Pacific Ethanol, Inc.
Form 10-K
March 18, 2019

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, 2018
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	**41-2170618**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**

400 Capitol Mall, Suite 2060, Sacramento, California	**95814**
(Address of principal executive offices)	**(Zip Code)**

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

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

Title of each 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 every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) 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, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	Accelerated filer
Non-accelerated filer	Smaller reporting company
Emerging growth company	

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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 and non-voting common equity held by nonaffiliates of the registrant computed by reference to the closing sale price of such stock, was approximately $112.2 million as of June 29, 2018, the last business day of the registrant's most recently completed second fiscal quarter.

As of March 14, 2019, there were 48,890,428 shares of the registrant's common stock, $0.001 par value per share, and 896 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 2019 Annual Meeting of Stockholders to be filed on or before April 30, 2019.

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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.

Recent Developments

We and the ethanol industry as a whole experienced significant adverse conditions throughout most of 2018 as a result of industry-wide record low ethanol prices due to reduced demand and high industry inventory levels. These factors resulted in prolonged negative operating margins, significantly lower cash flow from operations and substantial net losses. In response to these adverse conditions, we have initiated and expect to complete over the next six months a strategic realignment of our business. Our primary focus is the potential sale of certain production assets, a reduction of our debt levels, a strengthening of our cash and liquidity, and opportunities for strategic partnerships and capital raising activities, positioning us to optimize our business performance. We believe we have excellent production assets with values well in excess of our near term liquidity needs. We are also confident in our strong relationships with our financial and commercial partners and believe we are taking the appropriate steps to increase our shareholder value to benefit all of our stakeholders long-term and to provide greater financial flexibility to execute future strategic initiatives.

We believe our strategic realignment, if implemented timely and on suitable terms, will provide sufficient liquidity to meet our anticipated working capital, debt service and other liquidity needs through at least the next twelve months. However, if we are unable to timely implement our strategic realignment on suitable terms, if margins do not improve, or if we are unable to further defer principal and/or interest payments or extend the maturity date on our debt, we will likely have insufficient liquidity through the next twelve months, or earlier depending on margins, operating cash flows and lender forbearance. In addition, if margins do not improve from current levels, we may be forced to curtail our production at one or more of our operating facilities. See “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources”.

Business Overview

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

We operate nine strategically-located production facilities. Four of our plants are in the Western states of California, Oregon and Idaho, and five of our plants are located in the Midwestern states of Illinois and Nebraska. We are the sixth largest producer of ethanol in the United States based on annualized volumes. Our plants have a combined production capacity of 605 million gallons per year. We market all the ethanol, specialty alcohols and co-products produced at our plants as well as ethanol produced by third parties. On an annualized basis, we market nearly 1.0 billion gallons of ethanol and over 3.0 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 be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products in the United States. We intend to accomplish this goal in part by investing in our ethanol production and distribution infrastructure, 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, specialty alcohols and co-products at our production facilities described below. Our plants located on the West Coast are near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages. Our plants located in the Midwest are 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 our plants located in the Midwest, and barges from our Pekin, Illinois plants, allows for greater access to international markets.

We wholly-own all of our plants located on the West Coast and the three plants in Pekin, Illinois. We own approximately 74% of the two plants in Aurora, Nebraska as well as the grain elevator adjacent to those properties and related grain handling assets, including the outer rail loop, and the real property on which they are located, through Pacific Aurora, LLC, or Pacific Aurora, an entity owned approximately 26% by Aurora Cooperative Elevator Company, or ACEC.

All of our plants, with the exception of our Aurora East facility, are currently operating. Our Aurora East facility was idled in December 2018 due to unfavorable market conditions. As market conditions change, we may increase, decrease or idle production at one or more operating facilities or resume operations at any idled facility.

Facility Name	Facility Location	Estimated Annual Capacity (gallons)
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
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
Pekin ICP	Pekin, IL	90,000,000

We produce ethanol co-products at our 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, dried yeast and CO_2.

Marketing Segment

We market ethanol, specialty alcohols and co-products produced by our 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 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 4 – Segments” to our Notes to Consolidated Financial Statements included elsewhere in this report for financial information about our business segments.

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 be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products in the United States. The key elements of our business and growth strategy to achieve this objective include:

Implement our strategic realignment plan. We have initiated and expect to complete over the next six months a strategic realignment of our business. Our primary focus is the potential sale of certain production assets and capital raising activities to reduce debt and strengthen our cash and liquidity, and on opportunities for strategic partnerships, positioning us to optimize our business performance.

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.

Implement new equipment and technologies. We intend to continue to evaluate and implement new equipment and technologies to increase our production and operating efficiencies, reduce our use of carbon-based fuels and improve our carbon scores, use diverse feedstocks, diversify products and revenues, including through our production of advanced biofuels, and improve our plant profitability 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 throughout the United States. 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 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 ability to sell and deliver products in bulk via unit trains providing us access to Western, gulf coast and international markets. Further, higher value co-products from our Illinois facilities 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 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 allows us to address regional inefficiencies and other challenges such as rail congestion and other supply constraints, as well as pricing anomalies.

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We operate four 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 enables 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.

We operate five 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.

Our Illinois facilities provide excellent logistical access via rail, truck and barge. The relatively unique wet milling process at one of our Illinois facilities 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.

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 in the Western United States has a lower carbon-intensity than most ethanol produced at plants by other producers. This is primarily because our plants located on the West Coast 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 our plants located on the West Coast or otherwise resell from third-party California producers is valued in the market by our customers due to California's Low Carbon Fuel Standard program, or LCFS, which has enabled us to capture premium prices for this ethanol.

Modern technologies. Our 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 19 years of industry experience, have successfully navigated a wide variety of business and industry-specific challenges and deeply understand 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 be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products 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.

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.

Renewable fuels. Ethanol is blended with gasoline to enable gasoline refiners to comply with a variety of governmental programs, in particular, the national Renewable Fuel Standard, or RFS, which was enacted to promote alternatives to fossil fuels. See "—Governmental Regulation."

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 RFS. Under the RFS, the mandated use of all renewable fuels rises incrementally in succeeding years and peaks at 36.0 billion gallons by 2022. Under the RFS, approximately 14.5 billion gallons in 2016 and 15.0 billion gallons in 2017 and 2018 were required from conventional, or corn-based, ethanol. Under the RFS, 15.0 billion gallons are required from conventional ethanol thru 2022. The RFS allows the Environmental Protection Agency, or EPA, to adjust the annual requirement based on certain facts.

According to the Renewable Fuels Association, the domestic ethanol industry produced a record 16.1 billion gallons of ethanol in 2018. 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 CO_2 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 143 billion gallons and total annual ethanol consumption represented approximately 10% of this amount in 2018. The domestic ethanol industry has substantially reached this 10% blend ratio, and we believe the industry has significant potential for growth in the event the industry can migrate to an up to 15% blend ratio, which would translate into an annual demand of up to 20 billion gallons of ethanol.

On November 30, 2018 the EPA released a final rule which set the 2019 renewable volume obligation, or RVO, as part of the EPA’s annual volume-setting responsibility under the RFS. For total renewable fuel, the RVO was finalized at 19.92 billion gallons, up 63 million gallons when compared to an RVO of 19.29 billion gallons set for 2018. We believe this is a step forward for the renewable fuels industry with the RVO for 2019 sending a strong signal to the marketplace through a 15 billion gallon commitment to conventional ethanol and a 418 million gallon commitment for cellulosic biofuels.

Overview of Ethanol Production Process

Ethanol production from starch- or sugar-based feedstock is a highly-efficient process that we believe 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 CO_2 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 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 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 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 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, dried yeast and CO_2. 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 \$859.8 million, \$845.7 million and \$797.4 million in net sales for the years ended December 31, 2018, 2017 and 2016, respectively, from the sale of ethanol. Our production segment generated \$296.7 million, \$257.0 million and \$248.4 million in net sales for the years ended December 31, 2018, 2017 and 2016, respectively, from the sale of co-products.

During 2018, 2017 and 2016, our production segment sold an aggregate of approximately 556.2 million, 527.2 million and 484.1 million gallons of ethanol and 3.1 million, 3.0 million and 2.8 million tons of ethanol co-products, respectively.

Our marketing segment generated \$358.9 million, \$529.5 million and \$579.0 million in net sales for the years ended December 31, 2018, 2017 and 2016, respectively, from the sale of ethanol.

During 2018, 2017 and 2016, we produced or purchased ethanol from third parties and resold an aggregate of approximately 762 million, 837 million and 816 million gallons of fuel-grade ethanol and specialty alcohols to approximately 80, 83 and 81 customers, respectively. Sales to our two largest customers, Valero Energy Corporation and Chevron Products USA in 2018, 2017 and 2016 represented an aggregate of approximately 25%, 27% and 29%, of our net sales, respectively. Sales to each of our other customers represented less than 10% of our net sales in each of 2018, 2017 and 2016.

Suppliers

Production Segment

Our 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 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 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 2018, 2017 and 2016, purchases of corn from our four largest suppliers represented an aggregate of approximately 52%, 46% and 38% 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 2018, 2017 and 2016.

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 2018, 2017 and 2016, we purchased and resold from third parties an aggregate of approximately 206 million, 310 million and 334 million gallons, respectively, of fuel-grade ethanol.

During 2018, 2017 and 2016, purchases of fuel-grade ethanol from our two largest third-party suppliers represented an aggregate of approximately 40%, 35% and 35% 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 2018, 2017 and 2016.

Pacific Ethanol Plants

The table below provides an overview of our nine ethanol production facilities. Our plants have an aggregate annual production capacity of up to 605 million gallons. All of our plants, with the exception of our Aurora East facility, are currently operating. As market conditions change, we may increase, decrease or idle production at one or more operating facilities or resume operations at any idled facility.

We wholly-own all of our plants located on the West Coast and the three plants in Pekin, Illinois. We own approximately 74% of the plants in Aurora, Nebraska as well as the grain elevator adjacent to those properties and related grain handling assets, including the outer rail loop, and the real property on which they are located, through Pacific Aurora, an entity owned approximately 26% by ACEC.

	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

	Pekin Wet Facility	Pekin Dry Facility	Pekin ICP Facility	Aurora West Facility	Aurora East Facility
Location	Pekin, IL	Pekin, IL	Pekin, IL	Aurora, NE	Aurora, NE
Approximate maximum annual ethanol production capacity (in millions of gallons)	100	60	90	110	45
Production milling process	Wet	Dry	Dry	Dry	Dry
Primary energy source	Natural Gas	Natural Gas	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, the market price of ethanol is volatile and subject to large fluctuations, and 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 $1.20 to $1.53 per gallon during 2018, from $1.26 to $1.67 per gallon during 2017 and from $1.31 to $1.75 per gallon during 2016; and corn prices, as reported by the CBOT, ranged from $3.30 to $4.09 per bushel during 2018, from $3.30 to $3.92 per bushel during 2017 and from $3.02 to $4.38 per bushel during 2016.

Marketing Arrangements

We market all the ethanol and specialty alcohols produced at our production facilities. In addition, we have exclusive ethanol marketing agreements with two third-party ethanol producers, Calgren Renewable Fuels, LLC and Aemetis 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. Aemetis 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, POET, LLC, Green Plains Inc. and Valero Renewable Fuels Company, LLC, collectively with approximately 38% 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 16.5 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-intensity 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 be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products 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 located 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 plant locations on the West Coast, 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 RFS. The 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 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.

Policy discussion has begun in the 116th Congress aimed at shifting national power generation to renewable sources and to decarbonize manufacturing and agricultural industries. On February 7, 2019, Democrats in both the House and Senate introduced non-binding resolutions, H.Res. 109 and S.Res. 59, *Recognizing the duty of the Federal Government to create a Green New Deal.* The resolutions, referred to as the Green New Deal, outline these goals by providing a blueprint to transition the United States to a 100 percent clean energy system. Expanding from this policy, recently the *Utilizing Significant Emissions with Innovative Technologies (USE IT) Act* was introduced in both chambers. The *USE IT Act* aims to spur the development and demonstration of carbon capture and removal technologies. This legislation has the potential to benefit ethanol producers, as well as a large group of other stakeholders by authorizing grants for these technologies and by streamlining the permitting process for building pipelines that move sequestered carbon. The bills have been referred to their respective congressional subcommittees where they await further consideration.

A bill titled the *Consumer Protection and Fuel Transparency Act of 2019 (H.R 1024),* was introduced on February 6, 2019, which would require the EPA Administrator to revise labeling requirements for fuel pumps that dispense gasoline that contains up to 15% ethanol by volume, or E15. Specifically, the legislation would require labels for fuel pumps that dispense E15 to include the word "WARNING" and "check your owner's manual." In addition, the bill would require the EPA to develop a public education campaign on the supposed risks associated with improper E15 use. EPA gave final approval in 2012 to the use of E15 fuel and the fuel blend is now sold in 30 states. The EPA is already required to label at the pump therefore we believe this bill could confuse consumers and retailers who opt to use E15. This bill was referred to a congressional subcommittee where it awaits further consideration.

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, 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 a majority of states. At the end of 2018, there were over 1,500 stations offering E15 across 30 states. The number of retailers offering E15 is anticipated to exceed 2,000 in 2019.

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 LCFS for transportation fuels. California's LCFS 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 consider extending California's LCFS through 2030, applying aggressive new carbon intensity reduction targets for the final 10 years. Additional LCFS updates became effective in early January 2019 which require fuel suppliers to reduce the carbon intensity of transportation fuels to 20% below 2010 levels by 2030. 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, which began in 2016.

A program similar to California's LCFS 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, 2019, we had approximately 510 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 35% of our employees are presently represented by a labor union and 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

If we are unable to timely implement our strategic realignment initiative and raise sufficient capital on suitable terms, we will likely have insufficient liquidity to operate our business through the next twelve months, or earlier, resulting in a material adverse effect on our business, prospects, financial condition and results of operations, which could result in a need to seek protection under the U.S. Bankruptcy Code.

We are engaged in a strategic realignment of our business to reduce our debt levels and provide additional liquidity to operate our business. This initiative will likely require the prompt sale of certain production assets as well as other capital raising activities. Financing, whether through a sale of production assets or other capital raising activities, may not be available on a timely basis, in sufficient amounts, on terms acceptable to us, or at all. In addition, any equity financing may cause significant dilution to existing stockholders and any debt financing or other financing of securities senior to our common stock will likely include financial and other covenants that will restrict our flexibility, including our ability to pay dividends on our common stock.

If we are unable to timely sell production assets or raise additional capital, or both, in sufficient amounts and on suitable terms, if margins do not improve, or if we are unable to further defer principal and/or interest payments or extend the maturity date on our debt, we will likely have insufficient liquidity to operate our business through the next twelve months, or earlier depending on margins, operating cash flows and lender forbearance. A failure to timely implement our strategic realignment on suitable terms will have a material adverse effect on our business, prospects, financial condition and results of operations and could result in a need to seek protection under the U.S. Bankruptcy Code for all or some portion of our production asset and other subsidiaries, at the parent company level, or both.

We may not have sufficient liquidity to satisfy our obligations under our senior secured notes.

We are obligated to make interest payments of approximately $2.0 million per quarter under our senior secured notes. In addition, the entire outstanding principal amount of the notes, currently approximately $64.5 million, is due and payable on December 15, 2019. Our obligations under these notes are direct obligations of Pacific Ethanol, Inc. and are secured by our ownership interests in our West Coast production assets. Our ability to pay the amounts due under the notes will be subject to our liquidity position at the time. We cannot assure you that we will have sufficient financial resources or that we will be able to sell production assets or arrange financing to pay the amounts due under the notes. If we are unable to pay the amounts due under the notes, our lenders could pursue a claim directly against Pacific Ethanol, Inc. and foreclose on their security interest in our West Coast production assets resulting in a loss of those assets, which would have a material adverse effect on our business, prospects, financial condition and results of operations. In addition, we may be forced to seek protection under the U.S. Bankruptcy Code.

