dividends payable in arrears in cash in an amount equal to 7.00% per annum of the purchase price per share of the Series B Preferred Stock; however, subject to the provisions of the Letter Agreement described below, such dividends may, at the option of the Company, be paid in additional shares of Series B Preferred Stock based initially on the liquidation value of the Series B Preferred Stock. In addition to the quarterly cumulative dividends, holders of the Series B Preferred Stock are entitled to participate in any common stock dividends declared by the Company to its common stockholders. The holders of Series B Preferred Stock have a liquidation preference over the holders of the Company’s common stock initially equivalent to \$19.50 per share of the Series B Preferred Stock plus any accrued and unpaid dividends on the Series B Preferred Stock. A liquidation will be deemed to occur upon the happening of customary events, including the transfer of all or substantially all of the capital stock or assets of the Company or a merger, consolidation, share exchange, reorganization or other transaction or series of related transaction, unless holders of 66 2/3% of the Series B Preferred Stock vote affirmatively in favor of or otherwise consent that such transaction shall not be treated as a liquidation. The Company believes that such liquidation events are within its control and therefore has classified the Series B Preferred Stock in stockholders’ equity.

As of December 31, 2015, the Series B Preferred Stock was convertible into 634,641 shares of the Company’s common stock. The conversion ratio is subject to customary antidilution adjustments. In addition, antidilution adjustments are to occur in the event that the Company issues equity securities, including derivative securities convertible into equity securities (on an as-converted or as-exercised basis), at a price less than the conversion price then in effect. The shares of Series B Preferred Stock are also subject to forced conversion upon the occurrence of a transaction that would result in an internal rate of return to the holders of the Series B Preferred Stock of 25% or more. The forced conversion is to be based upon the conversion ratio as last adjusted. Accrued but unpaid dividends on the Series B Preferred Stock are to be paid in cash upon any conversion of the Series B Preferred Stock.

The holders of Series B Preferred Stock vote together as a single class with the holders of the Company’s common stock on all actions to be taken by the Company’s stockholders. Each share of Series B Preferred Stock entitles the holder to approximately 0.03 votes per share on all matters to be voted on by the stockholders of the Company. Notwithstanding the foregoing, the holders of Series B Preferred Stock are afforded numerous customary protective provisions with respect to certain actions that may only be approved by holders of a majority of the shares of Series B Preferred Stock.

In 2008, the Company entered into Letter Agreements with Lyles United LLC (“Lyles United”) and other purchasers under which the Company expressly waived its rights under the Certificate of Designations relating to the Series B Preferred Stock to make dividend payments in additional shares of Series B Preferred Stock in lieu of cash dividend payments without the prior written consent of Lyles United and the other purchasers.

Registration Rights Agreement – In connection with the sale of its Series B Preferred Stock, the Company entered into a registration rights agreement with Lyles United. The registration rights agreement is to be effective until the holders of the Series B Preferred Stock, and their affiliates, as a group, own less than 10% for each of the series issued, including common stock into which such Series B Preferred Stock has been converted. The registration rights agreement provides that holders of a majority of the Series B Preferred Stock, including common stock into which such Series B Preferred Stock has been converted, may demand and cause the Company to register on their behalf the shares of common stock issued, issuable or that may be issuable upon conversion of the Preferred Stock and as payment of dividends thereon, and upon exercise of the related warrants (collectively, the “Registrable Securities”). The Company is required to keep such registration statement effective until such time as all of the Registrable Securities are sold or until such holders may avail themselves of Rule 144 for sales of Registrable Securities without registration under the Securities Act of 1933, as amended. The holders are entitled to two demand registrations on Form S-1 and unlimited demand registrations on Form S-3; provided, however, that the Company is not obligated to effect more than one demand registration on Form S-3 in any calendar year. In addition to the demand registration rights afforded the holders under the registration rights agreement, the holders are entitled to unlimited “piggyback” registration rights. These rights entitle the holders who so elect to be included in registration statements to be filed by the Company with respect to other registrations of equity securities. The Company is responsible for all costs of registration, plus reasonable fees of one legal counsel for the holders, which fees are not to exceed \$25,000 per registration. The registration rights agreement includes customary representations and warranties on the part of both the Company and the holders and other customary terms and conditions.

PACIFIC ETHANOL, INC.
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The Company accrued and paid in cash preferred stock dividends of \$1,265,000 for each of the years ended December 31, 2015, 2014 and 2013.

For the years ended December 31, 2011, 2010 and 2009, the Company accrued but did not pay any preferred stock dividends. Beginning in 2012, the Company entered into a series of agreements with the parties to whom unpaid dividends were owed under which the Company issued shares of its common stock in satisfaction of a portion of the accrued and unpaid dividends. In connection with each payment of accrued and unpaid dividends, the payees agreed to forbear for a term from exercising any rights they may have with the respect to accrued and unpaid dividends. In 2014, the Company paid the last two installments in cash. The following table summarizes the details of the Company's payments to the holders of its Series B Preferred Stock:

<u>Agreement/Payment Date</u>	<u>Amount of Dividends Paid</u>	<u>Shares of Common Stock Issued</u>	<u>Extended Forbearance Date</u>
August 12, 2012	\$ 732,000	157,000	January 1, 2014
December 26, 2012	732,000	144,500	June 30, 2014
March 27, 2013	732,000	139,000	September 30, 2014
July 26, 2013	731,000	175,000	December 31, 2014
September 17, 2013	731,000	197,000	March 31, 2015
May 23, 2014	1,463,000	120,000	November 30, 2015
November 24, 2014	1,000,000	-	
December 23, 2014	1,194,000	-	
	<u>\$ 7,315,000</u>	<u>932,500</u>	

13. COMMON STOCK AND WARRANTS.

The following table summarizes warrant activity for the years ended December 31, 2015, 2014 and 2013 (number of shares in thousands):

	Number of Shares	Price per Share	Weighted Average Exercise Price
Balance at December 31, 2012	5,039	\$1.80 – \$745.50	\$ 17.10
Warrants issued	3,548	\$6.32 – \$7.59	\$ 6.98
Warrants exercised	(285)	\$1.80 – \$8.85	\$ 7.27
Warrants expired	(27)	\$ 745.50	\$ 745.50
Balance at December 31, 2013	8,275	\$5.47 – \$735.00	\$ 10.04
Warrants exercised	(6,615)	\$6.09 – \$8.85	\$ 7.17
Warrants expired	(804)	\$ 5.47	\$ 5.47
Balance at December 31, 2014	856	\$6.09 – \$735.00	\$ 36.55
Warrants exercised	(42)	\$ 8.85	\$ 8.85
Warrants expired	(432)	\$ 8.85	\$ 8.85
Balance at December 31, 2015	<u>382</u>	<u>\$6.09 – \$735.00</u>	<u>\$ 70.87</u>

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January 2013 Financing – In connection with the January 2013 Financing Transaction, the Company issued warrants to purchase an aggregate of 1,708,700 shares of common stock. All of the warrants were exercised in 2014.

Series A and B Notes – In connection with the Company's issuance of its Series A and B Notes, the Company issued warrants to purchase up to 788,400 and 1,051,200 shares of common stock, respectively. All of the warrants were exercised in 2014.

September 2012 Public Offering – On September 26, 2012, the Company raised \$10,091,000, net of \$909,000 of underwriting fees and issuance costs, through a public offering of units consisting of an aggregate of 1,833,000 shares of common stock and warrants immediately exercisable to purchase an aggregate of 1,833,000 shares of common stock at an exercise price of \$8.85 per share and which expire in September 2015. The Company accounted for the net proceeds of the offering by first allocating the \$1,658,000 fair value of the warrants to liabilities and then allocating the remaining amount to equity. As of December 31, 2015, all of these warrants were either exercised or expired.

July 2012 Public Offering – On July 3, 2012, the Company raised \$10,903,000, net of \$1,137,000 of underwriting fees and issuance costs, through a public offering of units consisting of an aggregate of 1,867,000 shares of common stock, warrants immediately exercisable to purchase an aggregate of 1,867,000 shares of common stock at an exercise price of \$9.45 per share and which expire in 2017 ("Series I Warrants") and warrants immediately exercisable to purchase an aggregate of 933,000 shares of common stock at an exercise price of \$7.95 per share and which expire in 2014 ("Series II Warrants"). The Series I Warrants and the Series II Warrants are subject to "weighted-average" anti-dilution adjustments if the Company issues or is deemed to have issued securities at a price lower than their then applicable exercise prices. Due to subsequent transactions, the exercise price of the Series I Warrants was reduced to \$6.09 per share and the exercise price of the Series II Warrants was reduced to \$5.47 per share. The Company accounted for the net proceeds of the offering by first allocating the \$3,380,000 fair value of the warrants to liabilities and then allocating the remaining amount to equity. The Series II Warrants expired unexercised. As of December 31, 2015, Series I Warrants to purchase 211,000 shares of common stock remained outstanding.

Warrant Inducements – During 2014 and 2013, certain holders exercised warrants and received payments from the Company in the aggregate amounts of \$2,271,000 and \$785,800, respectively, in cash as an inducement for these exercises, which were recorded as an expense. There were no warrant inducements in 2015.

Warrant Terms – The exercise prices of the warrants described above are subject to adjustment for stock splits, combinations or similar events, and, in such event, the number of shares issuable upon the exercise of the warrants will also be adjusted so that the aggregate exercise price shall be the same immediately before and immediately after the adjustment. The warrants generally require payments to be made by the Company for failure to deliver the shares of common stock issuable upon exercise. The warrants may not be exercised if, after giving effect to the exercise, the investor together with its affiliates would beneficially own in excess of 4.99% of the Company's outstanding shares of common stock. The blocker applicable to the exercise of the warrants may be raised or lowered to any other percentage not in excess of 9.99%, except that any increase will only be effective upon 61-days' prior notice to the Company. If the Company issues options, convertible securities, warrants, stock, or similar securities to holders of its common stock generally, each holder of certain warrants has the right to acquire the same securities as if the holder had exercised its warrants. The warrants prohibit the Company from entering into specified transactions involving a change of control, unless the successor entity assumes all of the Company's obligations under the warrants under a written agreement before the transaction is completed. When there is a transaction involving a permitted change of control, a holder of a warrant will have the right to force the Company to repurchase the holder's warrant for a purchase price in cash equal to the Black-Scholes value (as calculated under the individual warrant agreements) of the then unexercised portion of the warrant.

Accounting for Warrants – The Company has determined that the warrants issued in the above transactions did not meet the conditions for classification in stockholders' equity and as such, the Company has recorded them as a liability at fair value. The Company will revalue them at each reporting period. Further, as noted above, certain of the exercise prices declined as a result of the anti-dilution adjustments due to subsequent transactions. Accordingly, the Company recorded fair value adjustments quarterly, with total fair value adjustments of \$1,641,000 of income for the year ended December 31, 2015 and \$35,260,000 and \$648,000 of expense for the years ended December 31, 2014, 2013, respectively, which is largely attributed to adjustment, if any, to their exercise prices, term shortening and changes in the market value of the Company's common stock. See Note 15 for the Company's fair value assumptions.

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Registration Rights Agreements – In connection with the above issuances, the Company entered into a registration rights agreements with all of the investors to file registration statements on Form S-1 or S-3 with the Securities and Exchange Commission by certain dates for the resale by the purchasers of the shares of common stock issued and the shares of common stock issuable upon exercise of the warrants. Subject to customary grace periods, the Company is required to keep the registration statements (and the accompanying prospectuses) available for use for resale by the investors on a delayed or continuous basis at then-prevailing market prices at all times until the earlier of (i) the date as of which all of the investors may sell all of the shares of common stock required to be covered by the registration statement without restriction under Rule 144 under the Securities Act of 1933, as amended (including volume restrictions) and without the need for current public information required by Rule 144(c)(1), if applicable) or (ii) the date on which the investors have sold all of the shares of common stock covered by the registration statement. The Company must pay registration delay payments of up to 2% of each investor’s initial investment per month if the registration statement ceases to be effective prior to the expiration of deadlines provided for in the registration rights agreement. The initial registration statements became effective by the stated deadlines and the Company did not record any liability associated with any registration delay payments under the registration rights agreements.

14. STOCK-BASED COMPENSATION.

The Company has two equity incentive compensation plans: a 2004 Stock Option Plan and a 2006 Stock Incentive Plan.

2004 Stock Option Plan – The 2004 Stock Option Plan authorized the issuance of incentive stock options (“ISOs”) and non-qualified stock options (“NQOs”) to the Company’s officers, directors or key employees or to consultants that do business with the Company for up to an aggregate of 23,810 shares of common stock. On September 7, 2006, the Company terminated the 2004 Stock Option Plan, except to the extent of issued and outstanding options then existing under the plan. The Company had options outstanding to purchase 762 shares of common stock under its 2004 Stock Option Plan at December 31, 2014. These options expired unexercised in 2015.

2006 Stock Incentive Plan – The 2006 Stock Incentive Plan authorizes the issuance of ISOs, NQOs, restricted stock, restricted stock units, stock appreciation rights, direct stock issuances and other stock-based awards to the Company’s officers, directors or key employees or to consultants that do business with the Company for up to an aggregate of 1,715,000 shares of common stock.

Stock Options – On June 18, 2013, the Company granted options to purchase an aggregate of 229,000 shares of the Company’s common stock at an exercise price of \$3.74 per share, which was the closing price per share of the Company’s common stock on the date of grant, with an estimated fair value of \$1.68. The options vested as to 33% on each of April 1, 2014 and April 1, 2015 and vest as to 34% on April 1, 2016. The options expire 10 years from the date of grant. Fair value was determined using the Black-Scholes Option Pricing Model. The inputs to estimating fair value were: exercise price of \$3.74; estimated life of 3.0 years; expected volatility of 68.0%, risk free interest rate of 0.57% and no dividend yield. The Company estimated expected volatility using peer companies within its industry.

Summaries of the status of Company’s stock option plans as of December 31, 2015 and 2014 and of changes in options outstanding under the Company’s plans during those years are as follows (shares in thousands):

	Years Ended December 31,			
	2015		2014	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at beginning of year	241	\$ 6.91	241	\$ 6.91
Expired	(1)	867.24	–	–
Outstanding at end of year	240	\$ 4.18	241	\$ 6.91
Options exercisable at end of year	164	\$ 4.18	89	\$ 11.59

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Stock options outstanding as of December 31, 2015 were as follows (number of shares in thousands):

Range of Exercise Prices	Options Outstanding			Options Exercisable		
	Number Outstanding	Weighted Average Remaining Contractual Life (yrs.)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price	
\$ 3.74	229	7.47	\$ 3.74	153	\$ 3.74	
\$ 12.90	11	5.59	\$ 12.90	11	\$ 12.90	

The options outstanding at December 31, 2015 and 2014 had intrinsic values of \$238,000 and \$1,509,000, respectively.