We are out of compliance with our debt obligations associated with our Pekin facilities. If our lender pursues its remedies, we could lose our Pekin production assets, which would have a material adverse effect on our business, prospects, financial condition and results of operations

We were not in compliance with our financial covenants at December 31, 2018 under our debt obligations associated with our Pekin facilities. In addition, we have not made a $3.5 million principal payment initially due in February 2019, the due date of which was extended to March 11, 2019. Our debt obligations associated with these facilities total approximately $75.0 million and are secured by our Pekin production assets. These violations have not been waived and our lender has not agreed to further forbear from pursuing its remedies. Our lender could declare all debt obligations due and payable and foreclose on its security interest in our Pekin production assets which would force us to seek protection under the U.S. Bankruptcy Code for our Pekin subsidiaries and could result in a loss of those assets, any of which would have a material adverse effect on our business, prospects, financial condition and results of operations.

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 years ended December 31, 2018 and 2017, we incurred consolidated net losses of approximately $68.0 million and $38.1 million, respectively. We may incur losses and negative operating cash flow in the future. We expect to rely on cash on hand, cash, if any, generated from our operations, borrowing availability under our lines of credit and proceeds from future financing activities, if any, 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 other ethanol co-products at some or all of our plants.

Increased ethanol production or higher inventory levels 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. 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 16.1 billion gallons in 2018. In addition, if ethanol production margins improve, we anticipate that owners of ethanol production facilities will increase production levels, thereby resulting in more abundant ethanol supplies and inventories. Any increase in the supply of ethanol may not be commensurate with increases in the demand for 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 $1.20 to $1.53 per gallon during 2018, $1.26 to $1.67 per gallon during 2017 and $1.31 to $1.75 per gallon during 2016. 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 production or distribution 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 and specialty alcohols also requires a significant and uninterrupted supply of other raw materials and energy, primarily water, electricity and natural gas. 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. During 2014, poor weather caused disruptions in rail transportation, which slowed the delivery of ethanol by rail, the principle manner by which ethanol from our plants located in the Midwest is transported to market. Disruptions in production or distribution 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 could delay transport of our products to market, and may require us to halt production at one or more plants, any of 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 and financial condition.

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. In addition, our open contract positions may require cash deposits to cover margin calls, negatively impacting our liquidity. As a result, our results of operations and financial condition may be adversely affected by our hedging activities and 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, specialty alcohols and 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.

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

Our business following recent acquisitions is larger than the individual businesses of Pacific Ethanol and the acquired companies prior to the acquisitions. Our future success depends, in part, upon our ability to manage our expanded business, which may pose continued 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 plant indebtedness exposes us to many risks that could negatively impact our business, our business prospects, our liquidity and our cash flows and results of operations.

Our plants located in the Midwest have significant indebtedness. Unlike traditional term debt, the terms of our plant loans require amortizing payments of principal over the lives of the loans and our borrowing availability under our plant credit facilities periodically and automatically declines through the maturity dates of those facilities. Our plant indebtedness 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 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;

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; and/or

limit our ability to procure additional financing for working capital or other purposes.

Our term loans and credit facilities also require compliance with numerous financial and other covenants. In addition, our plant indebtedness bears interest at variable rates. An increase in prevailing interest rates would likewise increase our debt service obligations and could materially and adversely affect our cash flows and results of operations.

Our ability to generate sufficient cash to make all principal and interest payments when due depends on our business performance, which is subject to a variety of factors beyond our control, including the supply of and demand for ethanol and co-products, ethanol and co-product prices, the cost of key production inputs, and many other factors incident to the ethanol production and marketing industry. We cannot provide any assurance that we will be able to timely satisfy such obligations. Our failure to timely satisfy our debt obligations could have a material adverse effect on our business, business prospects, liquidity, cash flows and results of operations.

If Kinergy 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 Kinergy’s credit facility to help finance its operations. Kinergy must satisfy monthly financial covenants under its credit facility, including fixed-charge coverage ratio covenants. Kinergy 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 Kinergy’s credit facility, or a significant reduction in Kinergy’s borrowing capacity under the facility, would result in Kinergy’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 RFS pursuant to the Energy Policy Act of 2005 and the Energy Independence and Security Act of 2007. The 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 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 price of ethanol relative to the price of gasoline, the relative octane value of ethanol, constraints in the ability of vehicles to use higher ethanol blends, the RFS, and other applicable environmental requirements. Any significant increase in production capacity above the RFS minimum requirements may have an adverse impact on ethanol prices.

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 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. Our results of operations, cash flows and financial condition could be adversely impacted if the EPA reduces the RFS requirements from the statutory levels specified in the 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.

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, POET, LLC, Green Plains, Inc. and Valero Renewable Fuels Company, LLC, 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 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.

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, 2018, of our $183.2 million of federal NOLs, we had $88.5 million of federal NOLs that are limited in their annual use under Section 382 of the Code beyond 2019. 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.

***Our business is not diversified. 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*.**

Our business is not diversified. Our sales are highly concentrated within the ethanol production and marketing industry. We expect to be substantially focused on the production and marketing of ethanol and its co-products for the foreseeable future. An industry shift away from ethanol, or the emergence of new competing products, may significantly reduce the demand for ethanol. However, we may be unable to timely alter our business focus away from the production and marketing of ethanol to other renewable fuels or competing products. 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. 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 2018, 2017 and 2016, two customers accounted for an aggregate of approximately $367 million, $447 million and $467 million in net sales, representing 25%, 27% and 29% 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 volume or dollar value of ethanol or co-products, 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.

We incur significant expenses to maintain and upgrade our operating equipment and plants, and any interruption in the operation of our facilities may harm our operating performance.

We regularly incur significant expenses to maintain and upgrade our equipment and facilities. The machines and equipment we use to produce our products are complex, have many parts and some are run on a continuous basis. We must perform routine maintenance on our equipment and will have to periodically replace a variety of parts such as motors, pumps, pipes and electrical parts. In addition, our facilities require periodic shutdowns to perform major maintenance and upgrades. These scheduled facility shutdowns result in decreased sales and increased costs in the periods in which a shutdown occurs and could result in unexpected operational issues in future periods as a result of changes to equipment and operational and mechanical processes made during the shutdown period.

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 ramifications of these risks are greater in magnitude 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, loans or advances to us by the terms of their financing arrangements. At December 31, 2018, we had approximately $190.2 million of net assets at our subsidiaries that were not available to be distributed in the form of dividends, distributions, loans or advances due to restrictions contained in 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;
- changes in market valuations of companies similar to us;
- stock market price and volume fluctuations generally;
- regulatory developments or increased enforcement;
- fluctuations in our quarterly or annual operating results;

the timing and results of our strategic realignment initiative;

additions or departures of key personnel;

our ability to obtain any necessary financing;

our financing activities and future sales of our common stock or other securities, as well as stockholder dilution; and

our ability to maintain contracts that are critical to our operations.

Demand for ethanol could 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 and annual 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.

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 2018 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 2029. We have plants 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. We also have plants located in Pekin, Illinois at facilities totaling 145 acres and Aurora, Nebraska, at a 96 acre facility. We own the land in Pekin, Illinois and Aurora, Nebraska, as well as the grain handling facility, loop track and the real property on which they are located in 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 our ethanol production facilities. See “Business—Pacific Ethanol Plants.”

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.

People of the State of Illinois v. Pacific Ethanol Pekin, LLC, case no. 18-CH-06, was filed on January 8, 2018 in the Circuit Court for the 10th Judicial Circuit in Tazewell County, Illinois. The Illinois Attorney General, on behalf of the People of the State of Illinois, alleges violations of the Pekin facility’s NPDES permit and water pollution associated with the facility’s discharge. Most of the alleged violations relate to thermal limits set forth in the permit. The complaint seeks a cease and desist order and damages for the alleged violations in accordance with statutory limits under the Illinois Environmental Protection Act. On August 20, 2018, the court entered an agreed Interim Order which stayed the proceedings. The Interim Order requires us to submit a proposed amendment to the facility’s NPDES permit which, if approved by the Illinois Environmental Protection Agency, would modify the thermal limits in the permit to allow the facility to operate in compliance with the permit requirements. The order also requires us to undertake certain initial remedial actions. We have submitted a proposed permit amendment, which is currently under review by the Illinois Environmental Protection Agency.

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, 2018:		
First Quarter (January 1 – March 31)	$4.75	$2.75
Second Quarter (April 1 – June 30)	$3.95	$2.40
Third Quarter (July 1 – September 30)	$3.00	$1.55
Fourth Quarter (October 1 – December 31)	$3.24	$0.76
Year Ended December 31, 2017:		
First Quarter	$10.05	$6.50
Second Quarter	$7.45	$5.63
Third Quarter	$7.50	$4.15
Fourth Quarter	$6.00	$4.10

Security Holders

As of March 14, 2019, we had 48,890,428 shares of common stock outstanding held of record by approximately 210 stockholders and 896 shares of non-voting common stock outstanding held of record by one stockholder. 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, 2019, the closing sales price of our common stock on The NASDAQ Capital Market was $1.12 per share.

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 2018, 2017 and 2016, 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, 2018, 2017, 2016, 2015 and 2014.

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,				
	2018	**2017**	**2016**	**2015**	**2014**
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Net sales	$1,515,371	$1,632,255	$1,624,758	$1,191,176	$1,107,412
Cost of goods sold	1,530,535	1,626,324	1,570,400	1,180,810	995,695
Gross profit (loss)	(15,164)	5,931	54,358	10,366	111,717
Selling, general and administrative expenses	36,373	31,516	30,849	26,368	20,340
Asset impairment	—	—	—	1,970	—
Income (loss) from operations	(51,537)	(25,585)	23,509	(17,972)	91,377
Fair value adjustments and warrant inducements	—	473	(557)	1,641	(37,532)
Interest expense, net	(17,132)	(12,938)	(22,406)	(12,594)	(9,438)
Loss on extinguishments of debt	—	—	—	—	(2,363)
Other income (expense), net	171	(345)	(1)	18	(905)
Income (loss) before provision for income taxes	(68,498)	(38,395)	545	(28,907)	41,139

Provision (benefit) for income taxes	(562)	(321)	(981)	(10,034)	15,137
Consolidated net income (loss)	(67,936)	(38,074)	1,526	(18,873)	26,002
Net (income) loss attributed to noncontrolling interests	7,663	3,110	(107)	87	(4,713)
Net income (loss) attributed to Pacific Ethanol, Inc.	$(60,273)	$(34,964)	$1,419	$(18,786)	$21,289
Preferred stock dividends	(1,265)	(1,265)	(1,269)	(1,265)	(1,265)
Income allocated to participating securities	—	—	(2)	—	(585)
Income (loss) available to common stockholders	$(61,538)	$(36,229)	$148	$(20,051)	$19,439
Income (loss) per share, basic	$(1.42)	$(0.85)	$0.00	$(0.60)	$0.93
Income (loss) per share, diluted	$(1.42)	$(0.85)	$0.00	$(0.60)	$0.86
Weighted-average shares outstanding, basic	43,376	42,745	42,182	33,173	20,810
Weighted-average shares outstanding, diluted	43,376	42,745	42,251	33,173	22,669
Consolidated Balance Sheet Data:					
Cash and cash equivalents	$26,627	$49,489	$64,259	$52,712	$62,084
Working capital (deficit)	$(63,055)	$112,540	$156,360	$125,033	$112,498
Total assets	$659,981	$720,296	$708,238	$674,680	$297,540
Long-term debt, net of current portion	$84,767	$221,091	$188,028	$203,861	$34,177
Stockholders' equity	$319,365	$383,700	$418,261	$371,544	$217,982

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.

Recent Developments

We and the ethanol industry as a whole experienced significant adverse conditions throughout most of 2018 as a result of industry-wide record low ethanol prices due to reduced demand and high industry inventory levels. These factors resulted in prolonged negative operating margins, significantly lower cash flow from operations and substantial net losses. In response to these adverse conditions, we have initiated and expect to complete over the next six months a strategic realignment of our business. Our primary focus is the potential sale of certain production assets, a reduction of our debt levels, a strengthening of our cash and liquidity, and opportunities for strategic partnerships and capital raising activities, positioning us to optimize our business performance. We believe we have excellent production assets with values well in excess of our near term liquidity needs. We are also confident in our strong relationships with our financial and commercial partners and believe we are taking the appropriate steps to increase our shareholder value to benefit all of our stakeholders long-term and to provide greater financial flexibility to execute future strategic initiatives.

We believe our strategic realignment, if implemented timely and on suitable terms, will provide sufficient liquidity to meet our anticipated working capital, debt service and other liquidity needs through at least the next twelve months. However, if we are unable to timely implement our strategic realignment on suitable terms, if margins do not improve, or if we are unable to further defer principal and/or interest payments or extend the maturity date on our debt, we will likely have insufficient liquidity through the next twelve months, or earlier depending on margins, operating cash flows and lender forbearance. In addition, if margins do not improve from current levels, we may be forced to curtail our production at one or more of our operating facilities. See “Risk Factors” and “—Liquidity and Capital Resources”.

Overview

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

We operate nine strategically-located production facilities. Four of our plants are in the Western states of California, Oregon and Idaho, and five of our plants are located in the Midwestern states of Illinois and Nebraska. We are the sixth largest producer of ethanol in the United States based on annualized volumes. Our plants have a combined production capacity of 605 million gallons per year. We market all the ethanol, specialty alcohols and co-products produced at our plants as well as ethanol produced by third parties. On an annualized basis, we market nearly 1.0 billion gallons of ethanol and over 3.0 million tons of 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 be a leading producer and marketer of low-carbon renewable fuels, high-value animal feed and high-quality alcohol products in the United States. We intend to accomplish this goal in part by investing in our ethanol production and distribution infrastructure, 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, specialty alcohols and co-products at our production facilities described below. Our plants located on the West Coast are near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages. Our plants located in the Midwest are 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 our plants located in the Midwest, and barges from our Pekin, Illinois plants, allows for greater access to international markets.

We wholly-own all of our plants located on the West Coast and the three plants in Pekin, Illinois. We own approximately 74% of the two plants in Aurora, Nebraska as well as the grain elevator adjacent to those properties and related grain handling assets, including the outer rail loop, and the real property on which they are located, through Pacific Aurora, LLC, or Pacific Aurora, an entity owned approximately 26% by Aurora Cooperative Elevator Company.

All of our plants, with the exception of our Aurora East facility, are currently operating. As market conditions change, we may increase, decrease or idle production at one or more operating facilities or resume operations at any idled facility.

Facility Name	Facility Location	Estimated Annual Capacity (gallons)
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
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
Pekin ICP	Pekin, IL	90,000,000

We produce ethanol co-products at our production facilities such as wet distillers grains, or WDG, dried distillers grains with solubles, or DDGS, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, dried yeast and CO_2.

Marketing Segment

We market ethanol, specialty alcohols and co-products produced by our 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 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 4 – Segments” to our Notes to Consolidated Financial Statements included elsewhere in this report for financial information about our business segments.

Current Initiatives and Outlook

We and the ethanol industry as a whole experienced significant adverse conditions throughout most of 2018 as a result of record low ethanol prices due to reduced demand and high industry inventory levels primarily related to United States and China trade disputes which resulted in early April in additional tariffs placed on United States ethanol shipped to China, halting exports to China in 2018. In addition, the EPA’s continued practice of granting small refinery exemptions from the RFS negatively impacted demand and ethanol margins. These factors resulted in prolonged negative operating margins, significantly lower cash flow from operations and substantial net losses in the fourth quarter and for all of 2018.

In response to these adverse conditions, we moderated production in locations most impacted by high inventory levels and where we were not contractually committed. Overall, we are operating at 85% of production capacity across our plants. In addition, we have initiated and expect to complete over the next six months a strategic realignment of our business. Our primary focus is the potential sale of certain production assets, a reduction of our debt levels, a strengthening of our cash and liquidity, and opportunities for strategic partnerships and capital raising activities, positioning us to optimize our business performance. We believe we have excellent production assets with values well in excess of our near-term liquidity needs. We are also confident in our strong relationships with our financial and commercial partners and believe we are taking appropriate steps to increase shareholder value to benefit our stakeholders long-term and to provide greater financial flexibility to execute future strategic initiatives.