Restricted Stock— The Company granted to certain employees and directors shares of restricted stock under its 2006 Stock Incentive Plan pursuant to restricted stock agreements. A summary of unvested restricted stock activity is as follows (shares in thousands):

	Number of Shares	Weighted Average Grant Date Fair Value Per Share
Unvested at December 31, 2012	16	\$ 50.40
Issued	615	\$ 4.56
Vested	(142)	\$ 7.85
Canceled	(17)	\$ 6.20
Unvested at December 31, 2013	472	\$ 5.07
Issued	155	\$ 15.23
Vested	(227)	\$ 5.79
Canceled	(10)	\$ 4.30
Unvested at December 31, 2014	390	\$ 8.71
Issued	307	\$ 10.16
Vested	(220)	\$ 7.94
Canceled	(14)	\$ 10.08
Unvested at December 31, 2015	463	\$ 10.00

The fair value of the common stock at vesting aggregated \$2,603,000, \$3,858,000 and \$601,000 for the years ended December 31, 2015, 2014 and 2013, respectively. Stock-based compensation expense related to employee and non-employee restricted stock and option grants recognized in selling, general and administrative expenses, were as follows (in thousands):

	Years Ended December 31,		
	2015	2014	2013
Employees	\$ 1,694	\$ 1,493	\$ 1,333
Non-employees	325	345	391
Total stock-based compensation expense	\$ 2,019	\$ 1,838	\$ 1,724

At December 31, 2015, the total compensation cost related to unvested awards which had not been recognized was \$4,622,000 and the associated weighted-average period over which the compensation cost attributable to those unvested awards would be recognized is approximately 2 years.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

15. COMMITMENTS AND CONTINGENCIES.

Commitments – The following is a description of significant commitments at December 31, 2015:

Leases – Future minimum lease payments required by non-cancelable leases in effect at December 31, 2015 are as follows (in thousands):

Years Ended December 31,	Capital Leases	Operating Leases
2016	\$ 4,630	\$ 15,662
2017	3,731	11,647
2018	547	8,212
2019	–	5,558
2020	–	953
Thereafter	–	1,649
Total minimum payments	8,908	\$ 43,681
Amount representing interest	(477)	
Obligations under capital leases	8,431	
Obligations due within one year	(4,248)	
Long-term obligations under capital leases	\$ 4,183	

Total rent expense during the years ended December 31, 2015, 2014 and 2013 was \$9,528,000 \$2,417,000 and \$1,454,000, respectively.

Sales Commitments – At December 31, 2015, the Company had entered into sales contracts with its major customers to sell certain quantities of ethanol and co-products. The Company had open ethanol indexed-price contracts for 307,670,000 gallons of ethanol as of December 31, 2015 and open indexed-price ethanol sales contracts valued at \$15,041,000 as of December 31, 2015. The Company had open fixed-price co-product sales contracts valued at \$23,241,000 and open indexed-price co-product sales contracts for 181,000 tons as of December 31, 2015. These sales contracts are scheduled to be completed throughout 2016.

Purchase Commitments – At December 31, 2015, the Company had indexed-price purchase contracts to purchase 23,944,000 gallons of ethanol and fixed-price purchase contracts to purchase \$5,793,000 of ethanol from its suppliers. The Company had fixed-price purchase contracts to purchase \$20,693,000 of corn from its suppliers. These purchase commitments are scheduled to be satisfied throughout 2016.

Other Commitments – At December 31, 2015, the Company had firm commitments for various capital and process improvement projects at the Company's plants of approximately \$5,198,000, most of which is expected to be completed in 2016.

Contingencies – The following is a description of significant contingencies at December 31, 2015:

Litigation – The Company is subject to various claims and contingencies in the ordinary course of its business, including those related to litigation, business transactions, employee-related matters, and others. When the Company is aware of a claim or potential claim, it assesses the likelihood of any loss or exposure. If it is probable that a loss will result and the amount of the loss can be reasonably estimated, the Company will record a liability for the loss. If the loss is not probable or the amount of the loss cannot be reasonably estimated, the Company discloses the claim if the likelihood of a potential loss is reasonably possible and the amount involved could be material. While there can be no assurances, the Company does not expect that any of its pending legal proceedings will have a material financial impact on the Company's operating results.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pacific Ethanol, Inc., through a subsidiary acquired in its acquisition of Aventine, became involved in a pending lawsuit with Western Sugar Cooperative (“Western Sugar”) that pre-dated the Aventine acquisition.

On February 27, 2015, Western Sugar filed a complaint in the United States District Court for the District of Colorado (Case No. 1:15-cv-00415) naming Aventine Renewable Energy, Inc. (“ARE, Inc.”), one of Aventine’s subsidiaries, as defendant. Western Sugar amended its complaint on April 21, 2015. ARE, Inc. purchased surplus sugar through a United States Department of Agriculture program. Western Sugar was one of the entities that warehoused this sugar for ARE, Inc. The suit alleges that ARE, Inc. breached its contract with Western Sugar by failing to pay certain penalty rates for the storage of its sugar or alternatively failing to pay a premium rate for storage. Western Sugar alleges that the penalty rates apply because ARE, Inc. failed to take timely delivery or otherwise cause timely shipment of the sugar. Western Sugar claims “expectation damages” in the amount of approximately \$8.6 million. ARE, Inc. filed answers to Western Sugar’s complaint and amended complaint generally denying Western Sugar’s allegations and asserting various defenses. The case is currently in its discovery phase.

The Company, through subsidiaries acquired in its acquisition of Aventine, became involved in various pending lawsuits with Aurora Cooperative Elevator Company (“Aurora Coop”) that pre-dated the Aventine acquisition.

On July 26, 2015, the Company settled all outstanding litigation with Aurora Coop. The Company and Aurora Coop agreed to dismiss all lawsuits with prejudice with no admission of fault or liability by the parties, and to release the alleged option held by Aurora Coop to repurchase the land upon which the Company’s 110 million gallon ethanol production facility in Aurora, Nebraska is located (the “Aurora West Facility”). In addition, the parties agreed to terminate the grain supply, marketing and various other agreements between them or their subsidiaries. Under the terms of the settlement, the Company and Aurora Coop will each bear its own costs and fees associated with the lawsuits and the settlement. The Company and Aurora Coop agreed to continue to work together to amend or replace certain real property easements currently in place to ensure continued mutual access by both parties to a system of rails, rail switches, roads, electrical improvements, and utilities already constructed near the Aurora West Facility.

On May 24, 2013, GS CleanTech Corporation (“GS CleanTech”), filed a suit in the United States District Court for the Eastern District of California, Sacramento Division (Case No.: 2:13-CV-01042-JAM-AC), naming Pacific Ethanol, Inc. as a defendant. On August 29, 2013, the case was transferred to the United States District Court for the Southern District of Indiana and made part of the pre-existing multi-district litigation involving GS CleanTech and multiple defendants. The suit alleged infringement of a patent assigned to GS CleanTech by virtue of certain corn oil separation technology in use at one or more of the ethanol production facilities in which the Company has an interest, including Pacific Ethanol Stockton LLC (“PE Stockton”), located in Stockton, California. The complaint sought preliminary and permanent injunctions against the Company, prohibiting future infringement on the patent owned by GS CleanTech and damages in an unspecified amount adequate to compensate GS CleanTech for the alleged patent infringement, but in any event no less than a reasonable royalty for the use made of the inventions of the patent, plus attorneys’ fees. The Company answered the complaint, counterclaimed that the patent claims at issue, as well as the claims in several related patents, are invalid and unenforceable and that the Company is not infringing. Pacific Ethanol, Inc. does not itself use any corn oil separation technology and may seek a dismissal on those grounds.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

On March 17 and March 18, 2014, GS CleanTech filed suit naming as defendants two Company subsidiaries: PE Stockton and Pacific Ethanol Magic Valley, LLC (“PE Magic Valley”). The claims were similar to those filed against Pacific Ethanol, Inc. in May 2013. These two cases were transferred to the multi-district litigation division in United States District Court for the Southern District of Indiana, where the case against Pacific Ethanol, Inc. was pending. Although PE Stockton and PE Magic Valley do separate and market corn oil, Pacific Ethanol, Inc., PE Stockton and PE Magic Valley strongly disagree that either of the subsidiaries use corn oil separation technology that infringes the patent owned by GS CleanTech. In a January 16, 2015 decision, the District Court for the Southern District of Indiana ruled in favor of a stipulated motion for partial summary judgment for Pacific Ethanol, Inc., PE Stockton and PE Magic Valley finding that all of the GS CleanTech patents in the suit were invalid and, therefore, not infringed. GS CleanTech has said it will appeal this decision when the remaining claim in the suit has been decided. The only remaining claim alleges that GS CleanTech inequitably conducted itself before the United States Patent Office when obtaining the patents at issue.

A trial in the District Court for the Southern District of Indiana was conducted in October 2015 on that single issue as well as whether GS CleanTech’s behavior during prosecution of the patents renders this an exceptional case. The Company is awaiting the court’s decision. If the Defendants, including Pacific Ethanol, Inc., PE Stockton and PE Magic Valley, succeed in proving inequitable conduct, and that GS CleanTech’s behavior makes this an “exceptional case” such a finding would allow the Court to award to Pacific Ethanol, Inc., PE Stockton and PE Magic Valley the attorneys’ fees expended to date for defense in this case. It is unknown whether GS CleanTech would appeal such a ruling.

The Company did not record a provision for these matters as of December 31, 2015 as the Court has now ruled that all of the GS CleanTech patents in the suit are invalid and, therefore, not infringed. Further, the Company believes a material adverse ruling on appeal against Pacific Ethanol, Inc., PE Stockton and/or PE Magic Valley is not probable. The Company believes that any liability Pacific Ethanol, Inc., PE Stockton and/or PE Magic Valley may incur would not have a material adverse effect on the Company’s financial condition or its results of operations.

The Company has evaluated the above cases as well as other pending cases. The Company currently has recorded \$3.3 million as a litigation contingency liability with respect to these cases for amounts that are probable and estimable.

16. FAIR VALUE MEASUREMENTS.

The fair value hierarchy prioritizes the inputs used in valuation techniques into three levels, as follows:

- Level 1 – Observable inputs – unadjusted quoted prices in active markets for identical assets and liabilities;
- Level 2 – Observable inputs other than quoted prices included in Level 1 that are observable for the asset or liability through corroboration with market data; and
- Level 3 – Unobservable inputs – includes amounts derived from valuation models where one or more significant inputs are unobservable. For fair value measurements using significant unobservable inputs, a description of the inputs and the information used to develop the inputs is required along with a reconciliation of Level 3 values from the prior reporting period.

Pooled separate accounts – Pooled separate accounts invest primarily in domestic and international stocks, commercial paper or single mutual funds. The net asset value is used as a practical expedient to determine fair value for these accounts. Each pooled separate account provides for redemptions by the Retirement Plan at reported net asset values per share, with little to no advance notice requirement, therefore these funds are classified within Level 2 of the valuation hierarchy.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Warrants – Except for the warrants issued September 26, 2012, the Company’s warrants were valued using a Monte Carlo Binomial Lattice-Based valuation methodology, adjusted for marketability restrictions. The warrants issued September 26, 2012, due to no anti-dilution protection features, were valued using the Black-Scholes Valuation Model.

The Company recorded its warrants issued from 2011 through 2012 and the conversion features associated with its convertible notes at fair value and designated them as Level 3 on their issuance dates.

Significant assumptions used and related fair values for the warrants as of December 31, 2015 were as follows:

<u>Original Issuance</u>	<u>Exercise Price</u>	<u>Volatility</u>	<u>Risk Free Interest Rate</u>	<u>Term (years)</u>	<u>Market Discount</u>	<u>Warrants Outstanding</u>	<u>Fair Value</u>
07/3/2012	\$ 6.09	49.1%	0.86%	1.51	22.9%	211,000	200,000
12/13/2011	\$ 8.43	48.4%	0.65%	0.95	18.3%	138,000	73,000
							<u>\$ 273,000</u>

Significant assumptions used and related fair values for the warrants as of December 31, 2014 were as follows:

<u>Original Issuance</u>	<u>Exercise Price</u>	<u>Volatility</u>	<u>Risk Free Interest Rate</u>	<u>Term (years)</u>	<u>Market Discount</u>	<u>Warrants Outstanding</u>	<u>Fair Value</u>
09/26/2012	\$ 8.85	51.0%	0.19%	0.74	37.0%	473,000	748,000
07/3/2012	\$ 6.09	56.1%	0.89%	2.51	32.8%	211,000	811,000
12/13/2011	\$ 8.43	54.3%	0.67%	1.95	28.7%	138,000	427,000
							<u>\$ 1,986,000</u>

The estimated fair value of the warrants is affected by the above underlying inputs. Observable inputs include the values of exercise price, stock price, term and risk-free interest rate. As separate inputs, an increase (decrease) in either the term or risk free interest rate will result in an increase (decrease) in the estimated fair value of the warrant.

Unobservable inputs include volatility and market discount. An increase (decrease) in volatility will result in an increase (decrease) in the estimated warrant value and an increase (decrease) in the market discount will result in a decrease (increase) in the estimated warrant fair value.

The volatility utilized was a blended average of the Company’s historical volatility and implied volatilities derived from a selected peer group. The implied volatility component has remained relatively constant over time given that implied volatility is a forward-looking assumption based on observable trades in public option markets. Should the Company’s historical volatility increase (decrease) on a go-forward basis, the resulting value of the warrants would increase (decrease).

The market discount, or a discount for lack of marketability, is quantified using a Black-Scholes option pricing model, with a primary model input of assumed holding period restriction. As the assumed holding period increases (decreases), the market discount increases (decreases), conversely impacting the value of the warrant fair value.

Convertible Notes – The conversion feature imbedded in the convertible notes was valued using a Monte Carlo Binomial Lattice-Based valuation methodology, adjusted for marketability restrictions. The Company estimated the fair value of the conversion feature until the retirement of the convertible notes in December 2013.

Other Derivative Instruments – The Company’s other derivative instruments consist of commodity positions. The fair values of the commodity positions are based on quoted prices on the commodity exchanges and are designated as Level 1 inputs.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes recurring fair value measurements by level at December 31, 2015 (in thousands):

	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Benefit Plan Percentage Allocation</u>
Assets:					
Derivative financial instruments(1)	\$ 2,081	\$ 2,081	\$ –	\$ –	
Defined benefit plan assets(2) (pooled separate accounts):					
Large U.S. Equity (3)	3,662	–	3,662	–	29%
Small/Mid U.S. Equity(4)	1,099	–	1,099	–	9%
International Equity(5)	1,525	–	1,525	–	12%
Fixed Income(6)	6,281	–	6,281	–	50%
	<u>\$ 14,648</u>	<u>\$ 2,081</u>	<u>12,567</u>	<u>\$ –</u>	
Liabilities:					
Warrants (7)	\$ (273)	\$ –	\$ –	\$ (273)	
Derivative financial instruments(8)	(1,848)	(1,848)	–	–	
	<u>\$ (2,121)</u>	<u>\$ (1,848)</u>	<u>\$ –</u>	<u>\$ (273)</u>	

The following table summarizes recurring fair value measurements by level at December 31, 2014 (in thousands):

	<u>Fair Value</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>
Assets:				
Derivative financial instruments(1)	\$ 1,586	\$ 1,586	\$ –	\$ –
	<u>\$ 1,586</u>	<u>\$ 1,586</u>	<u>\$ –</u>	<u>\$ –</u>
Liabilities:				
Warrants	\$ (1,986)	\$ –	\$ –	\$ (1,986)
Derivative financial instruments	(1,149)	(1,149)	–	–
	<u>\$ (3,135)</u>	<u>\$ (1,149)</u>	<u>\$ –</u>	<u>\$ (1,986)</u>

(1) Included in other current assets in the consolidated balance sheets.

(2) See Note 10 for accounting discussion.

(3) This category includes investments in funds comprised of equity securities of large U.S. companies. The funds are valued using the net asset value method in which an average of the market prices for the underlying investments is used to value the fund.

(4) This category includes investments in funds comprised of equity securities of small- and medium-sized U.S. companies. The funds are valued using the net asset value method in which an average of the market prices for the underlying investments is used to value the fund.

(5) This category includes investments in funds comprised of equity securities of foreign companies including emerging markets. The funds are valued using the net asset value method in which an average of the market prices for the underlying investments is used to value the fund.

(6) This category includes investments in funds comprised of U.S. and foreign investment-grade fixed income securities, high-yield fixed income securities that are rated below investment-grade, U.S. treasury securities, mortgage-backed securities, and other asset-backed securities. The funds are valued using the net asset value method in which an average of the market prices for the underlying investments is used to value the fund.

(7) Included in warrant liabilities at fair value in the consolidated balance sheets.

(8) Included in accrued liabilities in the consolidated balance sheets.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For fair value measurements using significant unobservable inputs (Level 3), a description of the inputs and the information used to develop the inputs is required along with a reconciliation of Level 3 values from the prior reporting period. The changes in the Company's fair value of its Level 3 inputs with respect to its warrants were as follows (in thousands):

	Warrants	Conversion Features
Balance, December 31, 2012	\$ 4,892	\$ —
Issuance of warrants in January offering	\$ 2,657	\$ —
Issuance of notes and warrants in March offering	1,572	1,401
Issuance of notes in June offering	—	2,929
Conversions of notes	—	(5,205)
Exercises of warrants	(260)	—
Adjustments to fair value for the period	(646)	875
Balance, December 31, 2013	\$ 8,215	\$ —
Exercises of warrants	(41,486)	—
Expiration of warrants	(3)	—
Adjustments to fair value for the period	35,260	—
Balance, December 31, 2014	\$ 1,986	\$ —
Exercises of warrants	(72)	—
Expiration of warrants	(527)	—
Adjustments to fair value for the period	(1,114)	—
Balance, December 31, 2015	\$ 273	\$ —

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

17. PARENT COMPANY FINANCIALS.

Pacific Ethanol, Inc.
Condensed Financial Information of the Registrant
Balance Sheets - Parent Company Only
(in thousands)

	December 31,	
	2015	2014
Cash and cash equivalents	\$ 20,618	\$ 23,915
Receivables from consolidated subsidiaries	14,505	8,547
Other current assets	11,361	8,647
Total current assets	46,484	41,109
Property and equipment, net	1,695	2,572
Investments in consolidated subsidiaries	301,416	154,134
Pacific Ethanol West plant term debt	41,763	41,763
Other assets	838	1,933
Total other assets	344,017	197,830
Total Assets	\$ 392,196	\$ 241,511
Accounts payable and accrued liabilities	\$ 1,963	\$ 2,347
Payables to consolidated subsidiaries	13,230	3,526
Accrued PE Op Co. purchase	3,828	-
Total current liabilities	19,021	5,873
Warrant liabilities at fair value	273	1,986
Deferred tax liabilities	1,174	15,434
Other liabilities	184	236
Total Liabilities	20,652	23,529
Preferred stock	1	1
Non-voting common stock	4	-
Common stock	39	25
Additional paid-in capital	902,843	725,813
Accumulated other comprehensive income	1,040	-
Accumulated deficit	(532,383)	(512,332)
Total Pacific Ethanol, Inc. stockholders' equity	371,544	213,507
Noncontrolling interests	-	4,475
Total stockholders' equity	371,544	217,982
Total Liabilities and Stockholders' Equity	\$ 392,196	\$ 241,511

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pacific Ethanol, Inc.
Condensed Financial Information of the Registrant
Statements of Operations - Parent Company Only
(in thousands)

	Years Ended December 31,		
	2015	2014	2013
Management fees from subsidiaries	\$ 9,857	\$ 12,731	\$ 9,837
Selling, general and administrative expenses	(14,336)	(12,779)	(10,188)
Asset impairments	(1,970)	-	-
Loss from operations	(6,449)	(48)	(351)
Fair value adjustments and warrant inducements	1,641	(37,532)	(1,013)
Interest income	5,739	4,753	5,088
Interest expense	(27)	(1,813)	(3,912)
Loss on extinguishments of debt	-	(2,363)	(9,481)
Income (loss) before provision for income taxes	904	(37,003)	(9,669)
Provision for income taxes	-	-	-
Income before equity earnings of subsidiaries	904	(37,003)	(9,669)
Equity earnings of consolidated subsidiaries	(19,690)	58,292	8,888
Consolidated net income (loss)	\$ (18,786)	\$ 21,289	\$ (781)

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pacific Ethanol, Inc.
Condensed Financial Information of the Registrant
Statements of Cash Flows - Parent Company Only
(in thousands)

	Years Ended December 31,		
	2015	2014	2013
Operating Activities:			
Net income (loss)	\$ (18,786)	\$ 21,289	\$ (781)
Adjustments to reconcile net income (loss) to cash used in operating activities:			
Equity Earnings	19,690	(58,292)	(8,888)
Depreciation and amortization	390	126	104
Fair value adjustments	(1,641)	35,260	(648)
Loss on extinguishments of debt	–	2,363	9,481
Asset impairments	1,970	–	–
Deferred income taxes	(14,260)	5,128	–
Amortization of debt discount	–	1,674	(179)
Changes in operating assets and liabilities:			
Accounts receivables	(5,958)	(7,001)	(495)
Other assets	5,895	(13,772)	828
AP and accruals	604	(587)	(1,358)
Accounts payable with subsidiaries	11,179	5,846	1,724
Net cash used in operating activities	<u>\$ (917)</u>	<u>\$ (7,966)</u>	<u>\$ (212)</u>
Investing Activities:			
Additions to property and equipment	\$ (1,483)	\$ (455)	\$ (72)
Purchase of PE OP Co. Ownership	–	(6,000)	(2,340)
Net cash used in Investing activities	<u>\$ (1,483)</u>	<u>\$ (6,455)</u>	<u>\$ (2,412)</u>
Financing Activities:			
Preferred stock Dividends	\$ (1,265)	\$ (3,459)	\$ (1,265)
Proceeds from Equity Raise	–	26,073	–
Proceeds from issuance of senior notes	–	–	22,192
Proceeds from issuance of convertible notes	–	–	14,000
Payment on related party Note	–	(750)	–
Payments on senior notes	–	(13,984)	(6,208)
Purchase of PE OP Co. debt	–	(17,038)	(27,088)
Proceeds from exercise of warrants	368	43,676	2,064
Net Cash (used in) provided by financing activities	<u>\$ (897)</u>	<u>\$ 34,518</u>	<u>\$ 3,695</u>
Net (decrease) increase in cash and equivalents	<u>(3,297)</u>	<u>20,097</u>	<u>1,071</u>
Cash and equivalents at beginning of period	<u>23,915</u>	<u>3,818</u>	<u>2,747</u>
Cash and equivalents at ending of period	<u>\$ 20,618</u>	<u>\$ 23,915</u>	<u>\$ 3,818</u>

Restricted Net Assets – At December 31, 2015, the Company had approximately \$164.0 million of net assets at its subsidiaries that were not available to be transferred to the Parent company in the form of dividends, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

PACIFIC ETHANOL, INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

18. SUBSEQUENT EVENT.

Pacific Ethanol West Plants' Term Debt Repayment – On February 26, 2016, the Company retired the \$17,003,000 outstanding balance of the Pacific Ethanol West Plants' term debt by purchasing the lender's position for cash at par without any prepayment penalty. This purchase increased the amount held by Pacific Ethanol to a combined \$58,766,000. As a result, the Company has no continuing obligations to any third-party lender under the credit agreements associated with this term debt.

19. QUARTERLY FINANCIAL DATA (UNAUDITED).

The Company's quarterly results of operations for the years ended December 31, 2015 and 2014 are as follows (in thousands). Certain of these calculations has been revised from the calculations previously reported to reflect the participating securities.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
December 31, 2015:				
Net sales	\$ 206,176	\$ 227,621	\$ 380,622	\$ 376,757
Gross profit (loss)	\$ (987)	\$ 6,254	\$ (7,380)	\$ 9,523
Income (loss) from operations	\$ (5,892)	\$ 2,261	\$ (14,826)	\$ 485
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ (4,380)	\$ 1,010	\$ (14,663)	\$ (753)
Preferred stock dividends	\$ (312)	\$ (315)	\$ (319)	\$ (319)
Income allocated to participating securities	\$ –	\$ (18)	\$ –	\$ –
Net income (loss) available to common stockholders	\$ (4,692)	\$ 677	\$ (14,982)	\$ (1,072)
Income (loss) per common share:				
Basic	\$ (0.19)	\$ 0.03	\$ (0.36)	\$ (0.03)
Diluted	\$ (0.19)	\$ 0.03	\$ (0.36)	\$ (0.03)

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
December 31, 2014:				
Net sales	\$ 254,543	\$ 321,144	\$ 275,573	\$ 256,152
Gross profit	\$ 38,545	\$ 33,576	\$ 17,986	\$ 18,378
Income from operations	\$ 34,875	\$ 29,261	\$ 13,594	\$ 13,647
Net income (loss) attributed to Pacific Ethanol, Inc.	\$ (10,826)	\$ 15,572	\$ 4,025	\$ 12,518
Preferred stock dividends	\$ (312)	\$ (315)	\$ (319)	\$ (319)
Income allocated to participating securities	\$ –	\$ (462)	\$ (100)	\$ (314)
Net income (loss) available to common stockholders	\$ (11,138)	\$ 14,795	\$ 3,606	\$ 11,885
Income (loss) per common share:				
Basic	\$ (0.69)	\$ 0.74	\$ 0.16	\$ 0.49
Diluted	\$ (0.69)	\$ 0.65	\$ 0.15	\$ 0.48

INDEX TO EXHIBITS

Exhibit Number	Description*	Where Located			
		Form	File Number	Exhibit Number	Filed Herewith
2.1	Form of Agreement for Purchase and Sale of Units in New PE Holdco LLC dated December 6, 2013 between the Registrant and each of CIFC Funding 2007-III Asset-V LLC and CIFC Funding 2007-IV Asset-IV LLC	10-K	000-21467	2.13	03/31/2014
2.2	Agreement for Purchase and Sale of Units in New PE Holdco LLC dated December 10, 2013 between the Registrant and Armory Fund L.P.	10-K	000-21467	2.14	03/31/2014
2.3	Form of Agreement for Purchase and Sale of Units in New PE Holdco LLC dated December 14, 2013 between the Registrant and each of Mariner Partners, L.P. and Dee River Holdings, Inc.	10-K	000-21467	2.15	03/31/2014
2.4	Agreement and Plan of Merger dated as of December 30, 2014 by and among Pacific Ethanol, Inc., AVR Merger Sub, Inc. and Aventine Renewable Energy Holdings, Inc.	8-K	000-21467	2.1	12/31/2014
2.5	Amendment No. 1 to Agreement and Plan of Merger dated as of March 31, 2015 by and among Pacific Ethanol, Inc., AVR Merger Sub, Inc. and Aventine Renewable Energy Holdings, Inc.	8-K	000-21467	2.1	04/02/2015
3.1	Certificate of Incorporation	10-Q	000-21467	3.1	11/06/2015
3.2	Certificate of Designations, Powers, Preferences and Rights of the Series A Cumulative Redeemable Convertible Preferred Stock	10-Q	000-21467	3.2	11/06/2015
3.3	Certificate of Designations, Powers, Preferences and Rights of the Series B Cumulative Convertible Preferred Stock	10-Q	000-21467	3.3	11/06/2015
3.4	Certificate of Amendment to Certificate of Incorporation dated June 3, 2010	10-Q	000-21467	3.4	11/06/2015
3.5	Certificate of Amendment to Certificate of Incorporation effective June 8, 2011	10-Q	000-21467	3.5	11/06/2015
3.6	Certificate of Amendment to Certificate of Incorporation effective May 14, 2013	10-Q	000-21467	3.6	11/06/2015
3.7	Certificate of Amendment to Certificate of Incorporation effective July 1, 2015	10-Q	000-21467	3.7	11/06/2015
3.8	Amended and Restated Bylaws	10-Q	000-21467	3.1	11/12/2014
10.1	2006 Stock Incentive Plan, as amended#	S-8	333-196876	4.1	06/18/2014
10.2	Form of Employee Restricted Stock Agreement#	8-K	000-21467	10.2	10/10/2006

Exhibit Number	Description*	Where Located				Filed Herewith
		Form	File Number	Exhibit Number	Filing Date	
10.3	Form of Non-Employee Director Restricted Stock Agreement#	8-K	000-21467	10.3	10/10/2006	
10.4	Amended and Restated Executive Employment Agreement dated December 11, 2007 between the Registrant and Neil M. Koehler#	8-K	000-21467	10.3	12/17/2007	
10.5	Amended and Restated Executive Employment Agreement dated December 11, 2007 between the Registrant and Christopher W. Wright#	8-K	000-21467	10.5	12/17/2007	
10.6	Amended and Restated Executive Employment Agreement dated November 25, 2009 between the Registrant and Bryon T. McGregor#	8-K	000-21467	10.1	11/27/2009	
10.7	Executive Employment Agreement dated January 6, 2013 between the Registrant and Michael D. Kandris#	8-K	000-21467	10.1	01/10/2013	
10.8	Amended and Restated Executive Employment Agreement dated October 1, 2012 between the Registrant and Paul P. Kohler#	10-K	000-21467	10.11	03/31/2014	
10.9	Employment Agreement dated November 12, 2012 between the Registrant and James R. Sneed#	10-K	000-21467	10.12	03/31/2014	
10.10	Pacific Ethanol, Inc. 2015 Short-Term Incentive Plan Description#				X	
10.11	Form of Indemnity Agreement between the Registrant and each of its Executive Officers and Directors#	10-K	000-21467	10.46	03/31/2010	
10.12	Warrant dated March 27, 2008 issued by the Registrant to Lyles United, LLC	8-K	000-21467	10.3	03/27/2008	
10.13	Registration Rights Agreement dated March 27, 2008 between the Registrant and Lyles United, LLC	8-K	000-21467	10.4	03/27/2008	
10.14	Letter Agreement dated March 27, 2008 between the Registrant and Lyles United, LLC	8-K	000-21467	10.5	03/27/2008	
10.15	Letter Agreement dated May 22, 2008 among the Registrant, Neil M. Koehler, Bill Jones, Paul P. Koehler and Thomas D. Koehler#	8-K	000-21467	10.3	05/23/2008	
10.16	Form of Warrant dated May 23, 2008 issued by the Registrant	8-K	000-21467	10.2	05/23/2008	

Exhibit Number	Description*	Where Located				Filed Herewith
		Form	File Number	Exhibit Number	Filing Date	
10.17	Amended and Restated Loan and Security Agreement dated May 4, 2012 among Kinergy Marketing LLC, Pacific Ag. Products, LLC, the parties thereto from time to time as Lenders, Wells Fargo Bank, National Association and Wells Fargo Capital Finance, LLC	8-K	000-21467	10.1	05/08/2012	
10.18	Amendment No. 1 to Amended and Restated Loan and Security Agreement dated December 4, 2013 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC	8-K	000-21467	10.3	07/06/2015	
10.19	Amendment No. 2 to Amended and Restated Loan and Security Agreement dated December 29, 2014 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC	8-K	000-21467	10.2	07/06/2015	
10.20	Amendment No. 3 to Amended and Restated Loan and Security Agreement dated July 1, 2015 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC	8-K	000-21467	10.1	07/06/2015	
10.21	Amendment No. 4 to Amended and Restated Loan and Security Agreement dated December 11, 2015 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC					X
10.22	Amendment No. 5 to Amended and Restated Loan and Security Agreement dated December 28, 2015 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC					X
10.23	Amended and Restated Guarantee dated May 4, 2012 by the Registrant in favor of Wells Fargo Capital Finance, LLC for and on behalf of Lenders	8-K	000-21467	10.2	05/08/2012	
10.24	Form of Warrants dated December 13, 2011 issued by the Registrant	8-K/A	000-21467	10.2	12/12/2011	
10.25	Form of Series I Warrants issued by the Registrant on July 3, 2012	8-K	000-21467	10.1	06/28/2012	