Consumption of United States-produced ethanol reached 16.2 billion gallons in 2018, which is 300 million gallons more than in 2017, largely resulting from steady domestic sales and record exports of 1.7 billion gallons. Global octane demand continues to grow as ethanol is the lowest-cost and cleanest burning source of octane in the market.

We expect further growth in export markets once trade disputes with China are resolved, reopening a large market for United States ethanol as China continues toward 10% ethanol blend rates, which would require over 4.0 billion gallons of ethanol annually. China’s current domestic production capacity is only 1.0 billion gallons, therefore the region represents a significant market opportunity for United States ethanol producers. Prior to the United States and China trade disputes, China was on track to import 200-300 million gallons of ethanol in 2018, but in total only imported approximately 50 million gallons for the year. A reasonably quick resolution to these trade disputes could add up to 300 million gallons of incremental ethanol demand in 2019 which could grow to as much as 1.0 billion gallons in 2020.

The EPA recently released a proposed rule to facilitate the year-round use of E15, reconfirming its commitment to a final rule by June 1st in advance of the summer driving season. We are confident that the EPA will adopt a final rule allowing year-round use of E15, which if timely adopted will result in additional demand this summer and the acceleration of higher blend rates.

Carbon values in our West Coast markets remain strong, resulting in robust premiums for our lower-carbon ethanol. In California, LCFS updates became effective in early January targeting reductions of at least 20% in the carbon intensity of fuels by 2030 compared to a 2010 baseline. We expect approval of a State of Washington clean fuels program, which would make Washington the third state with such a program, together with California and Oregon. Other states are also considering similar low carbon fuel programs. In addition, Canada is finalizing a nationwide clean fuels program with implementation expected in 2022.

Overall, industry fundamentals remain strong and should support better margins in 2019 as ethanol remains a low-cost, high-value, low-carbon renewable fuel and source of octane which reduces the price of gasoline to consumers. We believe these compelling blend economics will drive higher domestic and international blend rates and result in an improved margin environment.

We continue to focus on implementing initiatives and investing in our assets to reduce costs, both at the operating and corporate levels; further diversifying our sales through additional high-protein animal feed and high-quality alcohol products; and improving yields and our carbon scores.

2018 Financial Performance Summary

Summary

Our consolidated net sales declined to $1.5 billion for 2018 compared to $1.6 billion for 2017. Our net loss available to common stockholders increased by $25.2 million from $36.3 million for 2017 to $61.5 million for 2018.

Factors that contributed to our results of operations for 2018 include:

Net sales. Our net sales for 2018 declined 7% to $1.5 billion for 2018 from $1.6 billing for 2017 as a result of a decrease in total gallons sold and a decrease in our average sales price per gallon. Our total gallons sold declined 7% to 883 million gallons for 2018 from 952 million gallons for 2017. Our third-party ethanol sales volume decreased 23% to 327 million gallons for 2018 from 425 million gallons for 2017, partially offset by a 6% increase in our production sales volume to 556 million gallons for 2018 from 527 million gallons for 2017. The decrease in third-party sales volume was due to an intentional reduction in less profitable third-party sales. Our increased production sales volume was primarily due to having a full year of sales volume from Illinois Corn Processing, LLC, or ICP, a production facility we acquired in July 2017.

Gross profit margin. Our gross profit margin declined to negative 1.0% for 2018 from a gross profit margin of 0.4% for 2017. The decline in our gross profit margin was primarily the result of lower corn crush margins compared to 2017resulting from both lower average ethanol sales prices and an increased cost of corn per bushel.

Selling, general and administrative expenses. Our selling, general and administrative expenses, or SG&A expenses, increased by $4.9 million to $36.4 million for 2018, as compared to $31.5 million for 2017, primarily as a result of a $3.6 million gain recorded in 2017 associated with legal matters successfully resolved in 2017. In addition, our SG&A expenses for 2018 included a full year of expenses related to ICP's business as well as higher legal costs associated with boiler defect litigation.

Interest expense. Our interest expense increased by $4.2 million to $17.1 million for 2018 from $12.9 million for 2017. This increase is primarily due to additional borrowings related to our ICP acquisition and higher interest rates on our senior notes, which increased in accordance with the note terms.

Sales and Margins

We generate sales by marketing all the ethanol produced by our 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 high-quality alcohol products and ethanol co-products, including WDG and DDGS, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, corn oil, dried yeast and CO_2, 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 declined by 3% to $1.57 per gallon for 2018 compared to $1.62 per gallon for 2017. The average price of ethanol as reported by the Chicago Board of Options Trade, or CBOT, declined by 9% to $1.37 per gallon for 2018 compared to $1.50 per gallon for 2017. Our average cost of corn increased 2% to $3.91 per bushel for 2018 from $3.82 per bushel for 2017. The average price of corn as reported by the CBOT increased nearly 3% to $3.68 per bushel for 2018 from $3.59 per bushel for 2017.

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 Illinois Corn Processing, LLC

We closed our acquisition of ICP on July 3, 2017 and, as a result, our results of operations for 2017 include ICP's results of operations only for the period from July 3, 2017 through December 31, 2017.

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	
	2018	2017	2016	2018 vs 2017	2017 vs 2016
Production gallons sold (in millions)	556.2	527.2	484.1	5.5 %	8.9 %
Third-party gallons sold (in millions)	326.8	424.8	440.4	(23.1)%	(3.5)%
Total gallons sold (in millions)	883.0	952.0	924.5	(7.2)%	3.0 %
Total gallons produced (in millions)	554.3	531.0	477.6	4.4 %	11.2 %
Production capacity utilization	92 %	99 %	93 %	(7.1)%	6.5 %
Average sales price per gallon	$1.57	$1.62	$1.67	(3.1)%	(3.0)%
Corn cost per bushel—CBOT equivalent	$3.66	$3.62	$3.63	1.1 %	(0.3)%
Average basis[1]	$0.25	$0.20	$0.27	25.0 %	(25.9)%
Delivered cost of corn	$3.91	$3.82	$3.90	2.4 %	(2.1)%
Total co-product tons sold (in thousands)	3,096.2	3,008.5	2,760.6	2.9 %	9.0 %
Co-product revenues as % of delivered cost of corn[2]	36.5 %	34.5 %	35.1 %	5.8 %	(1.7)%
Average CBOT ethanol price per gallon	$1.37	$1.50	$1.51	(8.7)%	(0.7)%
Average CBOT corn price per bushel	$3.68	$3.59	$3.58	2.5 %	0.3 %

(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, 2018 Compared to the Year Ended December 31, 2017

	Years Ended December 31, 2018	Years Ended December 31, 2017	Dollar Change Favorable (Unfavorable)	Percentage Change Favorable (Unfavorable)	Results as a Percentage of Net Sales for the Years Ended December 31, 2018	Results as a Percentage of Net Sales for the Years Ended December 31, 2017
	(dollars in thousands)					
Net sales	$1,515,371	$1,632,255	$(116,884)	(7.2)%	100.0%	100.0%
Cost of goods sold	1,530,535	1,626,324	95,789	5.9%	101.0%	99.6%
Gross profit (loss)	(15,164)	5,931	(21,095)	NM	(1.0)%	0.4%
Selling, general and administrative expenses	36,373	31,516	(4,857)	(15.4)%	2.4%	1.9%
Loss from operations	(51,537)	(25,585)	(25,952)	(101.4)%	(3.4)%	(1.6)%
Fair value adjustments	—	473	(473)	(100.0)%	0.0%	0.0%
Interest expense, net	(17,132)	(12,938)	(4,194)	(32.4)%	(1.1)%	(0.8)%
Other income (expense), net	171	(345)	516	NM	0.0%	(0.0)%
Loss before provision (benefit) for income taxes	(68,498)	(38,395)	(30,103)	(78.4)%	(4.5)%	(2.4)%
Provision (benefit) for income taxes	(562)	(321)	241	75.1%	0.0%	(0.0)%
Consolidated net loss	(67,936)	(38,074)	(29,862)	(78.4)%	(4.5)%	(2.3)%
Net loss attributed to noncontrolling interests	7,663	3,110	4,553	146.4%	0.5%	0.2%
Net loss attributed to Pacific Ethanol, Inc.	$(60,273)	$(34,964)	$(25,309)	(72.4)%	(4.0)%	(2.1)%
Preferred stock dividends	(1,265)	(1,265)	—	—%	(0.1)%	(0.1)%
Loss available to common stockholders	$(61,538)	$(36,229)	$(25,309)	(69.9)%	(4.1)%	(2.2)%

Net Sales

The decrease in our consolidated net sales for 2018 as compared to 2017 was primarily due to a decrease in our total gallons sold and a decrease in our average sales price per gallon.

We increased production gallons sold and our volume of co-products sold, for 2018 as compared to 2017, while decreasing third-party gallons sold. The increases in production gallons and co-products sold are primarily due to a full year of sales volume from ICP, plus the timing of finished goods inventory from period to period. We decreased third-party gallons sold due to an intentional reduction in less profitable third party sales.

Production Segment

Net sales of ethanol from our production segment increased by $14.1 million, or 2%, to $859.8 million for 2018 as compared to $845.7 million for 2017. Our total volume of production gallons sold increased by 29.0 million gallons, or 6%, to 556.2 million gallons for 2018 as compared to 527.2 million gallons for 2017. At our production segment's average sales price per gallon of $1.55 for 2018, we generated $44.8 million in additional net sales from our production segment from the 29.0 million additional gallons of produced ethanol sold in 2018 as compared to 2017. The decline of $0.06, or 4%, in our production segment's average sales price per gallon in 2018 as compared to 2017 reduced our net sales from our production segment by $30.7 million.

Net sales of co-products increased $39.7 million, or 15%, to $296.7 million for 2018 as compared to $257.0 million for 2017. Our total volume of co-products sold increased by 0.1 million tons to 3.1 million tons for 2018 from 3.0 million tons for 2017. At our average sales price per ton of $95.82 for 2018, we generated $8.4 million in additional net sales from the 0.1 million additional tons of co-products sold in 2018 as compared to 2017. The increase of $10.39, or 12%, in our average sales price per ton in 2018 as compared to 2017 increased our net sales from our production segment by $31.3 million.

Marketing Segment

Net sales of ethanol from our marketing segment, excluding intersegment sales, decreased by $170.6 million, or 32%, to $358.9 million for 2018 as compared to $529.5 million for 2017.

Our volume of third party ethanol gallons sold reported gross by our marketing segment decreased by 103.8 million gallons, or 33%, to 206.1 million gallons for 2018 as compared to 309.9 million gallons for 2017. At our marketing segment's average sales price per gallon of $1.73 for 2018, we generated $179.8 million in lower net sales from our marketing segment from the 103.8 million gallon reduction in third-party ethanol sold gross in 2018 as compared to 2017.

Our volume of third party ethanol gallons sold reported net by our marketing segment increased by 5.8 million gallons, or 5%, to 120.7 million gallons for 2018 as compared to 114.9 million gallons for 2017. The increase in third party ethanol gallons sold reported net contributed an additional $0.2 million in net sales.

The increase of $0.03 per gallon, or 2%, in our marketing segment's average sales price per gallon in 2018 as compared to 2017 increased our net sales from third-party ethanol sold by our marketing segment by $9.0 million.

Cost of Goods Sold and Gross Profit (Loss)

Our consolidated gross profit (loss) declined to a gross loss of $15.2 million for 2018 from a gross profit of $5.9 million for 2017, representing a gross profit margin of negative 1.0% for 2018 compared to a gross profit margin of 0.4% for 2017. Our consolidated gross profit (loss) decreased primarily due to significantly lower crush margins during the year resulting from lower ethanol prices and higher corn costs. In addition, for the years ended December 31, 2018 and 2017, cost of goods sold included approximately $4.8 million and $10.7 million, respectively, of larger than anticipated repair and maintenance related expenses to replace faulty equipment.

Production Segment

Our production segment's gross profit declined by $42.0 million to a gross loss of $39.0 million for 2018 as compared to gross profit of $3.0 million for 2017. All of this decline is attributable to lower margins, including with respect to the 29.0 million gallon increase in production volumes sold in 2018 as compared to 2017.

Marketing Segment

Our marketing segment’s gross profit improved by $20.9 million to $23.8 million for 2018 as compared to $2.9 million for 2017. Of this improvement, $32.9 million is attributable to improved third party sales margins, partially offset by $12.0 million attributable to decreased third party marketing volumes in 2018 as compared to 2017.

Selling, General and Administrative Expenses

Our SG&A expenses increased $4.9 million to $36.4 million for 2018 as compared to $31.5 million for the same period in 2017. The increase in SG&A expenses is primarily due to $3.6 million in one-time gains associated with legal matters resolved in 2017 that reduced our SG&A expenses for 2017. In addition, our SG&A expenses for 2018 include a full year of ICP-related expenses as well as increased legal costs associated with our boiler defect litigation.

We expect SG&A expenses of $9.0 million for the first quarter of 2019.

Interest Expense, net

Interest expense increased $4.2 million to $17.1 million for 2018 from $12.9 million for 2017. The increase in interest expense is primarily due to additional borrowings related to our acquisition of ICP on July 3, 2017, and higher interest rates on our senior notes, which increased in accordance with the note terms. In addition, in 2018, we realized higher interest expense of $0.3 million due to accelerated amortization of deferred financing costs associated with our termination of Pacific Aurora’s line of credit.

Provision (Benefit) for Income Taxes

In 2018, we incurred book and tax losses and as a result, we carried forward these tax losses, however, we were required to apply a valuation allowance against these net operating loss carryforwards until the realizability of these losses is more likely than not.

Net Loss Attributed to Noncontrolling Interests

Net loss attributed to noncontrolling interests relates to our consolidated treatment of Pacific Aurora. Beginning in 2016, we consolidated the assets associated with Pacific Aurora before and after the admission of a 26% equity owner of Pacific Aurora. As a result, we reduced our consolidated net loss for the noncontrolling interests, which were the ownership interests that we did not own.

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 2018 and 2017 in respect of our Series B Preferred Stock.

Year Ended December 31, 2017 Compared to the Year Ended December 31, 2016

	Years Ended December 31, 2017	2016	Dollar Change Favorable (Unfavorable)	Percentage Change Favorable (Unfavorable)	Results as a Percentage of Net Sales for the Years Ended December 31, 2017	2016
	(dollars in thousands)					
Net sales	$1,632,255	$1,624,758	$ 7,497	0.5 %	100.0 %	100.0 %
Cost of goods sold	1,626,324	1,570,400	(55,924)	(3.6)%	99.6 %	96.7 %
Gross profit	5,931	54,358	(48,427)	(89.1)%	0.4 %	3.3 %
Selling, general and administrative expenses	31,516	30,849	(667)	(2.2)%	1.9 %	1.9 %
Income (loss) from operations	(25,585)	23,509	(49,094)	NM	(1.6)%	1.4 %
Fair value adjustments	473	(557)	1,030	NM	0.0 %	(0.0)%
Interest expense, net	(12,938)	(22,406)	9,468	42.3 %	(0.8)%	(1.4)%
Other expense, net	(345)	(1)	(344)	NM	(0.0)%	(0.0)%
Income (loss) before provision (benefit) for income taxes	(38,395)	545	(38,940)	NM	(2.4)%	0.0 %
Provision (benefit) for income taxes	(321)	(981)	(660)	(67.3)%	(0.0)%	(0.1)%
Consolidated net income (loss)	(38,074)	1,526	(39,600)	NM	(2.3)%	0.1 %
Net (income) loss attributed to noncontrolling interests	3,110	(107)	3,217	NM	0.2 %	(0.0)%
Net income (loss) attributed to Pacific Ethanol, Inc.	$(34,964)	$1,419	$ (36,383)	NM	(2.1)%	0.1 %
Preferred stock dividends	(1,265)	(1,269)	4	0.3 %	(0.1)%	(0.1)%
Income allocated to participating securities	—	(2)	2	—	— %	(0.0)%
Income (loss) available to common stockholders	$(36,229)	$148	$ (36,377)	NM	(2.2)%	0.0 %

Net Sales

The increase in our consolidated net sales for 2017 as compared to 2016 was primarily due to an increase in our total gallons sold, partially offset by a decrease in our average sales price per gallon.