Exhibit Number	Description*	Where Located				Filed Herewith
		Form	File Number	Exhibit Number	Filing Date	
10.26	Second Amended and Restated Credit Agreement dated October 29, 2012 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, the Lenders referred to therein, Wells Fargo Bank, N.A. and Amarillo National Bank	10-Q	000-21467	10.6	11/14/2012	
10.27	First Amendment to Second Amended and Restated Credit Agreement dated January 4, 2013 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein	S-1	333-189713	10.44	06/28/2013	
10.28	Second Amendment to Second Amended and Restated Credit Agreement dated March 28, 2013 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein					X
10.29	Third Amendment to Second Amended and Restated Credit Agreement dated April 1, 2014 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein	8-K	000-21467	10.2	04/01/2014	
10.30	Fourth Amendment to Second Amended and Restated Credit Agreement dated January 30, 2016 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, PE Op Co., the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein					X

Exhibit Number	Description*	Where Located				Filed Herewith
		Form	File Number	Exhibit Number	Filing Date	
10.31	Fifth Amendment to Second Amended and Restated Credit Agreement dated February 26, 2016 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia, LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, PE Op Co., the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein					X
10.32	Lender Assignment Agreement dated June 9, 2014 between Pacific Ethanol, Inc. and CWD OC 522 Master Fund, Ltd.	8-K	000-21467	10.1	06/10/2014	
10.33	Lender Assignment Agreement dated June 9, 2014 between Pacific Ethanol, Inc. and Candlewood Special Situations Master Fund, Ltd.	8-K	000-21467	10.2	06/10/2014	
10.34	Agreement for Purchase and Sale of Loans and Assignment of Commitment dated June 9, 2014 between Pacific Ethanol, Inc. and Candlewood Credit Value Master Fund II, L.P.	8-K	000-21467	10.3	06/10/2014	
10.35	Letter Agreement dated May 23, 2014 among the Registrant and the holders of the Registrant's Series B Cumulative Convertible Preferred Stock	8-K	000-21467	10.1	05/28/2014	
10.36	Stockholders Agreement dated December 30, 2014 between Pacific Ethanol, Inc. and the parties identified therein	8-K	000-21467	10.1	12/31/2014	
10.37	Stockholders Agreement dated December 30, 2014 between Pacific Ethanol, Inc. and Credit Suisse Securities (USA) LLC	8-K	000-21467	10.2	12/31/2014	
10.38	Amended and Restated Senior Secured Term Loan Credit Agreement dated September 24, 2012 among Aventine Renewable Energy Holdings, Inc., the lenders from time to time party thereto, and Citibank, N.A.	S-4	333-201879	10.1	02/04/2015	
10.39	Incremental Amendment dated June 18, 2013 among Aventine Renewable Energy Holdings, Inc., the lenders identified therein, and Citibank, N.A.	S-4	333-201879	10.2	02/04/2015	

Exhibit Number	Description*	Where Located			Filed Herewith
		Form	File Number	Exhibit Number	
10.40	Loan and Security Agreement dated September 17, 2014 among Aventine Renewable Energy, Inc., the lenders from time to time party thereto, Midcap Financial, LLC and Alostair Bank of Commerce	S-4	333-201879	10.3	02/04/2015
14.1	Code of Ethics	8-K	000-21467	14.1	07/06/2015
21.1	Subsidiaries of the Registrant				X
23.1	Consent of Independent Registered Public Accounting Firm				X
23.2	Consent of Independent Registered Public Accounting Firm				X
31.1	Certification Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
31.2	Certification Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002				X
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002				X
101.INS	XBRL Instance Document				X
101.SCH	XBRL Taxonomy Extension Schema				X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase				X
101.DEF	XBRL Taxonomy Extension Definition Linkbase				X
101.LAB	XBRL Taxonomy Extension Label Linkbase				X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase				X

(#) A contract, compensatory plan or arrangement to which a director or executive officer is a party or in which one or more directors or executive officers are eligible to participate.

(*) Certain of the agreements filed as exhibits contain representations and warranties made by the parties thereto. The assertions embodied in such representations and warranties are not necessarily assertions of fact, but a mechanism for the parties to allocate risk. Accordingly, investors should not rely on the representations and warranties as characterizations of the actual state of facts or for any other purpose at the time they were made or otherwise.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized on this 15th day of March, 2016.

PACIFIC ETHANOL, INC.

By: /s/ NEIL M. KOEHLER

Neil M. Koehler
President and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ WILLIAM L. JONES</u> William L. Jones	Chairman of the Board and Director	March 15, 2016
<u>/s/ NEIL M. KOEHLER</u> Neil M. Koehler	President, Chief Executive Officer (Principal Executive Officer) and Director	March 15, 2016
<u>/s/ BRYON T. MCGREGOR</u> Bryon T. McGregor	Chief Financial Officer (Principal Financial and Accounting Officer)	March 15, 2016
<u>/s/ MICHAEL D. KANDRIS</u> Michael D. Kandris	Chief Operating Officer and Director	March 15, 2016
<u>/s/ TERRY L. STONE</u> Terry L. Stone	Director	March 15, 2016
<u>/s/ JOHN L. PRINCE</u> John L. Prince	Director	March 15, 2016
<u>/s/ DOUGLAS L. KIETA</u> Douglas L. Kieta	Director	March 15, 2016
<u>/s/ LARRY D. LAYNE</u> Larry D. Layne	Director	March 15, 2016

EXHIBITS FILED WITH THIS REPORT

Exhibit Number	Description
10.10	Pacific Ethanol, Inc. 2015 Short-Term Incentive Plan Description
10.21	Amendment No. 4 to Amended and Restated Loan and Security Agreement dated December 11, 2015 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC
10.22	Amendment No. 5 to Amended and Restated Loan and Security Agreement dated December 28, 2015 among Kinergy Marketing LLC, Pacific Ag. Products, LLC and Wells Fargo Capital Finance, LLC
10.28	Second Amendment to Second Amended and Restated Credit Agreement dated March 28, 2013 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein
10.30	Fourth Amendment to Second Amended and Restated Credit Agreement dated January 30, 2016 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, PE Op Co., the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein
10.31	Fifth Amendment to Second Amended and Restated Credit Agreement dated February 26, 2016 among Pacific Ethanol Holding Co. LLC, Pacific Ethanol Madera LLC, Pacific Ethanol Columbia , LLC, Pacific Ethanol Stockton LLC, Pacific Ethanol Magic Valley, LLC, PE Op Co., the Lenders referred to therein, Wells Fargo Bank, N.A. and the other parties identified therein
21.1	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Independent Registered Public Accounting Firm
31.1	Certification Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification Required by Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase

(*) Certain of the agreements filed as exhibits contain representations and warranties made by the parties thereto. The assertions embodied in such representations and warranties are not necessarily assertions of fact, but a mechanism for the parties to allocate risk. Accordingly, investors should not rely on the representations and warranties as characterizations of the actual state of facts or for any other purpose at the time they were made or otherwise.

Exhibit 10.10

Pacific Ethanol, Inc. 2015 Short-Term Incentive Plan (“Plan”) Description

- **Effective Date:** The Plan was adopted by the compensation committee (the “Compensation Committee”) of the board of directors of Pacific Ethanol, Inc. (the “Company”) on April 14, 2015.
- **Participants:** The Company’s Chief Executive Officer, Chief Financial Officer, Chief Operating Officer, General Counsel, Vice President of Commodities and Corporate Development and Vice President of Ethanol Supply and Marketing, (“Executive Officers”), and other officer, director and manager-level personnel will be eligible to participate in the Plan.
- **Aggregate Plan Pool:** The dollar amount of the aggregate Plan pool will be established by the Compensation Committee.
- **Awards:** Awards under the Plan for Executive Officers will be determined by the Compensation Committee. Awards under the Plan for other officer, director and manager-level personnel will be determined by the Company’s executive committee, within the limits of the Plan pool approved by the Compensation Committee.
- **Individual Targets:** The Plan payout targets for Executive Officers will be determined by the Compensation Committee. The Plan payout targets for other officer, director and manager-level personnel will be set as a percentage of a participant’s base salary in accordance with compensation policies established by the Company’s executive committee or a participant’s employment agreement with the Company.
- **Award Components:** Awards under the Plan will be based on three elements: financial performance, departmental performance and individual performance. Company financial performance will be an element in all participants’ awards. One or both of the departmental performance and individual performance elements will also apply. Each element will be assigned a weighting based upon a participant’s role in the Company.
 - o The financial performance element will be based on an earnings before interest, taxes, debt extinguishments, fair value adjustments, warrant inducements and depreciation and amortization (“Adjusted EBITDA”) goal established by the Compensation Committee. The financial performance element is non-discretionary and will be funded at a rate of 0% to 175% of the participant’s targeted payout amount for the element based on the level of actual Adjusted EBITDA compared to the Adjusted EBITDA goal.
 - o The departmental performance element will be based on quantitative criteria and subjective elements established by the Company’s executive committee. The extent to which a department will be deemed to have achieved its performance goals will be determined by the Company’s executive committee in consultation with the Compensation Committee. The departmental element is discretionary and will be funded at a rate of 0% to 100% of the participant’s targeted payout amount for the element.
 - o The individual performance element will be based on individual participant goals based on quantitative criteria and subjective elements established by each participant’s supervisor, in consultation with the Company’s executive committee. The extent to which a participant will be deemed to have achieved his or her individual performance goals will be determined by the Company’s executive committee in consultation with the participant’s supervisor; provided, however, that the extent to which a participant who is an Executive Officer will be deemed to have achieved his or her individual performance goals will be recommended by the Company’s Chief Executive Officer but ultimately determined by the Compensation Committee. The individual performance element is discretionary and will be funded at a rate of 0% to 100% of the participant’s targeted payout amount for the element.

**AMENDMENT NO. 4
TO
AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT**

This AMENDMENT NO. 4 TO AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT (this “**Amendment**”) is entered into as of December 11, 2015, by and among WELLS FARGO CAPITAL FINANCE, LLC, in its capacity as agent (in such capacity, “**Agent**”) for the Lenders (as defined in the Loan Agreement referred to below), KINERGY MARKETING LLC (“**Kinergy**”), and PACIFIC AG. PRODUCTS, LLC (“**Pacific Ag**” and together with Kinergy, each individually, a “**Borrower**” and collectively, the “**Borrowers**”).

WHEREAS, Borrowers, Agent and Lenders have entered into certain financing arrangements as set forth in (a) the Amended and Restated Loan and Security Agreement, dated as of May 4, 2012, by and among Agent, Lenders and Borrowers (as amended, restated, renewed, extended, supplemented, substituted and otherwise modified from time to time, the “**Loan Agreement**”) and (b) the Financing Agreements (as defined in the Loan Agreement); and

WHEREAS, Borrowers have advised Agent that Pacific AG desires to enter into Marketing Agreements (as defined in the Loan Agreement) with certain of the Aventine Affiliates, each substantially in the form of Exhibit A attached hereto (the “**Pacific AG Marketing Agreements**”);

WHEREAS, Borrowers have advised Agent that Borrowers and Parent desire to replace the Intercompany Operating Agreement (as defined in the Loan Agreement) with a certain Affiliated Company Agreement, effective as of July 1, 2015, among Borrowers and Parent, substantially in the form of Exhibit B attached hereto (the “**Affiliated Company Agreement**”);

WHEREAS, Borrowers, Agent and Lenders have agreed to amend and modify certain provisions of Loan Agreement, subject to the terms and conditions of this Amendment.

NOW, THEREFORE, upon the mutual agreements and covenants set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Definitions.

(a) Additional Definitions. The Loan Agreement is hereby amended to add the following new definition thereto:

““Amendment No. 4” shall mean Amendment No. 4 to Amended and Restated Loan and Security Agreement, dated as of December 11, 2015.”

““Affiliated Company Agreement” shall mean that certain Affiliated Company Agreement, effective as of July 1, 2015, by and among the Borrowers party thereto, certain of the Aventine Affiliates, and Parent pursuant to which Parent will provide certain services to Borrowers as more particularly set forth therein, as amended, restated, modified or supplemented from time to time.”

(b) Interpretation. Capitalized terms used and not defined in this Amendment shall have the respective meanings given them in the Loan Agreement.

2. Consent. To the extent their consent may be necessary or required under the Loan Agreement or the other Financing Agreement, Agent and Lenders hereby consent to the consummation of the transactions contemplated by the Pacific AG Marketing Agreements and the Affiliated Company Agreement.

3. Amendments.

(a) Intercompany Operating Agreement. Section 1.66 of the Loan Agreement is hereby deleted in its entirety and the following substituted therefor:

“1.66 [Reserved].”

(b) Affiliated Company Agreement. Each Section of the Loan Agreement and the other Financing Documents in which the term “Intercompany Operating Agreement” appears, including, without limitation, Sections 1.106 (Receivables), 9.12(b) (Transactions With Affiliates), and 10.1(n) (Events of Default) of the Loan Agreement, is hereby amended to delete the reference to “Intercompany Operating Agreement” appearing therein and substitute “Affiliate Company Agreement” in lieu thereof.

(c) Marketing Agreements. The definition of “Marketing Agreements” set forth in the Loan Agreement is hereby deleted in its entirety and the following substituted therefor:

““Marketing Agreements” shall mean each of (i) the Ethanol Marketing Agreements, dated on or about the date of Amendment No. 3 and (ii) the Co-Product Marketing Agreements, dated on or about the date of Amendment No. 4, by and among one or more Borrowers and one or more Aventine Affiliates, as amended, and such other marketing agreements that may be approved by Agent from time to time in its reasonable discretion.”

4. Additional Representation. In addition to the continuing representations, warranties and covenants at any time made by Borrowers to Agent and Lenders pursuant to the Loan Agreement and the other Financing Agreements, Borrowers hereby jointly and severally represent, warrant and covenant with and to Agent and Lenders that as of the date of this Amendment and after giving effect hereto, no Default or Event of Default exists or has occurred and is continuing.

5. Release. In consideration of the agreements of Agent and Lenders contained herein and the making of loans by or on behalf of Agent and Lenders to Borrowers pursuant to the Loan Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Borrower and Parent on behalf of itself and its successors, assigns, and other legal representatives, hereby, jointly and severally, absolutely, unconditionally and irrevocably releases, remises and forever discharges Agent and each Lender, and their present and former shareholders, affiliates, subsidiaries, divisions, predecessors, directors, officers, attorneys, employees, agents and other representatives and their respective successors and assigns (Agent, each Lender and all such other parties being hereinafter referred to collectively as the “**Releasees**” and individually as a “**Releasee**”), of and from all demands, actions, causes of action, suits, covenants, contracts, controversies, agreements, promises, sums of money, accounts, bills, reckonings, damages and any and all other claims, counterclaims, defenses, rights of set-off, demands and liabilities whatsoever (individually, a “**Claim**” and collectively, “**Claims**”) of every name and nature, known or unknown, suspected or unsuspected, both at law and in equity, whether liquidated or unliquidated, matured or unmatured, asserted or unasserted, fixed or contingent, foreseen or unforeseen and anticipated or unanticipated, which any Borrower or Parent, or any of its successors, assigns, or other legal representatives and its successors and assigns may now or hereafter own, hold, have or claim to have against the Releasees or any of them for, upon, or by reason of any nature, cause or thing whatsoever which arises at any time on or prior to the day and date of this Agreement, in relation to, or in any way in connection with the Loan Agreement, as amended and supplemented through the date hereof, this Agreement and the other Financing Agreements. Each Borrower and Parent understands, acknowledges and agrees that the release set forth above may be pleaded as a full and complete defense and may be used as a basis for an injunction against any action, suit or other proceeding which may be instituted, prosecuted or attempted in breach of the provisions of such release.

6. Conditions to Effectiveness. The effectiveness of this Amendment shall be subject to the receipt by Agent of:

(a) an original (or electronic copy) of this Amendment duly authorized, executed and delivered by Borrowers and Lenders;

(b) an original (or electronic copy) of a letter agreement re: Consent to Co-Product Marketing Agreements and Release of Lien on Purchased Assets, duly authorized, executed and delivered by Citibank, N.A., in its capacity as Agent under the Aventine Term Loan Agreement, and Pacific Ethanol Central, LLC (f/k/a Aventine Renewal Energy Holdings, Inc.); and

(c) an original (or electronic copy) of the Affiliated Company Agreement, duly authorized, executed and delivered by Parent and Borrowers.

7. Effect of this Amendment. Except as modified pursuant hereto, no other changes or modifications to the Loan Agreement or the other Financing Agreements are intended or implied and in all other respects the Loan Agreement and other Financing Agreements are hereby specifically ratified, restated and confirmed by all parties hereto as of the date hereof. To the extent of conflict between the terms of this Amendment, on the one hand, and Loan Agreement or the other Financing Agreements, on the other hand, the terms of this Amendment shall control.

8. Further Assurances. Borrowers shall execute and deliver such additional documents and take such additional action as may be reasonably requested by Agent to effectuate the provisions and purposes of this Amendment.

9. Binding Effect. This Amendment shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

10. Governing Law. The rights and obligations hereunder of each of the parties hereto shall be governed by and interpreted and determined in accordance with the internal laws of the State of California (without giving effect to principles of conflict of laws).

11. Counterparts. This Amendment may be signed in counterparts, each of which shall be an original and all of which taken together constitute one agreement. In making proof of this Amendment, it shall not be necessary to produce or account for more than one counterpart signed by the party to be charged. Delivery of an executed counterpart of this Amendment electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered by their authorized officers as of the day and year first above written,

BORROWERS:

KINERGY MARKETING LLC,
as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC AG PRODUCTS, LLC,
as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Financial Officer

ACKNOWLEDGED AND AGREED:

PACIFIC ETHANOL, INC.,
as Parent

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Financial Officer

AGENT AND LENDER

WELLS FARGO CAPITAL FINANCE, LLC,
as Agent and sole Lender

By: /s/ Carlos Valles
Name: Carlos Valles
Title: Vice President

**AMENDMENT NO. 5
TO
AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT**

This AMENDMENT NO. 5 TO AMENDED AND RESTATED LOAN AND SECURITY AGREEMENT (this “**Amendment**”) is entered into as of December 28, 2015, by and among WELLS FARGO CAPITAL FINANCE, LLC, in its capacity as agent (in such capacity, “**Agent**”) for the Lenders (as defined in the Loan Agreement referred to below), KINERGY MARKETING LLC (“**Kinergy**”), and PACIFIC AG. PRODUCTS, LLC (“**Pacific Ag**” and together with Kinergy, each individually, a “**Borrower**” and collectively, the “**Borrowers**”).

WHEREAS, Borrowers, Agent and Lenders have entered into certain financing arrangements as set forth in (a) the Amended and Restated Loan and Security Agreement, dated as of May 4, 2012, by and among Agent, Lenders and Borrowers (as amended, restated, renewed, extended, supplemented, substituted and otherwise modified from time to time, the “**Loan Agreement**”) and (b) the Financing Agreements (as defined in the Loan Agreement); and

WHEREAS, Borrowers, Agent and Lenders have agreed to amend and modify certain provisions of Loan Agreement, subject to the terms and conditions of this Amendment.

NOW, THEREFORE, upon the mutual agreements and covenants set forth herein and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto agree as follows:

1. Interpretation. Capitalized terms used and not defined in this Amendment shall have the respective meanings given them in the Loan Agreement.

2. Amendments.

(a) Fixed Charge Coverage Ratio. The proviso appearing at the end of Section 9.17(b) of the Loan Agreement is hereby deleted in its entirety and the following substituted therefor:

“; provided, that, this Section 9.17(b) shall not apply to any month for which the Excess Availability was at all times during such month, and at all times during each of the two (2) prior months, greater than twenty percent (20%) of the Maximum Credit, except, that, the foregoing test metric shall be based on Liquidity and not Excess Availability during any consecutive five (5) Business Day period that includes the last Business Day of a fiscal quarter (not to exceed five (5) total Business Days for any quarter end).”

3. Additional Representation. In addition to the continuing representations, warranties and covenants at any time made by Borrowers to Agent and Lenders pursuant to the Loan Agreement and the other Financing Agreements, Borrowers hereby jointly and severally represent, warrant and covenant with and to Agent and Lenders that as of the date of this Amendment and after giving effect hereto, no Default or Event of Default exists or has occurred and is continuing.

4. Release. In consideration of the agreements of Agent and Lenders contained herein and the making of loans by or on behalf of Agent and Lenders to Borrowers pursuant to the Loan Agreement, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, each Borrower and Parent on behalf of itself and its successors, assigns, and other legal representatives, hereby, jointly and severally, absolutely, unconditionally and irrevocably releases, remises and forever discharges Agent and each Lender, and their present and former shareholders, affiliates, subsidiaries, divisions, predecessors, directors, officers, attorneys, employees, agents and other representatives and their respective successors and assigns (Agent, each Lender and all such other parties being hereinafter referred to collectively as the “**Releasees**” and individually as a “**Releasee**”), of and from all demands, actions, causes of action, suits, covenants, contracts, controversies, agreements, promises, sums of money, accounts, bills, reckonings, damages and any and all other claims, counterclaims, defenses, rights of set-off, demands and liabilities whatsoever (individually, a “**Claim**” and collectively, “**Claims**”) of every name and nature, known or unknown, suspected or unsuspected, both at law and in equity, whether liquidated or unliquidated, matured or unmatured, asserted or unasserted, fixed or contingent, foreseen or unforeseen and anticipated or unanticipated, which any Borrower or Parent, or any of its successors, assigns, or other legal representatives and its successors and assigns may now or hereafter own, hold, have or claim to have against the Releasees or any of them for, upon, or by reason of any nature, cause or thing whatsoever which arises at any time on or prior to the day and date of this Agreement, in relation to, or in any way in connection with the Loan Agreement, as amended and supplemented through the date hereof, this Agreement and the other Financing Agreements. Each Borrower and Parent understands, acknowledges and agrees that the release set forth above may be pleaded as a full and complete defense and may be used as a basis for an injunction against any action, suit or other proceeding which may be instituted, prosecuted or attempted in breach of the provisions of such release.

5. Conditions to Effectiveness. The effectiveness of this Amendment shall be subject to the receipt by Agent of an original (or electronic copy) of this Amendment duly authorized, executed and delivered by Borrowers and Lenders.

6. Effect of this Amendment. Except as modified pursuant hereto, no other changes or modifications to the Loan Agreement or the other Financing Agreements are intended or implied and in all other respects the Loan Agreement and other Financing Agreements are hereby specifically ratified, restated and confirmed by all parties hereto as of the date hereof. To the extent of conflict between the terms of this Amendment, on the one hand, and Loan Agreement or the other Financing Agreements, on the other hand, the terms of this Amendment shall control.

7. Further Assurances. Borrowers shall execute and deliver such additional documents and take such additional action as may be reasonably requested by Agent to effectuate the provisions and purposes of this Amendment.

8. Binding Effect. This Amendment shall be binding upon and inure to the benefit of each of the parties hereto and their respective successors and assigns.

9. Governing Law. The rights and obligations hereunder of each of the parties hereto shall be governed by and interpreted and determined in accordance with the internal laws of the State of California (without giving effect to principles of conflict of laws).

10. Counterparts. This Amendment may be signed in counterparts, each of which shall be an original and all of which taken together constitute one agreement. In making proof of this Amendment, it shall not be necessary to produce or account for more than one counterpart signed by the party to be charged. Delivery of an executed counterpart of this Amendment electronically or by facsimile shall be effective as delivery of an original executed counterpart of this Amendment.

[REMAINDER OF PAGE INTENTIONALLY LEFT BLANK]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered by their authorized officers as of the day and year first above written.

BORROWERS:

KINERGY MARKETING LLC,
as a Borrower

By: /s/ MIKE KRAMER
Name: Mike Kramer
Title: VP/Treasurer

PACIFIC AG. PRODUCTS, LLC,
as a Borrower

By: /s/ MIKE KRAMER
Name: Mike Kramer
Title: VP/Treasurer

ACKNOWLEDGED AND AGREED:

PACIFIC ETHANOL, INC,
as Parent

By: /s/ MIKE KRAMER
Name: Mike Kramer
Title: VP/Treasurer

AGENT AND LENDER:

WELLS FARGO CAPITAL FINANCE, LLC,
as Agent and sole Lender

By: /s/ CARLOS VALLES
Name: Carlos Valles
Title: Vice President

**SECOND AMENDMENT TO SECOND AMENDED AND RESTATED
CREDIT AGREEMENT**

This SECOND AMENDMENT TO SECOND AMENDED AND RESTATED CREDIT AGREEMENT (this "Amendment"), dated as of March 28, 2013, is entered into by and among PACIFIC ETHANOL HOLDING CO. LLC, a Delaware limited liability company ("Pacific Holding"), PACIFIC ETHANOL MADERA LLC, a Delaware limited liability company ("Madera"), PACIFIC ETHANOL COLUMBIA, LLC, a Delaware limited liability company ("Boardman"), PACIFIC ETHANOL STOCKTON LLC, a Delaware limited liability company ("Stockton"), and PACIFIC ETHANOL MAGIC VALLEY, LLC, a Delaware limited liability company ("Burley" and, together with Pacific Holding, Madera, Boardman and Stockton, the "Borrowers"), Pacific Holding, as Borrowers' Agent, NEW PE HOLDCO LLC, a Delaware limited liability company, as Pledgor (the "Pledgor"), each of the Lenders whose signatures appear on the signature pages to this Amendment (individually, each a "Consenting Lender" and collectively, the "Consenting Lenders"), WELLS FARGO BANK, N.A., as administrative agent for the Lenders ("Administrative Agent"), WELLS FARGO BANK, N.A., as collateral agent for the Senior Secured Parties ("Collateral Agent") and AMARILLO NATIONAL BANK, as accounts bank ("Accounts Bank"). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Credit Agreement (as hereinafter defined).

RECITALS

WHEREAS, Borrowers, Borrowers' Agent, the Pledgor, the Lenders party thereto, Administrative Agent, Collateral Agent and Accounts Bank entered into that certain Second Amended and Restated Credit Agreement dated as of October 29, 2012 (as amended by the First Amendment to Second Amended and Restated Credit Agreement dated as of January 4, 2013, the "Credit Agreement");

WHEREAS, Borrowers and Borrowers' Agent have requested, and the Required Lenders have agreed to, certain amendments to the Credit Agreement upon the terms and subject to the conditions set forth herein in order to, among other things, include Tranche A-2 Loans held by Cooperatieve Centrale Raiffeisen-Boerenleenbank B.A., "Rabobank Nederland", New York Branch ("Rabobank") as "Designated Tranche A-2 Term Loans" in order that the Maturity Date thereof is June 30, 2016;

NOW, THEREFORE, the parties hereto agree that upon the occurrence of the Amendment Effective Date (as hereinafter defined), the Credit Agreement is hereby amended as follows:

SECTION 1. Amendments to Credit Agreement. The Credit Agreement is hereby amended as of the Amendment Effective Date as follows:

1.1. Section 11.03(j)(iv) of the Credit Agreement is hereby deleted in its entirety and replaced with the following:

(iv) notwithstanding any provision of this Agreement to the contrary, following (A) the purchase of any Loan or Commitment by an Affiliated Lender and (B) the payment and performance in full of all obligations under all PEI Notes, such Affiliated Lender may (but, except as otherwise provided in the foregoing clause (iii), shall not be obligated to) cancel such Loan and/or terminate such Commitment via contribution to the capital of one or more Borrowers or otherwise and such Loans and/or Commitments shall be deemed to be no longer outstanding or available under any provision of the Financing Documents.

- 1.2. The following new defined terms are hereby added to Exhibit A of the Credit Agreement in the appropriate alphabetical order as follows:

"PEI Junior Unsecured Notes" means those certain unsecured notes to be issued by Pacific Ethanol pursuant to the Securities Purchase Agreement dated as of March 28, 2013 by and among Pacific Ethanol and the investors party thereto.

"PEI Notes" means, collectively, the PEI Senior Unsecured Notes and the PEI Junior Unsecured Notes.

- 1.3. The following defined term is hereby deleted and replaced with the following:

"Designated Tranche A-2 Lender" means (a) Candlewood Special Situations Master Fund, Ltd., CWD OC 522 Master Fund Ltd. and Credit Suisse Loan Funding LLC, (b) Cooperatieve Centrale RaiffeisenBoerenleenbank B.A., "Rabobank Nederland", New York Branch, (c) any Affiliated Lender or (d) any assignee of any Lender described in the foregoing clauses (a), (b) and (c).

SECTION 2. Payment of Costs and Fees. Each Borrower (i) reaffirms its obligations under Section 11.07 of the Credit Agreement and (ii) without limiting the provisions set forth in Section 11.07 of the Credit Agreement, acknowledges, consents and agrees that it shall promptly pay, upon receipt of invoices therefor, to the Administrative Agent and each Consenting Lender all reasonable out-of-pocket costs, fees, expenses and charges of every kind in connection with the preparation, negotiation, execution and delivery of this Amendment incurred by or on behalf of such Persons, including, without limitation, the reasonable fees and disbursements of Sidley Austin LLP, counsel to certain Consenting Lenders.

SECTION 3. Acknowledgements.

- 3.1. Reaffirmation of Obligations. Each Loan Party hereby (a) reaffirms, acknowledges, confirms and agrees to its respective guarantees, pledges and grants of security interests and other commitments and Obligations under the Financing Documents and (b) confirms and agrees that the Financing Documents and all guarantees, pledges and grants of security interests and other commitments and Obligations thereunder shall continue to be in full force and effect following the effectiveness of this Amendment. All Obligations under the Credit Agreement and the other Financing Documents owing by the Loan Parties to the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender, as the case may be, are unconditionally owing by the Loan Parties to the Administrative Agent, the Collateral Agent and each Lender, as the case may be, without offset, defense or counterclaim of any kind, nature or description whatsoever.