We increased production gallons sold and our volume of co-products sold for 2017 as compared to 2016 while decreasing third-party gallons sold. The increases in our production gallons and co-products sold are primarily due to additional volumes from our ICP production facility. We decreased third-party gallons sold due to an intentional reduction in less profitable third party sales.

Production Segment

Net sales of ethanol from our production segment increased by $48.3 million, or 6%, to $845.7 million for 2017 as compared to $797.4 million for 2016. Our total volume of production gallons sold increased by 43.1 million gallons, or 9%, to 527.2 million gallons for 2017 as compared to 484.1 million gallons for 2016. At our production segment's average sales price per gallon of $1.60 for 2017, we generated $69.1 million in additional net sales from our production segment from the 43.1 million additional gallons of produced ethanol sold in 2017 as compared to 2016. The decline of $0.04, or 3%, in our production segment's average sales price per gallon in 2017 as compared to 2016 reduced our net sales from our production segment by $20.8 million.

Net sales of co-products increased $8.6 million, or 3%, to $257.0 million for 2017 as compared to $248.4 million for 2016. Our total volume of co-products sold increased by 0.2 million tons to 3.0 million tons for 2017 from 2.8 million tons for 2016. At our average sales price per ton of $84.43 for 2017, we generated $21.2 million in additional net sales from the 0.2 million additional tons of co-products sold in 2017 as compared to 2016. The decline of $4.56, or 5%, in our average sales price per ton in 2017 as compared to 2016 decreased our net sales from our production segment by $12.6 million.

Marketing Segment

Net sales of ethanol from our marketing segment, excluding intersegment sales, decreased by $49.5 million, or 9%, to $529.5 million for 2017 as compared to $579.0 million for 2016.

Our volume of third party ethanol gallons sold reported gross by our marketing segment decreased by 21.8 million gallons, or 7%, to 309.9 million gallons for 2017 as compared to 331.7 million gallons for 2016. At our marketing segment's average sales price per gallon of $1.70 for 2017, we generated $37.1 million in lower net sales from our marketing segment from the 21.8 million gallon reduction in third-party ethanol sold gross in 2017 as compared to 2016.

Our volume of third party ethanol gallons sold reported net by our marketing segment increased by 6.2 million gallons, or 6%, to 114.9 million gallons for 2017 as compared to 108.7 million gallons for 2016. The increase in third party ethanol gallons sold reported net contributed an additional $0.1 million in net sales.

The decline of $0.04 per gallon, or 2%, in our marketing segment's average sales price per gallon in 2017 as compared to 2016 reduced our net sales from third-party ethanol sold by our marketing segment by $12.5 million.

Cost of Goods Sold and Gross Profit

Our consolidated gross profit declined to $5.9 million for 2017 from $54.4 million for 2016, representing a gross margin of 0.4% for 2017 compared to 3.3% for 2016. Our consolidated gross profit decreased primarily due to significantly lower crush margins during the year resulting from lower ethanol prices. In addition, for the years ended December 31, 2017 and 2016, cost of goods sold included approximately $10.7 million and $7.4 million, respectively, of larger than anticipated repair and maintenance related expenses to replace faulty equipment.

Production Segment

Our production segment's gross profit declined by $40.3 million to $3.0 million for 2017 as compared to $43.3 million for 2016. Of this decline, $40.5 million is attributable to lower margins, offset slightly by $0.2 million in higher gross profit attributable to the 43.1 million gallon increase in production volumes sold in 2017 as compared to 2016.

Marketing Segment

Our marketing segment's gross profit declined by $8.1 million to $2.9 million for 2017 as compared to $11.0 million for 2016. Of this decline, $7.9 million is attributable to lower margins and $0.2 million is attributable to decreased third party marketing volumes in 2017 as compared to 2016.

Selling, General and Administrative Expenses

Our SG&A expenses increased $0.7 million to $31.5 million for 2017 as compared to $30.8 million for the same period in 2016. The increase in SG&A expenses is due to higher employee benefits, non-cash compensation and professional fees associated with our ICP acquisition, and higher overhead and other costs related to ICP's business, partially offset by $3.6 million in gains associated with legal matters resolved in the first quarter of 2017.

Interest Expense, net

Interest expense declined by $9.5 million to $12.9 million for 2017 from $22.4 million for 2016. The decline primarily resulted from the refinance of debt balances acquired in connection with our acquisition of our Midwest plants, in which we replaced existing debt with lower cost debt.

Provision (Benefit) for Income Taxes

In 2017, we incurred book and tax losses, yet there were no prior years for which to carry back these losses. As a result, we carried forward these tax losses, however, we were required to apply a valuation allowance against these net operating loss carryforwards until the realizability of these losses is more likely than not. Further, we revised the amount of our net deferred tax liabilities under the new Federal tax rates, and consequently recognized a gain on the reduction of these net tax liabilities of $0.3 million, resulting in a net tax benefit for 2017.

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 2017 and 2016 in respect of our Series B Preferred Stock.

Liquidity and Capital Resources

During 2018, we funded our operations primarily from cash on hand, cash generated from our operations and advances under our revolving credit facilities. Funds from these sources were also used to make capital expenditures, capital lease payments and principal payments on our term and revolving debt facilities.

Both we and the ethanol industry as a whole experienced significant adverse conditions throughout most of 2018 as a result of industry-wide record low ethanol prices due to reduced demand and high industry inventory levels primarily related to United States and China trade disputes and domestic ethanol demand destruction caused by EPA exemptions for small refineries. These factors resulted in prolonged negative operating margins, significantly lower cash flow from operations and substantial net losses.

In response to these adverse conditions, we have initiated and expect to complete over the next six months a strategic realignment of our business. Our primary focus is the potential sale of certain production assets, a reduction of our debt levels, a strengthening of our cash and liquidity, and opportunities for strategic partnerships and capital raising activities, positioning us to optimize our business performance. We believe we have excellent production assets with values well in excess of our near term liquidity needs. We are also confident in our strong relationships with our financial and commercial partners and believe we are taking the appropriate steps to increase our shareholder value to benefit all of our stakeholders long-term and to provide greater financial flexibility to execute future strategic initiatives.

Our current available capital resources consist of cash on hand and amounts available for borrowing under our credit facilities. We expect that our future available capital resources will consist primarily of our current cash balances, availability under our lines of credit, cash generated from operations, net cash proceeds from any sale of production assets and net cash proceeds from any equity sales or debt financing transactions.

At December 31, 2018, on a consolidated basis, we had an aggregate of $26.6 million in cash and Kinergy had $10.2 million in excess availability under its credit facility.

As of December 31, 2018, our current liabilities of $231.9 exceeded our current assets of $168.8 million, resulting in a working capital deficit of $63.1 million. This working capital deficit arises from:

Our senior secured notes in the amount of $66.9 million at December 31, 2018 are due on December 15, 2019 and therefore listed as current liabilities. We believe we are in compliance with the terms of these notes. We intend to repay these notes on or before their maturity using the net proceeds from the results of our strategic realignment.

Our term loan in the amount of $43.0 million and our revolving loan in the amount of $32.0 million, both associated with our Pekin facilities, are listed as current liabilities due to certain covenant violations at December 31, 2018. In addition, we have not made a $3.5 million principal payment initially due in February 2019, the due date of which was extended to March 11, 2019. These violations have not been waived by our lender, however, we continue to work with our lender in this regard.

We believe our strategic realignment, if implemented timely and on suitable terms, will provide sufficient liquidity to meet our anticipated working capital, debt service and other liquidity needs through at least the next twelve months. However, if we are unable to timely implement our strategic realignment on suitable terms, if margins do not improve, or if we are unable to further defer principal and/or interest payments or extend the maturity date on our debt, we will likely have insufficient liquidity through the next twelve months, or earlier depending on margins, operating cash flows and lender forbearance. In addition, if margins do not improve from current levels, we may be forced to curtail our production at one or more of our operating facilities. See "Risk Factors".

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 (dollars in thousands).

	December 31, 2018	December 31, 2017
Cash and cash equivalents	$26,627	$49,489
Current assets	$168,804	$203,246
Property and equipment, net	$482,657	$508,352
Current liabilities	$231,859	$90,706
Long-term debt, noncurrent portion	$84,767	$221,091
Working capital (deficit)	$(63,055)	$112,540
Working capital ratio	NA	2.24

Restricted Net Assets

At December 31, 2018, we had approximately $190.2 million of net assets at our subsidiaries that were not available to be transferred to Pacific Ethanol, Inc. in the form of dividends, distributions, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

Changes in Working Capital and Cash Flows

Working capital decreased to a deficit of $63.1 million at December 31, 2018 from a surplus of $112.5 million at December 31, 2017 as a result of an increase of $141.2 million in current liabilities and a decrease of $34.4 million in current assets.

Our current liabilities increased by $141.2 million at December 31, 2018 as compared to December 31, 2017 primarily due to our senior secured notes in the amount of $66.3 million, which are due within one year, our Pekin credit facilities in the amount of approximately $75.0 million, due to financial covenant violations, as well as an increase of $10.2 million in accounts payable and accrued liabilities and an increase of $4.0 million in derivative liabilities.

Current assets decreased primarily due to a decrease of $22.9 million in cash, $12.7 million in accounts receivable and $3.7 million in inventories, partially offset by an increase of $4.4 million in other current assets.

Our cash and cash equivalents decreased by $22.9 million at December 31, 2018 as compared to December 31, 2017 primarily due to $15.2 million used in our investing activities in connection with our plant improvement initiatives and an additional $9.3 million used in our financing activities.

Cash provided by our Operating Activities

Cash provided by our operating activities declined by $34.9 million in 2018 as compared to 2017. We generated $1.6 million of cash from our operating activities in 2018. Specific factors that contributed to the decrease in cash provided by our operating activities include:

a decrease of $29.9 million related to our higher net loss;

a decrease of $6.6 million related to prepaid expenses and other assets due to changes in the cash collateral balances associated with our derivative positions;

a decrease of $7.5 million related to inventories and prepaid inventory due to the timing of purchases; and

a decrease of $4.9 million related to accounts receivable primarily due to the timing of collections;

These amounts were partially offset by:

an increase of $4.6 million related to changes in fair value on commodity derivative instruments as a result of commodity price changes; and

an increase in depreciation of $2.2 million due to a full year of depreciation on our ICP plant assets.

Cash used in our Investing Activities

Cash used in our investing activities decreased by $35.3 million in 2018 as compared to 2017. We used $15.2 million of cash in our investing activities in plant improvements 2018. The decrease in cash used in our investing activities is primarily due to $29.6 million of net cash used in our acquisition of ICP in 2017 and $5.7 million less in plant improvements in 2018 as compared to 2017.

Cash used in our Financing Activities

Cash used in our financing activities increased by $8.4 million in 2018 as compared to 2017. We used $9.3 million of cash in our financing activities in 2018. The increase in cash used in our financing activities is primarily due to a decrease of $51.6 million in proceeds from credit agreements, term debt and assessment financing, in the current year as compared to the prior year. These amounts were partially offset by a decrease of $41.4 million in payments in respect of term and revolving debt.

Kinergy Operating Line of Credit

Kinergy maintains an operating line of credit for an aggregate amount of up to $100.0 million. The credit facility matures on August 2, 2022. 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 1.50% to 2.00%. 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. The credit facility also includes the accounts receivable of Pacific Ag. Products, LLC, or PAP, as additional collateral. Payments that may be made by 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.

For all monthly periods in which excess borrowing 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. We believe Kinergy and PAP are in compliance with this covenant. The following table summarizes Kinergy’s financial covenants and actual results for the periods presented:

	Years Ended December 31,	
	2018	2017
Fixed Charge Coverage Ratio Requirement	2.00	2.00
Actual	19.06	2.79
Excess	17.06	0.79

Pacific Ethanol has guaranteed all of Kinergy’s obligations under the credit facility. As of December 31, 2018, Kinergy had an outstanding balance of $57.1 million and an unused availability under the credit facility of $10.2 million.

Pekin Credit Facilities

On December 15, 2016, our wholly-owned subsidiary, Pacific Ethanol Pekin, LLC, or Pekin, entered into term and revolving credit facilities. Pekin borrowed $64.0 million under a term loan facility that matures on August 20, 2021 and $32.0 million under a revolving credit facility that matures on February 1, 2022. The Pekin credit facilities are secured by a first-priority security interest in all of Pekin's assets. Interest initially accrued under the Pekin credit facilities at an annual rate equal to the 30-day LIBOR plus 3.75%, payable monthly. Pekin is required to make quarterly principal payments in the amount of $3.5 million on the term loan beginning on May 20, 2017, with the remaining principal balance payable at maturity on August 20, 2021. Pekin is required to pay monthly in arrears a fee on any unused portion of the revolving credit facility at a rate of 0.75% per annum. Prepayment of these facilities is subject to a prepayment penalty. Under the initial terms of the credit facilities, Pekin was required to maintain not less than $20.0 million in working capital and an annual debt service coverage ratio of not less than 1.25 to 1.0.

On August 7, 2017, Pekin amended its term and revolving credit facilities by agreeing to increase the interest rate under the facilities by 25 basis points to an annual rate equal to the 30-day LIBOR plus 4.00%. Pekin and its lender also agreed that Pekin is required to maintain working capital of not less than $17.5 million from August 31, 2017 through December 31, 2017 and working capital of not less than $20.0 million from January 1, 2018 and continuing at all times thereafter. In addition, the required debt service coverage ratio was reduced to 0.15 to 1.00 for the fiscal year ended December 31, 2017. Pekin's actual debt service coverage ratio was 0.17 to 1.00 for the fiscal year ended December 31, 2017, 0.02 in excess of the required 0.15 to 1.00. For the month ended January 31, 2018, Pekin was not in compliance with its working capital requirement due to larger than anticipated repair and maintenance expenses to replace faulty equipment. Pekin has received a waiver from its lender for this noncompliance. Further, the lender decreased Pekin's working capital covenant requirement to $13.0 million for the month ended February 28, 2018, excluding from the calculation a $3.5 million principal payment previously due in May 2018.

On March 30, 2018, Pekin further amended its term loan facility by reducing the amount of working capital it is required to maintain to not less than $13.0 million from March 31, 2018 through November 30, 2018 and not less than $16.0 million from December 1, 2018 and continuing at all times thereafter. In addition, a principal payment in the amount of $3.5 million due for May 2018 was deferred until the maturity date of the term loan.

As of December 31, 2018, Pekin had no additional borrowing availability under its revolving credit facility.

We experienced certain covenant violations under our Pekin term and revolving credit facilities at December 31, 2018. In February 2019, we reached an agreement with our lender to forbear until March 11, 2019 and to defer a $3.5 million principal payment until that date. As of the filing of this report, the forbearance and deferral have not been extended, the covenant violations have not been waived and the $3.5 million principal payment is due and has not been paid; however, we continue to work with our lender in this regard.

ICP Credit Facilities

On September 15, 2017, ICP entered into term and revolving credit facilities. ICP borrowed $24.0 million under a term loan facility that matures on September 20, 2021 and $18.0 million under a revolving credit facility that matures on September 1, 2022. The ICP credit facilities are secured by a first-priority security interest in all of ICP's assets. Interest accrues under the ICP credit facilities at an annual rate equal to the 30-day LIBOR plus 3.75%, payable monthly. ICP is required to make quarterly consecutive principal payments in the amount of $1.5 million. ICP is required to pay monthly in arrears a fee on any unused portion of the revolving credit facility at a rate of 0.75% per annum. Prepayment of these facilities is subject to a prepayment penalty. Under the terms of the credit facilities, ICP is required to maintain not less than $8.0 million in working capital and an annual debt service coverage ratio of not less than 1.5 to 1.0, beginning for the year ended December 31, 2018.