- 3.2. Acknowledgement of Security Interests. Each Loan Party hereby acknowledges, confirms and agrees that the Collateral Agent, for itself and the benefit of Senior Secured Parties, has and shall continue to have valid, enforceable and perfected first-priority liens (subject only to Permitted Liens) upon and security interests in the Collateral granted to the Collateral Agent, for itself and the benefit of Senior Secured Parties, pursuant to the Financing Documents.
- 3.3. Binding Effect of Documents. Each Loan Party hereby acknowledges, confirms and agrees that: (i) each of the Financing Documents to which it is a party has been duly executed and delivered to the Administrative Agent, the Collateral Agent, the Accounts Bank and the Lenders thereto by it, and each is in full force and effect as of the Amendment Effective Date, (ii) the agreements and obligations of such Loan Party contained in the Credit Agreement as amended by this Amendment (the "Amended Credit Agreement"), in each of the other Financing Documents and in this Amendment constitute the legal, valid and binding obligations of such Loan Party, enforceable against such Loan Party in accordance with their respective terms, and such Loan Party has no valid defense to the enforcement of the obligations under the Amended Credit Agreement or the other Financing Documents, except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and (iii) the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender are and shall be entitled to the rights, remedies and benefits provided for in the Financing Documents and under applicable law or at equity.

SECTION 4. Representations and Warranties of Loan Parties. Each of the Loan Parties hereby represents and warrants in favor of the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender as follows:

- 4.1. The execution, delivery and performance by such Loan Party of this Amendment and the performance of the Amended Credit Agreement are within such Loan Party's powers and have been duly authorized by all necessary action on the part of such Loan Party.

- 4.2. This Amendment has been duly executed and delivered by such Loan Party and each of this Amendment, the Amended Credit Agreement and the other Financing Documents constitutes a legal, valid and binding obligation of such Loan Party enforceable in accordance with its terms except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).
- 4.3. The execution, delivery or performance of this Amendment by such Loan Party (i) does not require any consent or approval of, registration of filing with, or any other action by, any Person (including, without limitation, any Governmental Authority) except (A) such as have been obtained or made and are in full force and effect and (B) filings necessary to perfect Liens created by the Financing Documents, (ii) will not violate the organizational or governing documents of any Loan Party and (iii) will not violate any applicable Law or any Contractual Obligation applicable to or binding upon such Loan Party or any of their respective properties or assets.
- 4.4. No event has occurred or is continuing, that would constitute a Default or an Event of Default under the Credit Agreement, the Amended Credit Agreement or any other Financing Document.
- 4.5. As of the Amendment Effective Date, no litigation by, investigation known to such Loan Party by, or proceeding of, any Governmental Authority is pending or, to the knowledge of such Loan Party, has been threatened against such Loan Party which (i) challenges such Loan Party's right, power, or competence to enter into this Amendment or perform any of its obligations under this Amendment, the Amended Credit Agreement or any other the Financing Documents or the validity or enforceability of this Amendment, the Amended Credit Agreement or any other Financing Document or any action taken under this Amendment, the Amended Credit Agreement or any other Financing Document or (ii) is reasonably likely, if adversely decided, to have a Material Adverse Effect.
- 4.6. After giving effect to this Amendment, the representations and warranties of such Loan Party contained in the Amended Credit Agreement and the other Financing Documents are true and correct in all material respects (provided, that if any representation or warranty is by its terms qualified by concepts of materiality, such representation shall be true and correct in all respects) on and as of the Amendment Effective Date with the same effect as if such representations and warranties had been made on and as of such date, except that any such representation or warranty which is expressly made only as of a specified date need be true only as of such date.

SECTION 5. Conditions to Effectiveness of this Amendment. This Amendment shall become effective as of the first date on or prior to March 28, 2013 on which each of the following conditions has been satisfied (or waived in writing by the Required Lenders) (the "Amendment Effective Date"):

- 5.1. Amendment. The Administrative Agent shall have received duly executed counterparts of this Amendment from each Loan Party, the Required Lenders, the Collateral Agent, the Administrative Agent and the Accounts Bank.
- 5.2. Costs and Expenses. The Borrowers shall have paid all fees, costs and expenses incurred in connection with this Amendment and any other Financing Documents that have been invoiced and are required to be paid hereunder or under the Credit Agreement (including, without limitation, reasonable legal fees and expenses of the Administrative Agent and each Consenting Lender).
- 5.3. Representations and Warranties. The representations and warranties made or deemed made by the Loan Parties under this Amendment shall be true and correct (subject to the materiality qualifiers set forth in such representations and warranties) as of the Amendment Effective Date.
- 5.4. Customary Closing Documents. The Consenting Lenders shall have received such officer's certificates, secretary's certificates, resolutions, lien searches and other customary deliverables as they shall request.

Upon satisfaction of the foregoing closing conditions, one or more of the Consenting Lenders shall promptly provide written confirmation to Borrowers' Agent and the Administrative Agent of such satisfaction and identify the Amendment Effective Date. For avoidance of doubt, the parties to this Amendment acknowledge and agree that any assignment of the Tranche A-2 Loans held by Rabobank to Pacific Ethanol or its Affiliates shall be deemed to have occurred after this Amendment becomes effective.

SECTION 6. Effect on the Financing Documents.

- 6.1. Except as set forth in this Amendment, the Credit Agreement and each of the other Financing Documents shall be and remain unchanged and in full force and effect in accordance with their respective terms, are hereby ratified and confirmed in all respects and the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender expressly reserves the right to require strict compliance with the terms of the Credit Agreement (and, following the Amendment Effective Date, the Amended Credit Agreement) and the other Financing Documents. The execution, delivery, and performance of this Amendment shall not operate as a modification or waiver of any right, power, or remedy of any Agent or any Lender under the Credit Agreement (and, following the Amendment Effective Date, the Amended Credit Agreement) or any other Financing Document and no such action shall be construed as (i) a waiver or forbearance of any of the Administrative Agent's, the Collateral Agent's, the Accounts Bank's or the Lenders' rights, remedies, and powers against the Borrowers, any other Loan Party or the Collateral (including, without limitation, the right to terminate without notice the making of Revolving Loans) or (ii) a waiver of any Default or Event of Default. Notwithstanding any provision of this Amendment, nothing herein shall adversely affect the rights, remedies, duties, liabilities, obligations and/or responsibilities of any Lender that has not consented to the terms hereof to the extent such consent may be required pursuant to the Credit Agreement, including Section 11.01 thereof.
- 6.2. Upon and after the effectiveness of this Amendment, each reference in the Credit Agreement to "this Agreement," "hereunder," "herein," "hereof" or words of like import referring to the Credit Agreement, and each reference in the other Financing Documents to "the Credit Agreement," "thereunder," "therein," "thereof" or words of like import referring to the Credit Agreement, shall mean and be a reference to the Credit Agreement as modified by this Amendment.
- 6.3. To the extent that any terms and conditions in any of the Financing Documents shall contradict or be in conflict with any terms or conditions of the Credit Agreement, after giving effect to this Amendment, such terms and conditions are hereby deemed modified or amended accordingly to reflect the terms and conditions of the Credit Agreement as modified hereby (except to the extent that such contradiction or conflict is expressly permitted by this Amendment).

SECTION 7. Governing Law. This Amendment shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without regard to conflicts of law principles that would require the application of laws of another jurisdiction.

SECTION 8. Financing Document. This Amendment shall be deemed to be a Financing Document for all purposes.

- SECTION 9. Release by Loan Parties. As of the Effective Date, each Loan Party hereby waives, releases, remises and forever discharges the Administrative Agent, the Collateral Agent, the Accounts Bank, each Lender, each of the other Senior Secured Parties, each of their respective Affiliates and each of the officers, directors, employees, and professionals of each Lender, the Administrative Agent, the Collateral Agent, the Accounts Bank and each of the other Senior Secured Parties and their respective Affiliates (collectively, the "Releasees"), from any and all claims, demands, obligations, liabilities, causes of action, damages, losses, costs and expenses of any kind or character, known or unknown, past or present, liquidated or unliquidated, suspected or unsuspected, which such Loan Party ever had from the beginning of the world or now has or that any of the Loan Parties' respective successors and assigns hereafter can or may have against any such Releasee which relates, directly or indirectly to the Credit Agreement, any other Financing Document, or to any acts or omissions of any such Releasee relating to the Credit Agreement or any other Financing Document in each case, pertaining to facts, events or circumstances existing on or prior to the date hereof, including, without limitation, the execution and delivery by any and all Releasees of this Amendment, except for the duties and obligations expressly set forth in this Amendment, the Credit Agreement and the other Financing Documents (as modified by the provisions hereof). As to each and every claim released hereunder, each Loan Party hereby represents that it has received the advice of legal counsel with regard to the releases contained herein, and waives the benefits of each provision of applicable federal or state law (including, without limitation, the laws of the state of New York), if any, pertaining to general releases after having been advised by its legal counsel with respect thereto. Each Loan Party understands that the facts which they believe to be true at the time of making the release provided for herein may later turn out to be different than they now believe, and that information which is not now known or suspected may later be discovered. Each Loan Party accepts this possibility, and each Loan Party assumes the risk of the facts being different and new information being discovered; and each Loan Party further agrees that the release provided for herein shall in all respects continue to be effective and not subject to termination or rescission because of any difference in such facts or any new information.
- SECTION 10. Severability. Wherever possible, each provision of this Amendment shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Amendment shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Amendment.
- SECTION 11. Counterparts. This Amendment may be executed by one or more of the parties hereto on any number of separate counterparts, each of which shall be deemed an original and all of which, taken together, shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of this Amendment by facsimile or other electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.

SECTION 12. Lender Direction. Each of the undersigned Lenders hereby directs each of the Administrative Agent, the Collateral Agent and the Accounts Bank to execute and deliver this Amendment and to perform its respective obligations hereunder.

SECTION 13. Extending Lenders. Candlewood Special Situations Master Fund, LTD. and CWD OC 522 Master Fund, LTD. (collectively the "Candlewood Funds") acknowledge and agree that (a) the Candlewood Funds have or will become Extending Lenders and (b) on or before April 30, 2013 the Candlewood Funds will either (i) execute and deliver such additional documents as Administrative Agent and Borrowers' Agent may reasonably require to confirm the Candlewood Funds status as an Extending Lender or (ii) acquire by assignment a portion of the Loans held by Credit Suisse Loan Funding LLC (which is an Extending Lender) in order to become an Extending Lender pursuant to clause (c) of the definition of such term in the Credit Agreement.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers as of the day and year first written above.

PACIFIC ETHANOL HOLDING CO. LLC, as a Borrower and as
Borrowers' Agent

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

PACIFIC ETHANOL MADERA LLC, as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

PACIFIC ETHANOL COLUMBIA, LLC, as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

PACIFIC ETHANOL STOCKTON LLC, as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

PACIFIC ETHANOL MAGIC VALLEY, LLC, as a Borrower

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

NEW PE HOLDCO, LLC, as Pledgor

By: /s/ Bryon T. McGregor
Name: Bryon T. McGregor
Title: Chief Operating Officer

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AMARILLO NATIONAL BANK, as Accounts Bank

By: /s/ Craig L. Sanders
Name: Craig L. Sanders
Title: Executive Vice President

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WELLS FARGO BANK, N. A., as Administrative Agent and
Collateral Agent

By: /s/ Michael Pinzon
Name: Michael Pinzon
Title: Vice President

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

REQUIRED LENDER:

CANDLEWOOD CREDIT VALUE MASTER FUND II LP

By: Credit Value Partners, LP, as Investment Manager

By: /s/ Michael Geroux

Name: Michael Geroux

Title: Partner

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

REQUIRED LENDER:

CANDLEWOOD SPECIAL SITUATIONS FUND, LP

By: /s/ David Koenig

Name: David Koenig

Title: Authorized Signatory

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

REQUIRED LENDER:

CANDLEWOOD SPECIAL SITUATIONS MASTER FUND, LTD.

By: /s/ David Koenig

Name: David Koenig

Title: Authorized Signatory

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

REQUIRED LENDER:

CWD OC 522 MASTER FUND, LTD.

By: /s/ David Koenig

Name: David Koenig

Title: Authorized Signatory

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REQUIRED LENDER:

CREDIT SUISSE LOAN FUNDING LLC

By: /s/ Robert Healey

Name: Robert Healey

Title: Authorized Signatory

By: /s/ Michael Wotanowski

Name: Michael Wotanowski

Title: Authorized Signatory

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REQUIRED LENDER:

METROPOLITAN LIFE INSURANCE COMPANY

By: /s/ David Yu

Name: David Yu

Title: Director

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COOPERATIEVE CENTRALE RAIFFEISEN-
BOERENLEENBANK B.A., "RABOBANK NEDERLAND", NEW
YORK BRANCH

By: /s/ Benjamin Matz

Name: Benjamin Matz

Title: Vice President

By: /s/ William Fitzgerald

Name: William Fitzgerald

Title: Managing Director

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

ACCEPTANCE OF NOTICE

The undersigned, as Collateral Agent under the Senior Credit Agreement, hereby acknowledges receipt of notice of the foregoing Amendment as required pursuant to Section 7.01(b) of the Intercreditor Agreement.

WELLS FARGO BANK, N.A., as Collateral Agent

By: /s/ Michael Pinzon

Name: Michael Pinzon

Title: Vice President

Signature Page to Second Amendment to Second Amended and Restated Credit Agreement

**FOURTH AMENDMENT TO SECOND AMENDED AND RESTATED
CREDIT AGREEMENT**

This FOURTH AMENDMENT TO SECOND AMENDED AND RESTATED CREDIT AGREEMENT (this “Amendment”), dated as of January 30, 2016 (the “Effective Date”), is entered into by and among PACIFIC ETHANOL HOLDING CO. LLC, a Delaware limited liability company (“Pacific Holding”), PACIFIC ETHANOL MADERA LLC, a Delaware limited liability company (“Madera”), PACIFIC ETHANOL COLUMBIA, LLC, a Delaware limited liability company (“Boardman”), PACIFIC ETHANOL STOCKTON LLC, a Delaware limited liability company (“Stockton”), and PACIFIC ETHANOL MAGIC VALLEY, LLC, a Delaware limited liability company (“Burley” and, together with Pacific Holding, Madera, Boardman and Stockton, the “Borrowers”), Pacific Holding, as Borrowers’ Agent, PE OP CO., a Delaware corporation (f/k/a New PE Holdco LLC), as Pledgor (the “Pledgor” and together with Borrowers and Pacific Holding as Borrower’s Agent, the “Borrower Parties”), each of the Lenders, WELLS FARGO BANK, N.A., as administrative agent for the Lenders (“Administrative Agent”), and WELLS FARGO BANK, N.A., as collateral agent for the Senior Secured Parties (“Collateral Agent”). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Credit Agreement (as hereinafter defined).

RECITALS

WHEREAS, the Borrower Parties, the Lenders party thereto, Administrative Agent, Collateral Agent, and Accounts Bank, entered into that certain Second Amended and Restated Credit Agreement dated as of October 29, 2012 (as amended to date, the “Credit Agreement”);

WHEREAS, pursuant to the Credit Agreement, three separate commitments were extended to the Borrowers, a Tranche A-1 Term Loan, a Tranche A-2 Term Loan and a Revolving Loan (which Revolving Loan includes a letter of credit sub-facility commitment, the “Letter of Credit Sub-facility”), all as further described in the Credit Agreement, including Sections 2.01 through 2.03 thereof);

WHEREAS, pursuant to Section 2.03 of the Credit Agreement, the Letter of Credit Sub-facility was terminated and no letters of credit remain outstanding with respect to Letter of Credit Sub-facility; and

WHEREAS, pursuant to that certain Acknowledgement and Confirmation of Termination of Lender Commitments dated as of December 29, 2015 (the “Acknowledgement”) executed by Borrower Parties in favor of Administrative Agent, Collateral Agent and Lenders, Borrower Parties acknowledged and confirmed to Administrative Agent, Collateral Agent and Lenders that the Revolving Loan Commitment has been terminated and, pursuant to that Acknowledgement, further agreed to enter into this Amendment with Administrative Agent, Collateral Agent and Lenders to confirm and otherwise formally document such termination on the terms and conditions set forth below;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged and confirmed, the parties hereto hereby agree as follows:

SECTION 1. Amendments. The Credit Agreement is hereby amended as follows:

- 1.1 By amending the definitions of “Aggregate Revolving Loan Commitment” and “Revolving Loan Commitment” in their entirety to read as follows:

““Aggregate Revolving Loan Commitment” means \$0.”