As of December 31, 2018, ICP had no additional borrowing availability under its revolving credit facility.

Pacific Ethanol, Inc. Notes Payable

On December 12, 2016, we entered into a Note Purchase Agreement with five accredited investors. On December 15, 2016, under the terms of the Note Purchase Agreement, we sold $55.0 million in aggregate principal amount of our senior secured notes to the investors in a private offering for aggregate gross proceeds of 97% of the principal amount of the notes sold. On June 26, 2017, we entered into a second Note Purchase Agreement with five accredited investors. On June 30, 2017, under the terms of the second Note Purchase Agreement, we sold an additional $13.9 million in aggregate principal amount of our senior secured notes to the investors in a private offering for aggregate gross proceeds of 97% of the principal amount of the notes sold, for a total of $68.9 million in aggregate principal amount of senior secured notes.

The notes mature on December 15, 2019. Interest on the notes accrues at an annual rate equal to (i) the greater of 1% and the three-month LIBOR, plus 7.0% from the closing through December 14, 2017, (ii) the greater of 1% and three-month LIBOR, plus 9% between December 15, 2017 and December 14, 2018, and (iii) the greater of 1% and three-month LIBOR plus 11% between December 15, 2018 and the maturity date. The interest rate increases by an additional 2% per annum above the interest rate otherwise applicable upon the occurrence and during the continuance of an event of default until cured. Interest is payable in cash in arrears on the 15th calendar day of each March, June, September and December. We are required to pay all outstanding principal and any accrued and unpaid interest on the notes on the maturity date. We may, at our option, prepay the outstanding principal amount of the notes at any time without premium or penalty. Pacific Ethanol, Inc. issued the notes, which are secured by a first-priority security interest in the equity interest held by Pacific Ethanol, Inc. in its wholly-owned subsidiary, PE Op. Co., which indirectly owns our plants located on the West Coast.

We are actively evaluating opportunities to repay or refinance our senior notes in advance of their December 2019 maturity as part of our strategic realignment initiative.

At-the-Market Program

We have established an “at-the-market” equity distribution program under which we may offer and sell shares of common stock to, or through, sales agents by means of ordinary brokers’ transactions on the NASDAQ, in block transactions, or as otherwise agreed to between us and the sales agent at prices we deem appropriate. We are under no obligation to offer and sell shares of common stock under the program. For the year ended December 31, 2018, we sold 838,213 shares of common stock through our “at-the-market” equity program that resulted in net proceeds of $2,056,966 and fees paid to our sales agent of $36,951. The net proceeds from these issuances, and future equity issuances, are to be used to repay a portion of our senior secured notes maturing December 15, 2019.

Effects of Inflation

The impact of inflation was not significant to our financial condition or results of operations for 2018, 2017 or 2016.

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 primarily from sales of ethanol and its related co-products.

We have nine ethanol production facilities from which we produce and sell ethanol to our customers through our subsidiary Kinergy. Kinergy enters into sales contracts with ethanol customers under exclusive intercompany ethanol sales agreements with each of our nine ethanol plants. Kinergy also acts as a principal when it purchases third party ethanol which it resells to its customers. Finally, Kinergy has exclusive sales agreements with other third-party owned ethanol plants under which it sells their ethanol production for a fee plus the costs to deliver the ethanol to Kinergy's customers. These sales are referred to as third-party agent sales. Revenue from these third-party agent sales is recorded on a net basis, with Kinergy recognizing its predetermined fees and any associated delivery costs.

We have nine ethanol production facilities from which we produce and sell co-products to our customers through our subsidiary PAP. PAP enters into sales contracts with co-product customers under exclusive intercompany co-product sales agreements with each of the Company's nine ethanol plants.

We recognize revenue from sales of ethanol and co-products at the point in time when the customer obtains control of such products, which typically occurs upon delivery depending on the terms of the underlying contracts. In some instances, we enter into contracts with customers that contain multiple performance obligations to deliver volumes of ethanol or co-products over a contractual period of less than 12 months. We allocate the transaction price to each performance obligation identified in the contract based on relative standalone selling prices and recognizes the related revenue as control of each individual product is transferred to the customer in satisfaction of the corresponding performance obligations.

When we are the agent, the supplier controls the products before they are transferred to the customer because the supplier is primarily responsible for fulfilling the promise to provide the product, has inventory risk before the product has been transferred to a customer and has discretion in establishing the price for the product. When we are the principal, we control the products before they are transferred to the customer because we are primarily responsible for fulfilling the promise to provide the products, we have inventory risk before the product has been transferred to a customer and we have discretion in establishing the price for the product.

See “Note 4 – Segments” of the Notes to Consolidated Financial Statements commending on page F-22 of this report for our revenue-breakdown by type of contract.

Impairment of Long-Lived 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, 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.

We did not recognize any asset impairment charges in 2018, 2017 and 2016.

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.

Our pre-tax consolidated loss was $68.5 million, compared to a loss of $38.4 million and income of $0.5 million for the years ended December 31, 2018, 2017 and 2016, respectively. In 2016, we carried back a portion of our losses to apply to taxable income in 2014, however, based on our current and prior results, we do not have significant evidence to support a conclusion that we will more likely than not be able to benefit from our remaining deferred tax assets. As such, we have recorded a valuation allowance against our net deferred tax assets.

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, 2018 and 2017, 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 expense of $45,000, $5,000 and $306,000 for the years ended December 31, 2018, 2017 and 2016, 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-11 of this report.

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

Not applicable.

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, 2018 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, 2018.

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, 2018. 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.

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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.

Item 16. Form 10-K Summary.

None.

Index to Consolidated Financial Statements

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Pacific Ethanol, Inc. and its subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, other comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018, and the related notes to the consolidated financial statements (collectively, the financial statements). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31 2018, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, 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 18, 2019, expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ RSM US LLP

We have served as the Company's auditor since 2015.

Des Moines, Iowa

March 18, 2019

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

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

Opinion on the Internal Control Over Financial Reporting

We have audited Pacific Ethanol, Inc.'s (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control — Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission in 2013. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, 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) (PCAOB), the consolidated balance sheets as of December 31, 2018 and 2017, the related consolidated statements of operations, other comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended December 31, 2018 of the Company and our report dated March 18, 2019 expressed an unqualified opinion.

Basis for Opinion

The Company'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 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 are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. 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.

Definition and Limitations of Internal Control Over Financial Reporting

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

/s/ RSM US LLP

Des Moines, Iowa

March 18, 2019

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

	December 31, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$26,627	$49,489
Accounts receivable, net of allowance for doubtful accounts of $12 and $19, respectively	67,636	80,344
Inventories	57,820	61,550
Prepaid inventory	3,090	3,281
Income tax receivables	612	743
Derivative assets	1,765	998
Other current assets	11,254	6,841
Total current assets	168,804	203,246
Property and equipment, net	482,657	508,352
Other Assets:		
Intangible asset	2,678	2,678
Other assets	5,842	6,020
Total other assets	8,520	8,698
Total Assets	$659,981	$720,296

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)

	December 31, 2018	2017
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current Liabilities:		
Accounts payable – trade	$48,176	$39,738
Accrued liabilities	23,421	21,673
Current portion – capital leases	45	592
Current portion – long-term debt, net	146,671	20,000
Derivative liabilities	6,309	2,307
Other current liabilities	7,237	6,396
Total current liabilities	231,859	90,706
Long-term debt, net of current portion	84,767	221,091
Assessment financing	9,342	7,714
Capital leases, net of current portion	78	123
Other liabilities	14,570	16,962
Total Liabilities	340,616	336,596
Commitments and contingencies (Notes 1, 8, 9 and 14)		
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, 2018 and 2017	—	—
Series B: 1,580,790 shares authorized; 926,942 shares issued and outstanding as of December 31, 2018 and 2017; liquidation preference of $18,075 as of December 31, 2018	1	1
Common stock, $0.001 par value; 300,000,000 shares authorized; 45,771,422 and 43,984,975 shares issued and outstanding as of December 31, 2018 and 2017, respectively	46	44
Non-voting common stock, $0.001 par value; 3,553,000 shares authorized; 896 shares issued and outstanding as of December 31, 2018 and 2017	—	—
Additional paid-in capital	932,179	927,090
Accumulated other comprehensive loss	(2,459)	(2,234)
Accumulated deficit	(630,000)	(568,462)
Total Pacific Ethanol, Inc. stockholders' equity	299,767	356,439
Noncontrolling interests	19,598	27,261
Total stockholders' equity	319,365	383,700
Total Liabilities and Stockholders' Equity	$659,981	$720,296

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,		
	2018	2017	2016
Net sales	$1,515,371	$1,632,255	$1,624,758
Cost of goods sold	1,530,535	1,626,324	1,570,400
Gross profit (loss)	(15,164)	5,931	54,358
Selling, general and administrative expenses	36,373	31,516	30,849
Income (loss) from operations	(51,537)	(25,585)	23,509
Fair value adjustments	—	473	(557)
Interest expense, net	(17,132)	(12,938)	(22,406)
Other income (expense), net	171	(345)	(1)
Income (loss) before provision (benefit) for income taxes	(68,498)	(38,395)	545
Provision (benefit) for income taxes	(562)	(321)	(981)
Consolidated net income (loss)	(67,936)	(38,074)	1,526
Net (income) loss attributed to noncontrolling interests	7,663	3,110	(107)
Net income (loss) attributed to Pacific Ethanol, Inc.	$(60,273)	$(34,964)	$1,419
Preferred stock dividends	$(1,265)	$(1,265)	$(1,269)
Income allocated to participating securities	—	—	(2)
Income (loss) available to common stockholders	$(61,538)	$(36,229)	$148
Income (loss) per share, basic and diluted	$(1.42)	$(0.85)	$0.00
Weighted-average shares outstanding, basic	43,376	42,745	42,182
Weighted-average shares outstanding, diluted	43,376	42,745	42,251

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,		
	2018	2017	2016
Consolidated net income (loss)	$(67,936)	$(38,074)	$1,526
Other comprehensive income (expense) – net gain (loss) arising during the period on defined benefit pension plans	(225)	386	(3,660)
Total comprehensive loss	(68,161)	(37,688)	(2,134)
Comprehensive (income) loss attributed to noncontrolling interests	7,663	3,110	(107)
Comprehensive loss attributed to Pacific Ethanol, Inc.	$(60,498)	$(34,578)	$(2,241)

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						
	Shares	Amount	Shares	Amount	Additional Paid-In Capital	Accumulated Deficit	Accum. Other Comprehensive Income (Loss)	Non-Controlling Interests	Total
Balances, December 31, 2015	927	$ 1	42,515	$ 43	$ 902,843	$ (532,383)	$ 1,040	$ —	$ 371,544
Stock-based compensation expense – restricted stock and options to employees and directors, net of cancellations and tax	—	—	659	1	2,281	—	—	—	2,282
Warrant exercises	—	—	138	—	1,338	—	—	—	1,338
ACEC contribution to form Pacific Aurora	—	—	—	—	5,761	—	—	10,739	16,500
Pension plan adjustment	—	—	—	—	—	—	(3,660)	—	(3,660)
Sale of Pacific Aurora interests to ACEC	—	—	—	—	10,475	—	—	19,525	30,000
Preferred stock dividends	—	—	—	—	—	(1,269)	—	—	(1,269)
Net income	—	—	—	—	—	1,419	—	107	1,526
Balances, December 31, 2016	927	$ 1	43,312	$ 44	$ 922,698	$ (532,233)	$ (2,620)	$ 30,371	$ 418,261
Stock-based compensation expense – restricted stock and options to employees and directors, net of cancellations and tax	—	—	473	—	3,014	—	—	—	3,014
Warrant and option exercises	—	—	201	—	1,378	—	—	—	1,378
Pension plan adjustment	—	—	—	—	—	—	386	—	386
Preferred stock dividends	—	—	—	—	—	(1,265)	—	—	(1,265)

Net loss	—	—	—	—	—	(34,964)	—	(3,110)	(38,074)
Balances, December 31, 2017	927	$ 1	43,986	$ 44	$ 927,090	$ (568,462)	$ (2,234)	$ 27,261	$ 383,700
Stock-based compensation expense – restricted stock and options to employees and directors, net of cancellations and tax	—	—	947	1	3,033	—	—	—	3,034
Common stock issuances	—	—	838	1	2,056	—	—	—	2,057
Pension plan adjustment	—	—	—	—	—	—	(225)	—	(225)
Preferred stock dividends	—	—	—	—	—	(1,265)	—	—	(1,265)
Net loss	—	—	—	—	—	(60,273)	—	(7,663)	(67,936)
Balances, December 31, 2018	927	$ 1	45,771	$ 46	$ 932,179	$ (630,000)	$ (2,459)	$ 19,598	$ 319,365

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,		
	2018	2017	2016
Operating Activities:			
Consolidated net income (loss)	$(67,936)	$(38,074)	$1,526
Adjustments to reconcile consolidated net income (loss) to cash provided by operating activities:			
Depreciation	40,849	38,651	35,441
Fair value adjustments	—	(473)	557
Deferred income taxes	27	169	(1,122)
Inventory valuation	(350)	2,678	—
Change in fair value on commodity derivative instruments	6,714	2,077	1,984
Amortization of deferred financing costs	900	503	137
Amortization of debt discounts	720	636	2,322
Noncash compensation	3,438	3,828	2,616
Bad debt expense	45	5	306
Interest expense added to plant term debt	—	—	9,451
Changes in operating assets and liabilities, net of effects from acquisitions:			
Accounts receivable	12,663	17,562	(25,235)
Inventories	4,080	5,070	750
Prepaid expenses and other assets	(3,880)	2,677	3,189
Prepaid inventory	191	6,738	(3,973)
Accounts payable and accrued expenses	4,105	(5,538)	9,279
Net cash provided by operating activities	$1,566	$36,509	$37,228
Investing Activities:			
Additions to property and equipment	$(15,154)	$(20,866)	$(19,171)
Purchase of ICP, net of cash acquired	—	(29,574)	—
Proceeds from cash collateralized letters of credit	—	—	4,574
Net cash used in investing activities	$(15,154)	$(50,440)	$(14,597)
Financing Activities:			
Proceeds from issuances of common stock	$2,057	$—	$—
Proceeds from warrant and option exercises	—	1,202	1,164
Proceeds from assessment financing	2,043	5,618	2,096
Payments on assessment financing	(415)	—	—
Net proceeds (payments) on Kinergy’s line of credit	7,578	(385)	(11,141)
Proceeds from plant term and revolving credit agreements	—	42,000	97,000
Proceeds from parent notes	—	13,530	53,350
Payments on plant borrowings	(16,500)	(59,927)	(172,073)
Payments on senior notes	(2,000)	—	—
Preferred stock dividend payments	(1,265)	(1,265)	(1,269)
Payments on capital leases	(772)	(626)	(7,089)

Sale of noncontrolling interests	—	—	30,000
Debt issuance costs	—	(986)	(1,960)
Net cash used in financing activities	$(9,274)	$(839)	$(9,922)
Net increase (decrease) in cash and cash equivalents	(22,862)	(14,770)	12,709
Cash and cash equivalents at beginning of period	49,489	64,259	51,550
Cash and cash equivalents at end of period	$26,627	$49,489	$64,259

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,		
	2018	2017	2016
Supplemental Information:			
Interest paid	$15,147	$11,133	$11,168
Income tax refunds	$743	$5,614	$4,784
Noncash financing and investing activities:			
Capital leases added to plant and equipment	$—	$180	$—
Reclass of warrant liability to equity upon exercises	$—	$178	$179
Contribution of property and equipment for noncontrolling interest (see Note 2)	$—	$—	$16,500
Debt issued in ICP acquisition (see Note 2)	$—	$46,927	$—

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's acquisition of Illinois Corn Processing, LLC ("ICP") was consummated on July 3, 2017, and as a result, the Company's consolidated financial statements include the results of ICP only since that date.

On December 15, 2016, the Company and Aurora Cooperative Elevator Company, a Nebraska cooperative corporation ("ACEC"), closed a transaction under a contribution agreement under which the Company contributed its Aurora, Nebraska ethanol facilities and ACEC contributed its Aurora grain elevator and related grain handling assets to Pacific Aurora, LLC ("Pacific Aurora") in exchange for equity interests in Pacific Aurora. On December 15, 2016, concurrently with the closing under the contribution agreement, the Company sold a portion of its equity interest in Pacific Aurora to ACEC. As a result, the Company owns 73.93% of Pacific Aurora and ACEC owns 26.07% of Pacific Aurora. Further, the Company has consolidated 100% of the results of Pacific Aurora and recorded ACEC's 26.07% equity interest as noncontrolling interests in the accompanying financial statements for the years ended December 31, 2018 and 2017 and for the period December 15, 2016 through December 31, 2016.

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. The Company's five 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.

The Company has a combined production capacity of 605 million gallons per year, markets, on an annualized basis, nearly 1.0 billion gallons of ethanol and specialty alcohols, and produces, on an annualized basis, over 3.0 million tons of co-products on a dry matter basis, such as wet and dry distillers grains, wet and dry corn gluten feed, condensed distillers solubles, corn gluten meal, corn germ, dried yeast and CO_2.

As of December 31, 2018, all but one of the Company's production facilities, specifically, the Company's Aurora East facility, were operating. As market conditions change, the Company may increase, decrease or idle production at one or more operating 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.

Liquidity – The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. The Company and the ethanol industry as a whole experienced significant adverse conditions throughout most of 2018 as a result of industry-wide record low ethanol prices due to reduced demand and high industry inventory levels. These factors resulted in prolonged negative operating margins, significantly lower cash flow from operations and substantial net losses that resulted in reduced liquidity and violations of certain debt covenants. Although the Company expects margins to improve, they may not. In response to these circumstances, the Company has initiated and expects to complete a strategic realignment of its business within the next six months. The Company's primary focus is the potential sale of certain production assets, a reduction of its debt levels, a strengthening of its cash and liquidity, and opportunities for strategic partnerships and capital raising activities, positioning the Company to optimize its business performance. The most significant challenge to management meeting these objectives would be a continued adverse margin environment.

In implementing its strategic realignment plan, the Company, as of December 31, 2018, had the following available liquidity and capital resources to achieve its objectives:

Cash of $26.6 million and excess availability under Kinergy's line of credit of $10.2 million;

Nine ethanol production facilities with an aggregate 605 million gallons of annual production capacity, of which plant assets representing 355 million gallons of capacity are either unencumbered, or their entire sales proceeds would be used to repay the senior secured notes. The Company has engaged an independent third party to help facilitate the marketing of certain of these assets; and

In excess of $20 million of equity available under the Company's shelf registration statement, including under its at-the-market equity program. These funds would first be required to repay the Company's senior secured notes.

The Company also will continue working with its lenders and stakeholders to pursue other options to increase liquidity, obtain waivers or forbearance of debt covenant violations, and extend the maturity date of its debt.

The Company believes that its strategic realignment will provide sufficient liquidity to meet its anticipated working capital, debt service and other liquidity needs through the next twelve months, or March 18, 2020.

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*, 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, specialty alcohols and co-products, with all of the Company's production facilities aggregated, and (2) marketing and distribution, which includes marketing and merchant trading for Company-produced ethanol, specialty alcohols and co-products and third-party ethanol.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Cash and Cash Equivalents – The Company considers all highly-liquid investments with an original maturity of three months or less to be cash equivalents. The Company maintains its accounts at several financial institutions. These cash balances regularly exceed amounts insured by the Federal Deposit Insurance Corporation, however, the Company does not believe it is exposed to any significant credit risk on these balances.

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, 2018 and 2017, 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 $54,820,000 and $64,501,000 at December 31, 2018 and 2017, respectively, were used as collateral under Kinergy’s operating line of credit. The allowance for doubtful accounts was $12,000 and $19,000 as of December 31, 2018 and 2017, respectively. The Company recorded a bad debt expense of $45,000, $5,000 and $306,000 for the years ended December 31, 2018, 2017 and 2016, 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.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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,		
	2018	2017	2016
Customer A	14%	16 %	17 %
Customer B	11%	11 %	12 %

The Company had accounts receivable due from these customers totaling $13,405,000 and $17,792,000, representing 20% and 24% of total accounts receivable, as of December 31, 2018 and 2017, respectively.

The Company purchases corn, its largest cost component in producing ethanol, from its suppliers. The Company purchased corn from suppliers representing 10% or more of the Company's total corn purchases, as follows:

	Years Ended December 31,		
	2018	2017	2016
Supplier A	17%	14 %	13 %
Supplier B	14%	13 %	4 %
Supplier C	11%	9 %	13 %
Supplier D	10%	10 %	8 %

Approximately 35% of the Company's employees are covered by a collective bargaining agreement.

Inventories – Inventories consisted primarily of bulk ethanol, specialty alcohols, corn, co-products, low-carbon and Renewable Identification Number ("RIN") credits 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 is net of a $2,328,000 and $2,678,000 valuation adjustment as of December 31, 2018 and 2017, respectively. Inventory balances consisted of the following (in thousands):

	December 31,	
	2018	2017
Finished goods	$35,778	$35,652
Work in progress	6,855	8,807
Raw materials	7,233	7,601
Low-carbon and RIN credits	6,130	7,952
Other	1,824	1,538
Total	$57,820	$61,550

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 property and equipment 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.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Intangible Asset – 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 an asset impairment in the consolidated statements of operations.

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 – In May 2014, the FASB issued new guidance on the recognition of revenue ("ASC 606"). ASC 606 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 effective for annual reporting periods beginning after December 15, 2017, including interim periods within that reporting period. In March and April 2016, the FASB issued further revenue recognition guidance amending principal vs. agent considerations regarding whether 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 and services.

The provisions of ASC 606 include a five-step process by which an entity will determine revenue recognition, depicting the transfer of goods or services to customers in amounts reflecting the payment to which an entity expects to be entitled in exchange for those goods or services. ASC 606 requires the Company to apply the following steps: (1) identify the contract with the customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to the performance obligations in the contract; and (5) recognize revenue when, or as, the Company satisfies the performance obligation.

Effective January 1, 2018, the Company adopted ASC 606 using the modified retrospective method for all of its contracts. Following the adoption of ASC 606, the Company continues to recognize revenue at a point-in-time when control of goods transfers to the customer. The timing of recognition is consistent with the Company’s previous revenue recognition accounting policy under which the Company recognized revenue when title and risk of loss pass to the customer and collectability was reasonably assured. In addition, ASC 606 did not impact the Company’s presentation of revenue on a gross or net basis.

The Company recognizes revenue primarily from sales of ethanol and its related co-products.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company has nine ethanol production facilities from which it produces and sells ethanol to its customers through Kinergy. Kinergy enters into sales contracts with ethanol customers under exclusive intercompany ethanol sales agreements with each of the Company's nine ethanol plants. Kinergy also acts as a principal when it purchases third party ethanol which it resells to its customers. Finally, Kinergy has exclusive sales agreements with other third-party owned ethanol plants under which it sells their ethanol production for a fee plus the costs to deliver the ethanol to Kinergy's customers. These sales are referred to as third-party agent sales. Revenue from these third-party agent sales is recorded on a net basis, with Kinergy recognizing its predetermined fees and any associated delivery costs.

The Company has nine ethanol production facilities from which it produces and sells co-products to its customers through PAP. PAP enters into sales contracts with co-product customers under exclusive intercompany co-product sales agreements with each of the Company's nine ethanol plants.

The Company recognizes revenue from sales of ethanol and co-products at the point in time when the customer obtains control of such products, which typically occurs upon delivery depending on the terms of the underlying contracts. In some instances, the Company enters into contracts with customers that contain multiple performance obligations to deliver volumes of ethanol or co-products over a contractual period of less than 12 months. The Company allocates the transaction price to each performance obligation identified in the contract based on relative standalone selling prices and recognizes the related revenue as control of each individual product is transferred to the customer in satisfaction of the corresponding performance obligations.

When the Company is the agent, the supplier controls the products before they are transferred to the customer because the supplier is primarily responsible for fulfilling the promise to provide the product, has inventory risk before the product has been transferred to a customer and has discretion in establishing the price for the product. When the Company is the principal, the Company controls the products before they are transferred to the customer because the Company is primarily responsible for fulfilling the promise to provide the products, has inventory risk before the product has been transferred to a customer and has discretion in establishing the price for the product.

See Note 4 for the Company's revenue by type of contracts.

Shipping and Handling Costs – The Company accounts for shipping and handling costs relating to contracts with customers as costs to fulfill its promise to transfer its products. Accordingly, the costs are classified as a component of cost of goods sold in the accompanying consolidated statements of operations.

Selling Costs – Selling costs associated with the Company’s product sales are classified as a component of selling, general and administrative expenses in the accompanying consolidated statements of operations.

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 recognized over the period during which an employee is required to provide services in exchange for the award. The Company accounts for forfeitures as they occur. The Company recognizes stock-based compensation expense as a component of selling, general and administrative expenses in the consolidated statements of operations.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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 group is expected to generate plus the net proceeds expected from the sale of the asset group. If this amount is less than the carrying value of the asset, the Company will then determine the fair value of the asset group. An impairment loss would be recognized when the fair value is less than the related asset group'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. The Company performed an undiscounted cash flow analysis for its long-lived assets as of December 31, 2018, resulting in amounts in excess of carrying values.

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 approximately $900,000, $503,000 and $137,000 for the years ended December 31, 2018, 2017 and 2016, respectively. Unamortized deferred financing costs were approximately $1,377,000 and $1,925,000 as of December 31, 2018 and 2017, respectively, and are recorded net of long-term debt in the consolidated balance sheets.

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 and other income (expense), net, respectively. Deferred tax assets and liabilities are classified as noncurrent in the Company's consolidated balance sheets.

The Company files a consolidated federal income tax return. This return includes all wholly-owned subsidiaries as well as the Company's pro-rata share of taxable income from pass-through entities in which the Company owns less than 100%. 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 preferred stock are considered participating securities and are also included in this calculation when dilutive.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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

	Year Ended December 31, 2018		
	Loss Numerator	Shares Denominator	Per-Share Amount
Net loss attributed to Pacific Ethanol	$(60,273)		
Less: Preferred stock dividends	(1,265)		
Basic and diluted loss per share:			
Loss available to common stockholders	$(61,538)	43,376	$ (1.42)

	Year Ended December 31, 2017		
	Loss Numerator	Shares Denominator	Per-Share Amount
Net loss attributed to Pacific Ethanol	$(34,964)		
Less: Preferred stock dividends	(1,265)		
Basic and diluted loss per share:			
Loss available to common stockholders	$(36,229)	42,745	$ (0.85)

	Year Ended December 31, 2016		
	Income Numerator	Shares Denominator	Per-Share Amount
Net income attributed to Pacific Ethanol	$1,419		
Less: Preferred stock dividends	(1,269)		
Less: Income allocated to participating securities	(2)		
Basic income per share:			
Income available to common stockholders	$148	42,182	$ 0.00
Add: Options	—	69	
Diluted income per share:			
Income available to common stockholders	$148	42,251	$ 0.00

There were an aggregate of 635,000, 719,000 and 704,000 potentially dilutive shares from convertible securities outstanding as of December 31, 2018, 2017 and 2016, respectively. These convertible securities were not considered in calculating diluted income (loss) per common share for the years ended December 31, 2018, 2017 and 2016 as their effect would be anti-dilutive.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Financial Instruments – The carrying values of cash and cash equivalents, accounts receivable, derivative assets, accounts payable, accrued liabilities and derivative liabilities are reasonable estimates of their fair values because of the short maturity of these items. The Company believes the carrying value of its long-term debt and assessment financing approximates fair value because the interest rates on these instruments are variable, and are considered Level 2 fair value measurements.

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 allowance for doubtful accounts, net realizable value of inventory, estimated lives of property and equipment, 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 reclassifications had no effect on the consolidated net income (loss), working capital or stockholders’ equity reported in the consolidated statements of operations and consolidated balance sheets.

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, 2018, including interim periods within those fiscal years. The standard requires a modified retrospective transition approach. In July 2018, the FASB issued Accounting Standards Update, *Leases (Topic 842): Targeted Improvements*, which provides an option to apply the transition provisions of the new standard at adoption date instead of the earliest comparative period presented in the financial statements. The company will elect to use this optional transition method. On January 1, 2019, the Company adopted the new lease accounting guidance, resulting in an increase to right of use assets and lease liabilities of approximately $43.8 million.

In May 2014, the FASB issued new guidance on the recognition of revenue under ASC 606. See Note 1 " – Revenue Recognition" above.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2. PACIFIC ETHANOL PLANTS.

Illinois Corn Processing

On July 3, 2017, the Company purchased 100% of the equity interests of ICP from ICP's owners, Illinois Corn Processing Holdings Inc. ("ICPH") and MGPI Processing, Inc. (together with ICPH, the "Sellers"). At the closing, ICP became an indirect wholly-owned subsidiary of the Company.

Upon closing, the Company (i) paid to the Sellers $30.0 million in cash, and (ii) issued to the Sellers secured promissory notes in the aggregate principal amount of approximately $46.9 million (the "Seller Notes"). The Seller Notes were secured by a first priority lien on ICP's assets and a pledge of the membership interests of ICP.

ICP is a 90 million gallon per year fuel and industrial alcohol manufacturing, storage and distribution facility adjacent to the Company's facility in Pekin, Illinois and is located on the Illinois River. ICP produces fuel-grade ethanol, beverage and industrial-grade alcohol, dry distillers grain and corn oil. The facility has direct access to end-markets via barge, rail and truck, and expands the Company's domestic and international distribution channels. ICP is reflected in the results of the Company's production segment.

Upon closing, the Company recognized the following allocation of the purchase price at fair values. No intangible assets or liabilities were recognized. The Company's purchase price consideration allocation is as follows (in thousands):

Cash and equivalents	$426
Accounts receivable	11,636
Inventories	9,227
Other current assets	1,560
Total current assets	22,849
Property and equipment	61,128
Other assets	328
Total assets acquired	$84,305

Accounts payable, trade	$5,683
Other current liabilities	1,486
Total current liabilities	7,169
Other non-current liabilities	209
Total liabilities assumed	$7,378
Net assets acquired	$76,927
Estimated goodwill	$—
Total purchase price	$76,927

The contractual amount due on the accounts receivable acquired was $11.6 million, all of which was expected to be collectible.

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The following table presents unaudited pro forma combined financial information assuming the acquisition of ICP occurred on January 1, 2016 (in thousands, except per share data):

	Years Ended December 31,	
	2017	2016
Net sales – pro forma	$1,710,317	$1,802,159
Consolidated net income (loss) – pro forma	$(42,589)	$8,329
Diluted net income (loss) per share – pro forma	$(0.95)	$0.16
Diluted weighted-average shares – pro forma	42,745	42,251

For the years ended December 31, 2018 and 2017, ICP contributed $163.1 million and $75.9 million in net sales and $6.5 million and $3.7 million in pre-tax income, respectively.

Pacific Aurora

On December 15, 2016, PE Central closed on an agreement with ACEC under which (i) PE Central contributed to Pacific Aurora 100% of the equity interests of its wholly-owned subsidiaries, Pacific Ethanol Aurora East, LLC (“AE”) and Pacific Ethanol Aurora West, LLC (“AW”), which owned the Company’s Aurora East and Aurora West ethanol plants, respectively, in exchange for an 88.15% ownership interest in Pacific Aurora, and (ii) ACEC contributed to Pacific Aurora its grain elevator adjacent to the Aurora East and Aurora West properties and related grain handling assets, including the outer rail loop and the real property on which they are located, in exchange for an 11.85% ownership interest in Pacific Aurora. On December 15, 2016, concurrent with the closing of the contribution transaction, PE Central sold a 14.22% ownership interest in Pacific Aurora to ACEC for $30.0 million in cash.

Following the closing of these transactions, PE Central owned 73.93% of Pacific Aurora and ACEC owned 26.07% of Pacific Aurora.