““Revolving Loan Commitment” means \$0.”

1.2 By amending Section 3.11(a) in its entirety to read as follows:

“(a) Reserved.”

SECTION 2. Confirmation of Termination of Revolving Loan Commitment. It is hereby confirmed that effective as of no later than December 29, 2015, (i) there are no outstanding Revolving Loans under the Credit Agreement and the Revolving Loan Commitment of each Revolving Lender has been unconditionally and permanently terminated (which termination includes confirmation of the unconditional and permanent termination of the Letter of Credit Sub-facility).

SECTION 3. Payment of Costs and Fees. Each Borrower (i) reaffirms its obligations under Section 11.07 of the Credit Agreement and (ii) without limiting the provisions set forth in Section 11.07 of the Credit Agreement, acknowledges, consents and agrees that it shall promptly pay, upon receipt of invoices therefor, to the Administrative Agent, the Collateral Agent and each Lender all reasonable out-of-pocket costs, fees, expenses and charges of every kind in connection with the preparation, negotiation, execution and delivery of this Amendment incurred by or on behalf of such Persons, including, without limitation, the reasonable fees and disbursements of Kelley Drye & Warren LLP, counsel to the Administrative Agent and the Collateral Agent.

SECTION 4. Acknowledgements.

4.1. Reaffirmation of Obligations. Each Borrower Party hereby (a) reaffirms, acknowledges, confirms and agrees to its respective guarantees, pledges and grants of security interests and other commitments and Obligations under the Financing Documents and (b) confirms and agrees that the Financing Documents and all guarantees, pledges and grants of security interests and other commitments and Obligations thereunder shall continue to be in full force and effect following the effectiveness of this Amendment. All Obligations under the Credit Agreement and the other Financing Documents owing by the Borrower Parties to the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender, as the case may be, are unconditionally owing by the Borrower Parties to the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender, as the case may be, without offset, defense or counterclaim of any kind, nature or description whatsoever.

4.2. Acknowledgement of Security Interests. Each Borrower Party hereby acknowledges, confirms and agrees that the Collateral Agent, for itself and the benefit of Senior Secured Parties, has and shall continue to have valid, enforceable and perfected first-priority liens (subject only to Permitted Liens) upon and security interests in the Collateral granted to the Collateral Agent, for itself and the benefit of Senior Secured Parties, pursuant to the Financing Documents.

4.3. Binding Effect of Documents. Each Borrower Party hereby acknowledges, confirms and agrees that: (i) each of the Financing Documents to which it is a party has been duly executed and delivered to the Administrative Agent, the Collateral Agent, the Accounts Bank and the Lenders party thereto by it, and each is in full force and effect as of the Effective Date, (ii) the agreements and obligations of such Borrower Party contained in the Credit Agreement, in each of the other Financing Documents and in this Amendment constitute the legal, valid and binding obligations of such Borrower Party, enforceable against such Borrower Party in accordance with their respective terms, and such Borrower Party has no valid defense to the enforcement of the obligations under the Credit Agreement or the other Financing Documents, except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and (iii) the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender are and shall be entitled to the rights, remedies and benefits provided for in the Financing Documents and under applicable law or at equity.

SECTION 5. Representations and Warranties of Borrower Parties. Each of the Borrower Parties hereby represents and warrants in favor of the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender as follows:

- 5.1. The execution, delivery and performance by such Borrower Party of this Amendment are within such Borrower Party's powers and have been duly authorized by all necessary action on the part of such Borrower Party.
- 5.2. This Amendment has been duly executed and delivered by such Borrower Party and this Amendment constitutes a legal, valid and binding obligation of such Borrower Party enforceable in accordance with its terms except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).
- 5.3. The execution, delivery or performance of this Amendment by such Borrower Party (i) does not require any consent or approval of, registration of filing with, or any other action by, any Person (including, without limitation, any Governmental Authority) except such as have been obtained or made and are in full force and effect, (ii) will not violate the organizational or governing documents of any Borrower Party and (iii) will not violate any applicable Law or any Contractual Obligation applicable to or binding upon such Borrower Party or any of their respective properties or assets.
- 5.4. No event has occurred or is continuing, that would constitute a Default or an Event of Default under the Credit Agreement or any other Financing Document.
- 5.5. As of the Effective Date no litigation by, investigation known to such Borrower Party by, or proceeding of, any Governmental Authority is pending or, to the knowledge of such Borrower Party, has been threatened against such Borrower Party which (i) challenges such Borrower Party's right, power, or competence to enter into this Amendment or perform any of its obligations under this Amendment or the validity or enforceability of this Amendment or any action taken under this Amendment or (ii) is reasonably likely, if adversely decided, to have a Material Adverse Effect.
- 5.6. After giving effect to this Amendment, the representations and warranties of such Borrower Party contained in the Credit Agreement and the other Financing Documents are true and correct in all material respects (provided, that if any representation or warranty is by its terms qualified by concepts of materiality, such representation shall be true and correct in all respects) on and as of the Effective Date with the same effect as if such representations and warranties had been made on and as of such date, except that any such representation or warranty which is expressly made only as of a specified date need be true only as of such date.

SECTION 6. Conditions to Effectiveness of this Amendment. This Amendment shall be effective only if and when signed by, and when counterparts hereof shall have been delivered to the Administrative Agent (by hand delivery, mail, telecopy or other electronic transmission) by, the Borrower Parties and the Lenders.

SECTION 7. Effect on the Financing Documents.

- 7.1. Except as set forth in this Amendment, the Credit Agreement and each of the other Financing Documents shall be and remain unchanged and in full force and effect in accordance with their respective terms, are hereby ratified and confirmed in all respects and the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender expressly reserves the right to require strict compliance with the terms of the Credit Agreement (and, following the Effective Date, the Credit Agreement, as amended by this Amendment) and the other Financing Documents. The execution, delivery, and performance of this Amendment shall not operate as a modification or waiver of any right, power, or remedy of any Agent or any Lender under the Credit Agreement (and, following the Effective Date, the Credit Agreement, as amended by this Amendment) or any other Financing Document and no such action shall be construed as (i) a waiver or forbearance of any of the Administrative Agent's, the Collateral Agent's, the Accounts Bank's or the Lenders' rights, remedies, and powers against the Borrowers, any other Borrower Party or the Collateral or (ii) a waiver of any Default or Event of Default. Notwithstanding any provision of this Amendment, nothing herein shall adversely affect the rights, remedies, duties, liabilities, obligations and/or responsibilities of any Lender that has not consented to the terms hereof to the extent such consent may be required pursuant to the Credit Agreement, including Section 11.01 thereof.
- 7.2. Upon and after the effectiveness of this Amendment, each reference in the Credit Agreement to "this Agreement," "hereunder," "herein," "hereof" or words of like import referring to the Credit Agreement, and each reference in the other Financing Documents to "the Credit Agreement," "thereunder," "therein," "thereof" or words of like import referring to the Credit Agreement, shall mean and be a reference to the Credit Agreement as modified by this Amendment.
- 7.3. To the extent that any terms and conditions in any of the Financing Documents shall contradict or be in conflict with any terms or conditions of the Credit Agreement, after giving effect to this Amendment, such terms and conditions are hereby deemed modified or amended accordingly to reflect the terms and conditions of the Credit Agreement as modified hereby (except to the extent that such contradiction or conflict is expressly permitted by this Amendment).

SECTION 8. Ratification. Except as expressly modified hereby or waived herein, the Credit Agreement and the other Financing Documents shall be and remain unchanged and in full force and effect in accordance with their respective terms, are hereby ratified and confirmed in all respects.

- SECTION 9. Governing Law. This Amendment shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without regard to conflicts of law principles that would require the application of laws of another jurisdiction.
- SECTION 10. Financing Document. This Amendment shall be deemed to be a Financing Document for all purposes.
- SECTION 11. Severability. Wherever possible, each provision of this Amendment shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Amendment shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Amendment.
- SECTION 12. Counterparts. This Amendment may be executed by one or more of the parties hereto on any number of separate counterparts, each of which shall be deemed an original and all of which, taken together, shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of this Amendment by facsimile or other electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.
- SECTION 13. Lender Direction. Each of the undersigned Lenders hereby directs each of the Administrative Agent and the Collateral Agent to execute and deliver this Amendment and to perform its respective obligations hereunder. The undersigned Lenders agree and direct that no other document (including without limitation any opinion) is required in connection with this Amendment.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers as of the day and year first written above.

PACIFIC ETHANOL HOLDING CO. LLC, as a Borrower and as Borrower's Agent

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL MADERA LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL COLUMBIA, LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL STOCKTON LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL MAGIC VALLEY, LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PE OP CO., as Pledgor

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

WELLS FARGO BANK, N.A., as Administrative Agent and Collateral Agent

By: /s/ MICHAEL ROTH
Name: Michael Roth
Title: V.P.

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Candlewood Special Situations Master Fund, Ltd., as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Candlewood Financial Opportunities Master Fund, Ltd., as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Candlewood Financial Opportunities Fund, LLC, as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

CWD Master Fund, Ltd., as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Flagler Master Fund SPC Ltd. for and on behalf of Segregated Portfolio A, as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Flagler Master Fund SPC Ltd. for and on behalf of Segregated Portfolio B, as Lender

By: /s/ DAVID KOENIG

Name: David Koenig

Title: PM & Managing Partner of CIG, the Investment Advisor

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Credit Suisse Loan Funding LLC, as Lender

By: /s/ ROBERT HEALEY
Name: Robert Healey
Title: Authorized Signatory

Signature Page to Amendment to Second Amended and Restated Credit Agreement

**FIFTH AMENDMENT TO SECOND AMENDED AND RESTATED
CREDIT AGREEMENT**

This FIFTH AMENDMENT TO SECOND AMENDED AND RESTATED CREDIT AGREEMENT (this “Amendment”), dated as of February 26, 2016 (the “Effective Date”), is entered into by and among PACIFIC ETHANOL HOLDING CO. LLC, a Delaware limited liability company (“Pacific Holding”), PACIFIC ETHANOL MADERA LLC, a Delaware limited liability company (“Madera”), PACIFIC ETHANOL COLUMBIA, LLC, a Delaware limited liability company (“Boardman”), PACIFIC ETHANOL STOCKTON LLC, a Delaware limited liability company (“Stockton”), and PACIFIC ETHANOL MAGIC VALLEY, LLC, a Delaware limited liability company (“Burley” and, together with Pacific Holding, Madera, Boardman and Stockton, the “Borrowers”), Pacific Holding, as Borrowers’ Agent, PE OP CO., a Delaware corporation (f/k/a New PE Holdco LLC), as Pledgor (the “Pledgor” and together with Borrowers and Pacific Holding as Borrower’s Agent, the “Borrower Parties”), each of the Lenders, WELLS FARGO BANK, N.A., as administrative agent for the Lenders (“Administrative Agent”), and WELLS FARGO BANK, N.A., as collateral agent for the Senior Secured Parties (“Collateral Agent”). Capitalized terms used but not otherwise defined herein shall have the meaning ascribed to such terms in the Credit Agreement (as hereinafter defined).

RECITALS

WHEREAS, the Borrower Parties, the Lenders party thereto, Administrative Agent, Collateral Agent, and Accounts Bank, entered into that certain Second Amended and Restated Credit Agreement dated as of October 29, 2012 (as amended to date, the “Credit Agreement”);

WHEREAS, pursuant to the Credit Agreement, three separate commitments were extended to the Borrowers, a Tranche A-1 Term Loan, a Tranche A-2 Term Loan and a Revolving Loan, all as further described in the Credit Agreement, including Sections 2.01 through 2.03 thereof;

WHEREAS, the Revolving Loan Commitment has been terminated and each of the Revolving Lenders have ceased being Lenders under the Credit Agreement;

WHEREAS, Credit Suisse Loan Funding LLC (“Credit Suisse”) and Pacific Ethanol, Inc. constitute 100% of the Tranche A-1 Lenders;

WHEREAS, Pacific Ethanol, Inc. constitutes the sole Tranche A-2 Lender;

WHEREAS, the Borrowers desire to prepay 100% of the Tranche A-1 Term Loans and other Obligations held by Credit Suisse (the “Loan Prepayment”), and Credit Suisse has agreed to waive any Make-Whole Amount due and payable in connection with the Loan Prepayment; and

WHEREAS, following the Loan Prepayment, Pacific Ethanol, Inc. shall constitute the sole Lender under the Credit Agreement and desires to amend and modify the Credit Agreement as set forth herein;

NOW, THEREFORE, for good and valuable consideration, the receipt and adequacy of which is hereby acknowledged and confirmed, the parties hereto hereby agree as follows:

SECTION 1. Consent and Waiver Regarding Prepayment. As of the date hereof, the following amounts are due (collectively, the “Prepayment Amount”): (A) the principal amount of Tranche A-1 Term Loans held by Credit Suisse in an amount equal to \$17,003,037.06; (B) the accrued interest in respect thereof through February 23, 2016 in an amount equal to \$156,790.30, with interest accruing after February 23, 2016 at the per diem rate of \$6,271.61 until payment in full is received; and (C) the accrued but unpaid fees and costs of Administrative Agent and Collateral Agent, including its attorneys fees and costs, in an amount equal to \$52,757.16 (the “Agent Fees”). Notwithstanding any provision of the Credit Agreement, (i) each of the Lenders hereby consents to the Borrowers’ effecting the Loan Prepayment by (x) paying to Credit Suisse on the date hereof an amount equal to the Prepayment Amount (less the Agent Fees) without any requirement that such prepayment be made in accordance with any waterfall provision in the Credit Agreement or any portion thereof otherwise be distributed to any other Lender, and (y) paying to the Administrative Agent on the date hereof an amount equal to the Agent Fees, and (ii) Credit Suisse hereby waives any and all prepayment premiums or other amounts (other than the Prepayment Amount) due and payable to Credit Suisse (including, without limitation, the Make-Whole Amount provided by Section 3.15 of the Credit Agreement) in connection with the Loan Prepayment. Each of the Administrative Agent and the Lenders waives any notice requirement in connection with such Loan Prepayment. In addition to the Prepayment Amount, Borrowers will be obligated to, and shall promptly, pay Administrative Agent’s and Collateral Agent’s fees and reasonable, out-of-pocket fees and costs related to this Amendment and the consummation thereof (including the fees and costs of the Administrative Agent’s and Collateral Agent’s counsel).

SECTION 2. Amendments. The Credit Agreement is hereby amended as follows:

2.1 Section 10.06(b) of the Credit Agreement is hereby amended and restated to read as follows:

“(b) Upon any notice of resignation by any Agent or upon the removal of any Agent by the proper Persons pursuant to Section 10.06(a), the Required Lenders of the Revolving Loan Class and the Required Lenders of the Tranche A-1 Term Loan Class shall appoint a successor Collateral Agent or Administrative Agent, as applicable, hereunder and under each other Financing Document, or the Required Lenders of the Revolving Loan Class, the Required Lenders of the Tranche A-1 Term Loan Class and the Required Senior Lenders shall appoint a successor Accounts Bank.”