The Company has consolidated 100% of the results of Pacific Aurora and recorded the amount attributed to ACEC as noncontrolling interests under the voting rights model. Since the Company had control of AE and AW prior to forming Pacific Aurora, there was no gain or loss recorded on the contribution and ultimate sale of a portion of the Company's interests in Pacific Aurora. ACEC contributed $16.5 million in assets at fair market value and paid $30.0 million in cash for its additional ownership interests. A noncontrolling interest was recognized to reflect ACEC's proportional ownership interest multiplied by the book value of Pacific Aurora's net assets. As a result, the Company recorded $16.2 million as additional paid-in capital attributed to the difference between Pacific Aurora's book value and the contribution and sale.

The carrying values and classification of assets and liabilities of Pacific Aurora as of December 31, 2016 were as follows (in thousands):

Cash and equivalents	$1,453
Accounts receivable	16,804
Inventories	3,837
Other current assets	77
Total current assets	22,171
Property and equipment	115,759
Other assets	1,387
Total assets	$139,317
Accounts payable and accrued liabilities	$20,152
Other current liabilities	2,045
Long-term debt outstanding, net	621
Total liabilities	$22,818

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3. INTERCOMPANY AGREEMENTS.

The Company, directly or through one of its subsidiaries, has entered into the following management and marketing agreements:

Affiliate Management Agreement – Pacific Ethanol 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, with Pacific Aurora, effective December 15, 2016, and with ICP, effective July 1, 2017, under which Pacific Ethanol 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. Pacific Ethanol 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 AMAs have an initial term of one year and automatic successive one year renewal periods. Pacific Ethanol 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.

Pacific Ethanol recorded revenues of approximately $12,048,000, $11,904,000 and $12,968,000 related to the AMAs in place for the years ended December 31, 2018, 2017 and 2016, respectively. These amounts have been eliminated upon consolidation.

Ethanol Marketing Agreements – Kinergy entered into separate ethanol marketing agreements with each of the Company's nine 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 Kinergy, an amount is paid to Kinergy 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 Kinergy, 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.

Kinergy recorded revenues of approximately $8,773,000, $8,464,000 and $8,029,000 related to the ethanol marketing agreements for the years ended December 31, 2018, 2017 and 2016, 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 Company’s plants, with the exception of the Pacific Aurora facilities, which terminated its agreements with PAP on December 15, 2016. 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.

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Under these agreements, PAP receives a fee of $0.045 per bushel of corn delivered to each facility as consideration for its procurement and handling services, payable monthly. Effective December 15, 2016, this fee is $0.03 per bushel of corn. 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 $4,531,000, $4,245,000 and $4,386,000 related to the corn procurement and handling agreements for the years ended December 31, 2018, 2017 and 2016, respectively. These amounts have been eliminated upon consolidation.

Effective December 15, 2016, each Pacific Aurora facility entered into a new grain procurement agreement with ACEC. Under this agreement, ACEC receives a fee of $0.03 per bushel of corn delivered to each facility as consideration for its procurement and handling services, payable monthly. The grain procurement agreement has an initial term of one year and successive one year renewal periods at the option of the individual plant. Pacific Aurora recorded expenses of approximately $1,381,000, $1,488,000 and $107,000 for the years ended December 31, 2018, 2017 and the period from December 15, 2016 to December 31, 2016, respectively. These amounts have not been eliminated upon consolidation as they are with a related but unconsolidated third-party.

Distillers Grains Marketing Agreements – PAP entered into separate distillers grains marketing agreements with each of the Company's 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 $6,572,000, $6,020,000 and $6,047,000 related to the distillers grains marketing agreements for the years ended December 31, 2018, 2017 and 2016, respectively. These amounts have been eliminated upon consolidation.

4. SEGMENTS.

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

Income before provision for income taxes includes management fees charged by Pacific Ethanol to the segment. The production segment incurred \$10,248,000, \$9,744,000 and \$9,968,000 in management fees for the years ended December 31, 2018, 2017 and 2016, respectively. The marketing and distribution segment incurred \$2,160,000, \$2,160,000 and \$3,000,000 in management fees for the years ended December 31, 2018, 2017 and 2016, 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.

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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 3. 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.

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

	Years Ended December 31,		
	2018	2017	2016
Net Sales			
Production, recorded as gross:			
Ethanol/alcohol sales	$859,815	$845,692	$797,363
Co-product sales	296,686	257,031	248,444
Intersegment sales	1,995	1,898	1,169
Total production sales	1,158,496	1,104,621	1,046,976
Marketing and distribution:			
Ethanol/alcohol sales, gross	$357,011	$527,869	$577,347
Ethanol/alcohol sales, net	1,859	1,663	1,604
Intersegment sales	8,773	8,464	8,029
Total marketing and distribution sales	367,643	537,996	586,980
Intersegment eliminations	(10,768)	(10,362)	(9,198)
Net sales as reported	$1,515,371	$1,632,255	$1,624,758

Cost of goods sold:			
Production	$1,197,507	$1,101,651	$1,003,679
Marketing and distribution	343,991	535,033	575,920
Intersegment eliminations	(10,963)	(10,360)	(9,199)
Cost of goods sold as reported	$1,530,535	$1,626,324	$1,570,400

Income (loss) before benefit for income taxes:			
Production	$(77,833)	$(27,457)	$(6,879)
Marketing and distribution	18,191	(2,463)	4,517
Corporate activities	(8,856)	(8,475)	2,907
	$(68,498)	$(38,395)	$545
Depreciation:			
Production	$40,099	$37,637	$34,528
Corporate activities	750	1,014	913
	$40,849	$38,651	$35,441

Interest expense:			
Production	$7,116	$5,887	$20,794
Marketing and distribution	1,388	1,271	1,404
Corporate activities	8,628	5,780	208
	$17,132	$12,938	$22,406

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

	December 31, 2018	December 31, 2017
Total assets:		
Production	$532,790	$583,696
Marketing and distribution	112,984	127,242
Corporate assets	14,117	9,358
	$659,891	$720,296

5. PROPERTY AND EQUIPMENT.

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

	December 31, 2018	2017
Facilities and plant equipment	$621,909	$601,156
Land	8,970	8,970
Other equipment, vehicles and furniture	11,812	10,189
Construction in progress	30,312	38,041
	673,003	658,356
Accumulated depreciation	(190,346)	(150,004)
	$482,657	$508,352

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Depreciation expense was $40,849,000, $38,651,000 and $35,441,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

For the year ended December 31, 2018, 2017 and 2016, the Company capitalized interest of $1,170,000, $822,000 and $1,307,000, respectively, related to its capital investment activities.

6. INTANGIBLE ASSET.

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, 2018, 2017 and 2016.

7. 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, 2018, 2017 and 2016, 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 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 $6,714,000, $2,077,000 and $1,984,000 as the change in the fair value of these contracts for the years ended December 31, 2018, 2017 and 2016, respectively.

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

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	As of December 31, 2018			
	Assets		Liabilities	
Type of Instrument	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Cash collateral balance	Other current assets	$8,479		
Commodity contracts	Derivative assets	$1,765	Derivative liabilities	$6,309

	As of December 31, 2017			
	Assets		Liabilities	
Type of Instrument	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value
Cash collateral balance	Other current assets	$3,813		
Commodity contracts	Derivative assets	$998	Derivative liabilities	$2,307

The above amounts represent the gross balances of the contracts, however, the Company does have a right of offset with each of its derivative brokers.

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

		Realized Gains (Losses) For the Years Ended December 31,		
Type of Instrument	Statements of Operations Location	2018	2017	2016
Commodity contracts	Cost of goods sold	$(3,479)	$(4,165)	$1,386
		$(3,479)	$(4,165)	$1,386

Type of Instrument	Statements of Operations Location	Unrealized Gains (Losses) For the Years Ended December 31, 2018	2017	2016
Commodity contracts	Cost of goods sold	$(3,235)	$2,088	$(3,370)
		$(3,235)	$2,088	$(3,370)

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8. DEBT.

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

	December 31, 2018	December 31, 2017
Kinergy line of credit	$57,057	$49,477
Pekin term loan	43,000	53,500
Pekin revolving loan	32,000	32,000
ICP term loan	16,500	22,500
ICP revolving loan	18,000	18,000
Pacific Aurora line of credit	—	—
Parent notes payable	66,948	68,948
	233,505	244,425
Less unamortized debt discount	(690)	(1,409)
Less unamortized debt financing costs	(1,377)	(1,925)
Less short-term portion	(146,671)	(20,000)
Long-term debt	$84,767	$221,091

Kinergy Line of Credit – Kinergy has an operating line of credit for an aggregate amount of up to $100,000,000. The line of credit matures on August 2, 2022. 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 1.50% and 2.00%. The applicable margin was 1.50%, for a total rate of 4.31% at December 31, 2018. 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 $1,500,000 per fiscal quarter.

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

If Kinergy and PAP's monthly excess borrowing availability falls below certain thresholds, they 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).

Kinergy 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 Kinergy's obligations under the line of credit. As of December 31, 2018, Kinergy had unused availability under the credit facility of $10,200,000.

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Pekin Credit Facilities – On December 15, 2016, the Company's wholly-owned subsidiary, Pacific Ethanol Pekin, Inc. ("Pekin"), entered into a Credit Agreement (the "Pekin Credit Agreement") with 1st Farm Credit Services, PCA and CoBank, ACB ("CoBank"). On December 15, 2016, under the terms of the Pekin Credit Agreement, Pekin borrowed from 1st Farm Credit Services $64.0 million under a term loan facility that matures on August 20, 2021 (the "Pekin Term Loan") and $32.0 million under a revolving term loan facility that matures on February 1, 2022 (the "Pekin Revolving Loan" and, together with the Pekin Term Loan, the "Pekin Credit Facility"). The Pekin Credit Facility is secured by a first-priority security interest in all of Pekin's assets under the terms of a Security Agreement, dated December 15, 2016, by and between Pekin and CoBank (the "Pekin Security Agreement"). Interest accrues under the Pekin Credit Facility at an annual rate equal to the 30-day LIBOR plus 3.75%, payable monthly. Pekin is required to make quarterly principal payments in the amount of $3.5 million on the Pekin Term Loan beginning on May 20, 2017 and a principal payment of $4.5 million at maturity on August 20, 2021. Pekin is required to pay a monthly fee on any unused portion of the Pekin Revolving Loan at a rate of 0.75% per annum. Prepayment of the Pekin Credit Facility is subject to a prepayment penalty. Under the terms of the Pekin Credit Agreement, Pekin is required to maintain not less than $20.0 million in working capital and an annual debt coverage ratio of not less than 1.25 to 1.0. The Pekin Credit Agreement contains a variety of affirmative covenants, negative covenants and events of default.

On August 7, 2017, Pekin amended its term and revolving credit facilities by agreeing to increase the interest rate under the facilities by 25 basis points to an annual rate equal to the 30-day LIBOR plus 4.00%. Pekin and its lender also agreed that Pekin is required to maintain working capital of not less than $17.5 million from August 31, 2017 through December 31, 2017 and working capital of not less than $20.0 million from January 1, 2018 and continuing at all times thereafter. In addition, the required Debt Service Coverage Ratio was reduced to 0.15 to 1.00 for the fiscal year ending December 31, 2017. For the month ended January 31, 2018, Pekin was not in compliance with its working capital requirement due to larger than anticipated repair and maintenance related expenses to replace faulty equipment. Pekin has received a waiver from its lender for this noncompliance. Further, the lender decreased Pekin's working capital covenant requirement to $13.0 million for the month ended February 28, 2018, excluding the $3.5 million principal payment due in May 2018 from the calculation.

On March 30, 2018, Pekin amended its term loan facility by reducing the amount of working capital it is required to maintain to not less than $13.0 million from March 31, 2018 through November 30, 2018 and not less than $16.0 million from December 1, 2018 and continuing at all times thereafter. In addition, a principal payment in the amount of $3.5 million due for May 2018 was deferred until the maturity date of the term loan.

The Company experienced certain covenant violations under its Pekin term and revolving credit facilities at December 31, 2018. In February 2019, the Company reached an agreement with its lender to forbear until March 11, 2019 and to defer a $3.5 million principal payment until that date. As of the filing of this report, the forbearance and deferral have not been extended, the covenant violations have not been waived and the $3.5 million principal payment is due and has not been paid; however, the Company continues to work with its lender in this regard.

ICP Credit Facilities — On September 15, 2017, ICP, Compeer Financial, PCA (“Compeer”), and CoBank as agent, entered into a Credit Agreement (“ICP Credit Agreement”). Under the ICP Credit Agreement, Compeer agreed to extend to ICP a term loan in the amount of $24,000,000 and a revolving loan in an amount of up to $18,000,000. ICP used the proceeds of the term loan to refinance the Seller Notes. ICP is to make amortizing principal payments in sixteen equal consecutive quarterly installments of $1,500,000 each until September 20, 2021, at which time the entire remaining balance is due and payable. Interest on the unpaid principal amount of the term loan accrues at a rate equal to 3.75% plus the one-month LIBOR index rate. ICP used the proceeds of the revolving term facility to refinance the Seller Notes and for ICP’s working capital needs. The revolving loan matures on September 1, 2022. The revolving loan gives ICP the right, in ICP’s sole discretion, to permanently reduce from time to time the revolving term commitment in increments of $500,000 by giving CoBank ten days prior written notice. The revolving loan requires ICP to pay CoBank a nonrefundable commitment fee equal to 0.75% per annum multiplied by the average daily positive difference between the amounts of (i) the revolving term commitment, minus (ii) the aggregate principal amount of all loans outstanding under the revolving loan. Interest on the unpaid principal amount of the loan accrues, pursuant to ICP’s election of the LIBOR Index Option, at a rate equal to 3.75% plus the one-month LIBOR index rate.

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Under the terms of the credit facilities, ICP is required to maintain working capital of not less than $8.0 million. In addition, ICP is required to maintain an annual debt service coverage ratio of not less than 1.50 to 1.00 beginning for the year ending December 31, 2018.

As of December 31, 2018 and the filing of this report, the Company believes ICP is in compliance with its working capital requirement.

Pacific Aurora Line of Credit – On March 30, 2018, Pacific Aurora, LLC, terminated its revolving credit facility, which was unused during the year ended December 31, 2018. As a result, the Company fully amortized its deferred financing fees of $0.3 million for the year ended December 31, 2018 related to this credit facility.

Pacific Ethanol, Inc. Notes Payable – On December 12, 2016, Pacific Ethanol entered into a Note Purchase Agreement (the "Note Purchase Agreement") with five accredited investors. On December 15, 2016, under the terms of the Note Purchase Agreement, Pacific Ethanol sold $55.0 million in aggregate principal amount of its senior secured notes to the Investors in a private offering for aggregate gross proceeds of 97% of the principal amount of the Notes sold. On June 26, 2017, the Company entered into a second Note Purchase Agreement with five accredited investors. On June 30, 2017, under the terms of the second Note Purchase Agreement, the Company sold an additional $13.9 million in aggregate principal amount of its senior secured notes to the investors in a private offering for aggregate gross proceeds of 97% of the principal amount of the notes sold (collectively with the notes sold on December 15, 2016, the "Notes"), for a total of $68.9 million in aggregate principal amount of Notes.