2.2 Section 10.06(c) of the Credit Agreement is hereby amended and restated to read as follows:

“(c) If no successor Agent has been appointed by the proper Persons under Section 10.06(b) within thirty (30) days after the date such notice of resignation was given by such Agent or the proper Persons elected to remove such Agent under Section 10.06(a), and provided that no Default or Event of Default has occurred and is continuing, the Borrowers may appoint a replacement Agent within the immediately succeeding fifteen (15) days.”

SECTION 3. Payment of Costs and Fees. Each Borrower (i) reaffirms its obligations under Section 11.07 of the Credit Agreement and (ii) without limiting the provisions set forth in Section 11.07 of the Credit Agreement, acknowledges, consents and agrees that it shall promptly pay, upon receipt of invoices therefor, to the Administrative Agent, the Collateral Agent and each Lender all reasonable out-of-pocket costs, fees, expenses and charges of every kind in connection with the preparation, negotiation, execution and delivery of this Amendment incurred by or on behalf of such Persons, including, without limitation, the reasonable fees and disbursements of Kelley Drye & Warren LLP, counsel to the Administrative Agent and the Collateral Agent.

SECTION 4. Acknowledgements.

- 4.1. Reaffirmation of Obligations. Each Borrower Party hereby (a) reaffirms, acknowledges, confirms and agrees to its respective guarantees, pledges and grants of security interests and other commitments and Obligations under the Financing Documents and (b) confirms and agrees that the Financing Documents and all guarantees, pledges and grants of security interests and other commitments and Obligations thereunder shall continue to be in full force and effect following the effectiveness of this Amendment. All Obligations under the Credit Agreement and the other Financing Documents owing by the Borrower Parties to the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender, as the case may be, are unconditionally owing by the Borrower Parties to the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender, as the case may be, without offset, defense or counterclaim of any kind, nature or description whatsoever.
- 4.2. Acknowledgement of Security Interests. Each Borrower Party hereby acknowledges, confirms and agrees that the Collateral Agent, for itself and the benefit of Senior Secured Parties, has and shall continue to have valid, enforceable and perfected first-priority liens (subject only to Permitted Liens) upon and security interests in the Collateral granted to the Collateral Agent, for itself and the benefit of Senior Secured Parties, pursuant to the Financing Documents.
- 4.3. Binding Effect of Documents. Each Borrower Party hereby acknowledges, confirms and agrees that: (i) each of the Financing Documents to which it is a party has been duly executed and delivered to the Administrative Agent, the Collateral Agent, the Accounts Bank and the Lenders party thereto by it, and each is in full force and effect as of the Effective Date, (ii) the agreements and obligations of such Borrower Party contained in the Credit Agreement, in each of the other Financing Documents and in this Amendment constitute the legal, valid and binding obligations of such Borrower Party, enforceable against such Borrower Party in accordance with their respective terms, and such Borrower Party has no valid defense to the enforcement of the obligations under the Credit Agreement or the other Financing Documents, except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law) and (iii) the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender are and shall be entitled to the rights, remedies and benefits provided for in the Financing Documents and under applicable law or at equity.

SECTION 5. Representations and Warranties of Borrower Parties. Each of the Borrower Parties hereby represents and warrants in favor of the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender as follows:

- 5.1. The execution, delivery and performance by such Borrower Party of this Amendment are within such Borrower Party's powers and have been duly authorized by all necessary action on the part of such Borrower Party.

- 5.2 This Amendment has been duly executed and delivered by such Borrower Party and this Amendment constitutes a legal, valid and binding obligation of such Borrower Party enforceable in accordance with its terms except as enforceability may be limited by bankruptcy, insolvency, moratorium, reorganization or other similar laws limiting creditors rights generally and except as enforceability may be limited by general principles of equity (regardless of whether such enforceability is considered in a proceeding in equity or at law).
- 5.3 The execution, delivery or performance of this Amendment by such Borrower Party (i) does not require any consent or approval of, registration of filing with, or any other action by, any Person (including, without limitation, any Governmental Authority) except such as have been obtained or made and are in full force and effect, (ii) will not violate the organizational or governing documents of any Borrower Party and (iii) will not violate any applicable Law or any Contractual Obligation applicable to or binding upon such Borrower Party or any of their respective properties or assets.
- 5.4 No event has occurred or is continuing, that would constitute a Default or an Event of Default under the Credit Agreement or any other Financing Document.
- 5.5 As of the Effective Date no litigation by, investigation known to such Borrower Party by, or proceeding of, any Governmental Authority is pending or, to the knowledge of such Borrower Party, has been threatened against such Borrower Party which (i) challenges such Borrower Party's right, power, or competence to enter into this Amendment or perform any of its obligations under this Amendment or the validity or enforceability of this Amendment or any action taken under this Amendment or (ii) is reasonably likely, if adversely decided, to have a Material Adverse Effect.
- 5.6 After giving effect to this Amendment, the representations and warranties of such Borrower Party contained in the Credit Agreement and the other Financing Documents are true and correct in all material respects (provided, that if any representation or warranty is by its terms qualified by concepts of materiality, such representation shall be true and correct in all respects) on and as of the Effective Date with the same effect as if such representations and warranties had been made on and as of such date, except that any such representation or warranty which is expressly made only as of a specified date need be true only as of such date.

SECTION 6. Conditions to Effectiveness of this Amendment. This Amendment shall be effective only (i) if and when signed by, and when counterparts hereof shall have been delivered to the Administrative Agent (by hand delivery, mail, telecopy or other electronic transmission) by, the Borrower Parties and the Lenders, and (ii) when the Borrower Parties shall have paid (A) an amount equal to the Prepayment Amount (less the Agent Fees) to Credit Suisse, and (B) an amount equal to the Agent Fees to the Administrative Agent.

SECTION 7. Effect on the Financing Documents.

- 7.1. Except as set forth in this Amendment, the Credit Agreement and each of the other Financing Documents shall be and remain unchanged and in full force and effect in accordance with their respective terms, are hereby ratified and confirmed in all respects and the Administrative Agent, the Collateral Agent, the Accounts Bank and each Lender expressly reserves the right to require strict compliance with the terms of the Credit Agreement (and, following the Effective Date, the Credit Agreement, as amended by this Amendment) and the other Financing Documents. The execution, delivery, and performance of this Amendment shall not operate as a modification or waiver of any right, power, or remedy of any Agent or any Lender under the Credit Agreement (and, following the Effective Date, the Credit Agreement, as amended by this Amendment) or any other Financing Document and no such action shall be construed as (i) a waiver or forbearance of any of the Administrative Agent's, the Collateral Agent's, the Accounts Bank's or the Lenders' rights, remedies, and powers against the Borrowers, any other Borrower Party or the Collateral or (ii) a waiver of any Default or Event of Default. Notwithstanding any provision of this Amendment, nothing herein shall adversely affect the rights, remedies, duties, liabilities, obligations and/or responsibilities of any Lender that has not consented to the terms hereof to the extent such consent may be required pursuant to the Credit Agreement, including Section 11.01 thereof.
- 7.2. Upon and after the effectiveness of this Amendment, each reference in the Credit Agreement to "this Agreement," "hereunder," "herein," "hereof" or words of like import referring to the Credit Agreement, and each reference in the other Financing Documents to "the Credit Agreement," "thereunder," "therein," "thereof" or words of like import referring to the Credit Agreement, shall mean and be a reference to the Credit Agreement as modified by this Amendment.
- 7.3. To the extent that any terms and conditions in any of the Financing Documents shall contradict or be in conflict with any terms or conditions of the Credit Agreement, after giving effect to this Amendment, such terms and conditions are hereby deemed modified or amended accordingly to reflect the terms and conditions of the Credit Agreement as modified hereby (except to the extent that such contradiction or conflict is expressly permitted by this Amendment).

SECTION 8. Ratification. Except as expressly modified hereby or waived herein, the Credit Agreement and the other Financing Documents shall be and remain unchanged and in full force and effect in accordance with their respective terms, are hereby ratified and confirmed in all respects.

SECTION 9. Governing Law. This Amendment shall be governed by, and construed and interpreted in accordance with, the laws of the State of New York, without regard to conflicts of law principles that would require the application of laws of another jurisdiction.

SECTION 10. Financing Document. This Amendment shall be deemed to be a Financing Document for all purposes.

SECTION 11. Severability. Wherever possible, each provision of this Amendment shall be interpreted in such a manner as to be effective and valid under applicable law, but if any provision of this Amendment shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provision or the remaining provisions of this Amendment.

SECTION 12. Counterparts. This Amendment may be executed by one or more of the parties hereto on any number of separate counterparts, each of which shall be deemed an original and all of which, taken together, shall be deemed to constitute one and the same instrument. Delivery of an executed counterpart of this Amendment by facsimile or other electronic transmission shall be as effective as delivery of a manually executed counterpart hereof.

SECTION 13. Lender Direction. Each of the undersigned Lenders hereby directs each of the Administrative Agent and the Collateral Agent to execute and deliver this Amendment and to perform its respective obligations hereunder. The undersigned Lenders agree and direct that no other document (including without limitation any opinion) is required in connection with this Amendment.

[Signature Pages Follow]

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers as of the day and year first written above.

PACIFIC ETHANOL HOLDING CO. LLC, as a Borrower and as Borrowers' Agent

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL MADERA LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL COLUMBIA, LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL STOCKTON LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PACIFIC ETHANOL MAGIC VALLEY, LLC, as a Borrower

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

PE OP CO., as Pledgor

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

WELLS FARGO BANK, N.A., as Administrative Agent and Collateral Agent

By: /s/ MICHAEL ROTH
Name: Michael Roth
Title: V.P.

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Credit Suisse Loan Funding LLC, as Lender

By: /s/ ROBERT HEALEY
Name: Robert Healey
Title: Authorized Signatory

By: /s/ MICHAEL WOTANOWSKI
Name: Michael Wotanowski
Title: Authorized Signatory

Signature Page to Amendment to Second Amended and Restated Credit Agreement

The undersigned Lender acknowledges and agrees that this signature page shall be fully valid and binding upon such Lender upon its execution and delivery by such Lender to the Administrative Agent and may not thereafter be revoked, terminated or cancelled by such Lender.

Pacific Ethanol, Inc., as Lender

By: /s/ BRYON T. MCGREGOR
Name: Bryon T. McGregor
Title: Chief Financial Officer

Signature Page to Amendment to Second Amended and Restated Credit Agreement

EXHIBIT 21.1**SUBSIDIARIES OF THE REGISTRANT**

<u>Subsidiary Name</u>	<u>Name(s) Under Which Subsidiary Does Business*</u>	<u>State or Jurisdiction of Incorporation or Organization</u>
Kinergy Marketing LLC	–	Oregon
Pacific Ag. Products, LLC	PAP	California
Pacific Ethanol Development, LLC	–	Delaware
PE Op Co.	–	Delaware
Pacific Ethanol Holding Co. LLC	–	Delaware
Pacific Ethanol Columbia, LLC	–	Delaware
Pacific Ethanol Madera LLC	–	Delaware
Pacific Ethanol Magic Valley, LLC	–	Delaware
Pacific Ethanol Stockton LLC	–	Delaware
Pacific Ethanol Central, LLC	–	Delaware
Pacific Ethanol Aurora East, LLC	–	Delaware
Pacific Ethanol Aurora West, LLC	–	Delaware
Pacific Ethanol Canton, LLC	–	Delaware
Pacific Ethanol Pekin, Inc.	–	Delaware

* If different from the name of the subsidiary.

EXHIBIT 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement (Nos. 333-123538, 333-137663, 333-169002, 333-176540, 333-185884, 333-189478 and 333-196876) on Form S-8 and (Nos. 333-178685, 333-180731 and 333-195364) on Form S-3 and (No. 333-201879) on Form S-4, of Pacific Ethanol, Inc. of our reports dated March 15, 2016 relating to our audits of the consolidated financial statements and internal control over financial reporting of Pacific Ethanol, Inc., which appear in this Annual Report on Form 10-K of Pacific Ethanol, Inc. for the year ended December 31, 2015.

/s/ RSM US LLP

Sioux Falls, South Dakota
March 15, 2016

EXHIBIT 23.2

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in Registration Statement (Nos. 333-137663, 333-123538, 333-169002, 333-176540, 333-185884, 333-189478 and 333-196876) on Form S-8 and (Nos. 333-178685, 333-180731 and 333-195364) on Form S-3 and (No. 333-201879) on Form S-4, of Pacific Ethanol, Inc. of our report dated March 16, 2015, relating to our audits of the consolidated financial statements, and the financial statement schedules, as of December 31, 2014 and for the years ended December 31, 2014 and 2013, which appears in this Annual Report on Form 10-K of Pacific Ethanol, Inc. for the year ended December 31, 2015.

/s/ HEIN & ASSOCIATES LLP

Irvine, California
March 15, 2016

CERTIFICATION

Pacific Ethanol, Inc. (the “registrant”) completed its acquisition of Aventine Renewable Energy Holdings, Inc. (“Aventine”) on July 1, 2015. As permitted pursuant to the Securities and Exchange Commission’s guidance, management excluded Aventine’s business from its assessment of the effectiveness of the registrant’s internal control over financial reporting as of December 31, 2015. Aventine represented approximately 53% of the registrant’s total assets as of December 31, 2015 and Aventine’s business generated approximately 25% of the registrant’s net sales for the year ended December 31, 2015.

I, Neil M. Koehler, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pacific Ethanol, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: March 15, 2016

/s/ NEIL M. KOEHLER
Neil M. Koehler
President and Chief Executive Officer (Principal Executive Officer)

CERTIFICATION

Pacific Ethanol, Inc. (the “registrant”) completed its acquisition of Aventine Renewable Energy Holdings, Inc. (“Aventine”) on July 1, 2015. As permitted pursuant to the Securities and Exchange Commission’s guidance, management excluded Aventine’s business from its assessment of the effectiveness of the registrant’s internal control over financial reporting as of December 31, 2015. Aventine represented approximately 53% of the registrant’s total assets as of December 31, 2015 and Aventine’s business generated approximately 25% of the registrant’s net sales for the year ended December 31, 2015.

I, Bryon T. McGregor, certify that:

1. I have reviewed this Annual Report on Form 10-K of Pacific Ethanol, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant’s other certifying officers and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant’s internal control over financial reporting that occurred during the registrant’s most recent fiscal quarter (the registrant’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant’s internal control over financial reporting; and
5. The registrant’s other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant’s auditors and the audit committee of the registrant’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant’s internal control over financial reporting.

Date: March 15, 2016

/s/ BRYON T. MCGREGOR
Bryon T. McGregor
Chief Financial Officer (Principal Financial and Accounting Officer)

EXHIBIT 32.1

**CERTIFICATIONS OF CHIEF EXECUTIVE OFFICER AND CHIEF FINANCIAL OFFICER
PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report on Form 10-K of Pacific Ethanol, Inc. (the "Company") for the year ended December 31, 2015 (the "Report"), the undersigned hereby certify in their capacities as Chief Executive Officer and Chief Financial Officer of the Company, respectively, pursuant to 18 U.S.C. section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

1. the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
2. the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 15, 2016

By: /s/ NEIL M. KOEHLER
Neil M. Koehler
Chief Executive Officer
(Principal Executive Officer)

Date: March 15, 2016

By: /s/ BRYON T. MCGREGOR
Bryon T. McGregor
Chief Financial Officer (Principal Financial and Accounting
Officer)

A signed original of this written statement required by Section 906, or other document authenticating, acknowledging, or otherwise adopting the signatures that appear in typed form within the electronic version of this written statement required by Section 906, has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff upon request.