The Notes mature on December 15, 2019 (the "Maturity Date"). Interest on the Notes accrues at a rate equal to (i) the greater of 1% and the three-month LIBOR, plus 7.0% from the closing through December 14, 2017, (ii) the greater of 1% and LIBOR, plus 9% between December 15, 2017 and December 14, 2018, and (iii) the greater of 1% and LIBOR plus 11% between December 15, 2018 and the Maturity Date. The interest rate increases by an additional 2% per annum above the interest rate otherwise applicable upon the occurrence and during the continuance of an event of default until such event of default has been cured. Interest is payable in cash on the 15th calendar day of each March, June, September and December. Pacific Ethanol is required to pay all outstanding principal and any accrued and unpaid interest on the Notes on the Maturity Date. Pacific Ethanol may, at its option, prepay the outstanding principal amount of the Notes at any time without premium or penalty. The Notes contain a variety of events of default. The payments due under the Notes rank senior to all other indebtedness of Pacific Ethanol, other than permitted senior indebtedness. The Notes contain a variety of obligations on the part of Pacific Ethanol not to engage in certain activities, including that (i) Pacific Ethanol and certain of its subsidiaries will not incur other indebtedness, except for certain permitted indebtedness, (ii) Pacific Ethanol and certain of its subsidiaries will not redeem, repurchase or pay any dividend or distribution on their respective capital stock without the prior consent of the holders of the Notes holding 66-2/3% of the aggregate principal amount of the Notes, other than certain permitted distributions, (iii) Pacific Ethanol and certain of its subsidiaries will not sell, lease, assign, transfer or otherwise dispose of any assets of Pacific Ethanol or any such subsidiary, except for certain permitted dispositions (including the sales of inventory or receivables in the ordinary course of business), and (iv) Pacific Ethanol and certain of its subsidiaries will not issue any capital stock or membership interests for any purpose other than to pay down a portion of all of the amounts owed under the Notes and in connection with Pacific Ethanol's stock incentive plans. The Notes are secured by a first-priority security interest in the equity interest held by Pacific Ethanol in its wholly-owned subsidiary, PE Op. Co., which indirectly owns the Company's plants located on the West Coast.

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During the year ended December 31, 2018, the Company made voluntary principal prepayments of $2,000,000 from the proceeds of certain equity issuances.

Pacific Ethanol West Plants' Term Debt – The Pacific Ethanol West Plants' debt as of December 31, 2015 consisted of a $17,003,000 tranche A-1 term loan which was to mature in June 2016. 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. The purchase increased the amount of the term debt held by Pacific Ethanol from $41,763,000 at December 31, 2015 to $58,766,000 at December 31, 2016 and 2017, which is eliminated upon consolidation, as the Company has no continuing obligations to any third-party lender under the credit agreements associated with this term debt.

Maturities of Long-term Debt – The Company's long-term debt matures as follows (in thousands):

December 31:	
2019	$86,260
2020	20,000
2021	19,500
2022	107,745
2023	—
	$233,505

9. 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. The Company assumed the Retirement Plan as part of its acquisition of PE Central on July 1, 2015. Benefits are based on a prescribed formula based upon the employee's years of service. Employees hired after November 1, 2010, are not 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 required by applicable regulations.

PACIFIC ETHANOL, INC.

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Information related to the Retirement Plan as of and for the years ended December 31, 2018, 2017 and 2016 is presented below (dollars in thousands):

	2018	2017	2016
Changes in plan assets:			
Fair value of plan assets, beginning	$13,958	$12,423	$12,567
Actual gains (losses)	(946)	1,722	523
Benefits paid	(667)	(665)	(667)
Company contributions	912	478	—
Participant contributions	—	—	—
Fair value of plan assets, ending	$13,257	$13,958	$12,423
Less: projected accumulated benefit obligation	$18,690	$19,658	$18,455
Funded status, (underfunded)/overfunded	$(5,433)	$(5,700)	$(6,032)
Amounts recognized in the consolidated balance sheets:			
Other liabilities	$(5,433)	$(5,700)	$(6,032)
Accumulated other comprehensive loss (income)	$1,069	$726	$1,047
Components of net periodic benefit costs are as follows:			
Service cost	$424	$391	$223
Interest cost	694	750	686
Expected return on plan assets	(816)	(674)	(794)
Net periodic benefit cost	$302	$467	$115
Loss (gain) recognized in other comprehensive income (expense)	$343	$(321)	$1,932
Assumptions used in computation benefit obligations:			
Discount rate	4.15%	3.60%	4.15%
Expected long-term return on plan assets	6.25%	6.00%	6.75%
Rate of compensation increase	—	—	—

The Company expects to make contributions in the year ending December 31, 2019 of approximately $0.6 million. Net periodic benefit cost for 2019 is estimated at approximately $0.4 million.

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

December 31:	
2019	$760
2020	790
2021	800
2022	840
2023	890
2024-28	5,100
	$9,180

See Note 15 for discussion of the Retirement 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.

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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. The Company assumed the Postretirement Plan as part of its acquisition of PE Central on July 1, 2015. 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.

Information related to the Postretirement Plan as of December 31, 2018 and 2017 is presented below (dollars in thousands):

	2018	2017
Amounts at the end of the year:		
Accumulated/projected benefit obligation	$5,711	$5,565
Fair value of plan assets	—	—
Funded status, (underfunded)/overfunded	$(5,711)	$(5,565)
Amounts recognized in the consolidated balance sheets:		
Accrued liabilities	$(320)	$(240)
Other liabilities	$(5,392)	$(5,325)
Accumulated other comprehensive loss	$1,390	$1,508

Information related to the Postretirement Plan for the years ended December 31, 2018, 2017 and 2016 is presented below (dollars in thousands):

	Years Ended December 31,		
	2018	2017	2016
Amounts recognized in the plan for the year:			
Company contributions	$137	$157	$163
Participant contributions	$14	$22	$22
Benefits paid	$(152)	$(179)	$(184)

Components of net periodic benefit costs are as follows:

Service cost	$84	$84	$48
Interest cost	182	198	139
Amortization of prior service costs	131	134	—
Net periodic benefit cost	$397	$416	$187
Loss (gain) recognized in other comprehensive income	$(118)	$(65)	$1,728
Discount rate used in computation of benefit obligations	3.35%	3.80%	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, 2019.

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

December 31:	
2019	$320
2020	320
2021	370
2022	360
2023	390
2024-28	2,350
	$4,110

For purposes of determining the cost and obligation for pre-Medicare postretirement medical benefits, 6.75% and 7.00% annual rates of increases in the per capita cost of covered benefits (i.e., health care trend rate) was assumed for the plan in 2018 and 2017, respectively, adjusting to a rate of 4.50% in 2026. Assumed health care cost trend rates have a significant effect on the amounts reported for health care plans.

10. INCOME TAXES.

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

	Years Ended December 31,		
	2018	2017	2016
Current provision (benefit)	$(589)	$(490)	$141
Deferred provision (benefit)	27	169	(1,122)
Total	$(562)	$(321)	$(981)

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,		
	2018	2017	2016
Statutory rate	21.0 %	35.0 %	35.0 %
State income taxes, net of federal benefit	5.4	4.0	6.4
Change in valuation allowance	(20.3)	(34.5)	(298.8)
Impact of Federal tax rate change on deferred taxes	—	(28.4)	—
Impact of Federal tax rate change on valuation allowance	—	29.4	—
Fair value adjustments and warrant inducements	—	0.4	37.2
Noncontrolling interest	(3.0)	(3.2)	—
Stock compensation	—	(0.1)	58.8
Non-deductible items	(0.7)	(0.2)	8.9
Other	(1.6)	(1.6)	(27.5)
Effective rate	0.8 %	0.8 %	(180.0)%

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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,	
	2018	2017
Deferred tax assets:		
Net operating loss carryforwards	$48,082	$40,989
R&D, energy and AMT credits	4,247	1,797
Disallowed interest	3,769	—
Railcar contracts	650	1,415
Stock-based compensation	782	738
Allowance for doubtful accounts and other assets	643	637
Derivatives	1,214	267
Pension liability	2,941	2,939
Other	2,134	2,097
Total deferred tax assets	64,462	50,879
Deferred tax liabilities:		
Property and equipment	(23,013)	(25,194)
Intangibles	(749)	(749)
Other	(363)	(521)
Total deferred tax liabilities	(24,125)	(26,464)
Valuation allowance	(40,588)	(24,639)
Net deferred tax liabilities, included in other liabilities	$(251)	$(224)

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 due to this limitation, the Company had remaining federal net operating loss carryforwards of approximately $183,212,000 and state net operating loss carryforwards of approximately $166,032,000 at December 31, 2018. These net operating loss carryforwards expire as follows (in thousands):

Tax Years	Federal	State
2019–2023	$—	$—
2024–2028	12,256	20,217
2029–2033	98,360	49,947
2034 and after	40,955	95,868
Non-expiring NOLs	31,641	—
Total NOLs	$183,212	$166,032

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):

Year	Federal	State
2019	$94,739	$108,956
2020	6,374	5,345
2021	6,308	5,318
2022	6,308	5,318
2023	6,308	5,318

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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 was established in the amount of $40,588,000, $24,639,000 and $12,683,000 at December 31, 2018, 2017 and 2016, respectively, based on the Company's assessment of the future realizability of certain deferred tax assets. The valuation allowance on deferred tax assets is related to future deductible temporary differences and net operating loss carryforwards 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.

For the year ended December 31, 2018, the Company recorded an increase in the valuation allowance of $15,949,000. This increase was primarily the offsetting impact of an increase in deferred tax assets associated with additional net operating losses in 2018. For the year ended December 31, 2017, the Company recorded an increase in the valuation allowance of $11,956,000. This increase was primarily the offsetting impact of a decrease in deferred tax liabilities associated with property and equipment, as a result of the finalization of the deferred tax attributes of Pacific Aurora, which was subject to the sale of a noncontrolling interest in 2016. For the year ended December 31, 2016, the Company recorded a decrease in the valuation allowance of $27,155,000, including approximately $13,500,000 related to finalizing certain aspects of the deferred tax attributes of the Company's acquisition of PE Central in 2015, and approximately $11,500,000 related to the sale of the noncontrolling interest in Pacific Aurora.

At December 31, 2018 and 2017, the Company accrued $235,000 in tax uncertainties related to a refund claim. There was no accrued interest or penalties relating to tax uncertainties at December 31, 2016.

The Tax Cuts and Jobs Act ("TCJA") was enacted on December 22, 2017. The Company recognized the income tax effects of the TCJA in its 2017 financial statements in accordance with Staff Accounting Bulletin No. 118, which provides SEC staff guidance for the application of ASC Topic 740, *Income Taxes*, in the reporting period in which the TCJA was signed into law. The Company did not identify items for which the income tax effects of the TCJA was not completed as of December 31, 2017.

Amounts recorded where accounting was complete principally related to the reduction in the U.S. corporate income tax rate to 21%. This resulted in the Company reporting an income tax benefit of $321,000 as the deferred tax liabilities associated with indefinite lived intangible assets were remeasured at the new 21% rate. This rate reduction decreased gross deferred assets by approximately $10,170,000 and valuation allowance by $10,545,000. Absent this deferred tax liability, the Company is in a net deferred tax asset position that is offset by a full valuation allowance, resulting in a net tax effect of zero.

For the year ended December 31, 2018, provisions of Internal Revenue Code Section 163(j), as amended by the TCJA, became effective which now limit the deductibility of interest expense to 30% of adjusted taxable income. The Company recorded a related deferred asset of $3,749.000 at December 31, 2018 which has been fully offset by a valuation allowance. Another significant provision of the TCJA is a limitation of net operating losses generated after fiscal year 2017 with no ability to carryback.

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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:

Jurisdiction	Tax Years
Federal	2015 – 2017
Arizona	2015 – 2017
California	2014 – 2017
Colorado	2014 – 2017
Idaho	2015 – 2017
Illinois	2014 – 2017
Indiana	2015 – 2017
Iowa	2015 – 2017
Kansas	2015 – 2017
Minnesota	2015 – 2017
Missouri	2015 – 2017
Nebraska	2015 – 2017
Oklahoma	2015 – 2017
Oregon	2015 – 2017
Texas	2014 – 2017

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.

11. 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, 2018, 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, 2018 and 2017. 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.

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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.

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, 2018 and 2017. 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, 2018, 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.

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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.

The Company accrued and paid in cash preferred stock dividends of $1,265,000, $1,265,000 and $1,269,000 for the years ended December 31, 2018, 2017 and 2016, respectively.

12. COMMON STOCK AND WARRANTS.

The following table summarizes warrant activity for the years ended December 31, 2018, 2017 and 2016 (number of shares in thousands):

	Number of Shares	Price per Share	Weighted Average Exercise Price
Balance at December 31, 2015	382	$6.09 – $735.00	$ 70.87
Warrants exercised	(138)	$8.43	$ 8.43
Balance at December 31, 2016	244	$6.09 – $735.00	$ 106.72
Warrants exercised	(191)	$6.09	$ 6.09
Warrants expired	(49)	$6.09 – $735.00	$ 444.00
Balance at December 31, 2017	4	$735.00	$ 735.00
Warrants expired	(4)	$735.00	$ 735.00
Balance at December 31, 2018	—	$—	$ —

July 2012 Public Offering – On July 3, 2012, in connection with a public offering, the Company issued warrants to purchase an aggregate of 1,867,000 shares of the Company's common stock. The warrants were issued at an initial exercise price of $9.45 per share, which was subject to certain "weighted-average" anti-dilution adjustments. As a result of anti-dilution adjustments, the exercise price was reduced to $6.09 per share. The balance of these warrants expired unexercised in 2017.

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Accounting for Warrants – The Company determined that certain warrants issued in 2011 and 2012 did not meet the conditions for classification in stockholders' equity and, as such, the Company recorded them as a liability at fair value. The Company revalued them at each reporting period. Accordingly, the Company recorded fair value adjustments quarterly, with total fair value adjustments of $473,000 of income and $557,000 of expense for the years ended December 31, 2017 and 2016, respectively, which was largely attributed to adjustments 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. As of December 31, 2018 and 2017, there were no warrants outstanding for which the Company accounts using fair value methodologies.

Nonvoting Common Stock – In connection with the Company's PE Central acquisition, the Company issued nonvoting common shares exercisable at the holders' election. During the year ended December 31, 2017, 3,539,236 shares of nonvoting common stock were exchanged for an equal number of shares of the Company's common stock upon the holders' request. As of December 31, 2018, 896 shares of nonvoting common stock were outstanding.

At-the-Market Program – The Company has established an "at-the-market" equity distribution program under which we may offer and sell shares of common stock to, or through, sales agents by means of ordinary brokers' transactions on the NASDAQ, in block transactions, or as otherwise agreed to between us and the sales agent at prices we deem appropriate. We are under no obligation to offer and sell shares of common stock under the program. For the year ended December 31, 2018, the Company sold 838,213 shares of common stock through its "at-the-market" equity program that resulted in net proceeds of $2,056,966 and fees paid to our sales agent of $36,951. The net proceeds from these issuances were used to prepay a portion of our senior secured notes maturing December 15, 2019.

13. STOCK-BASED COMPENSATION.

The Company has two equity incentive compensation plans: a 2006 Stock Incentive Plan and a 2016 Stock Incentive Plan.

2006 Stock Incentive Plan – The 2006 Stock Incentive Plan authorized the issuance of incentive stock options ("ISOs") and non-qualified stock options ("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. In June 2016, this plan was terminated, except to the extent of issued and outstanding unvested stock awards and options.

2016 Stock Incentive Plan – On June 16, 2016, the Company's shareholders approved the 2016 Stock Incentive Plan, which 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 initially for up to an aggregate of 1,150,000 shares of common stock. On June 14, 2018, the Company's shareholders approved an increase to the aggregate number of shares authorized under the 2016 Stock Incentive Plan to 3,650,000.

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Stock Options – Summaries of the status of Company's stock option plans as of December 31, 2018 and 2017 and of changes in options outstanding under the Company's plans during those years are as follows (number of shares in thousands):

	Years Ended December 31,			
	2018		2017	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Outstanding at beginning of year	230	$ 4.18	240	$ 4.18
Exercised/cancelled	(1)	12.90	(10)	3.74
Outstanding at end of year	229	$ 4.15	230	$ 4.18
Options exercisable at end of year	229	$ 4.15	230	$ 4.18

Stock options outstanding as of December 31, 2018 were as follows (number of shares in thousands):

	Options Outstanding			Options Exercisable	
Range of Exercise Prices	Number Outstanding	Weighted Average Remaining Contractual Life (yrs.)	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
$3.74	219	4.47	$ 3.74	219	$3.74
$12.90	10	2.59	$ 12.90	10	$12.90

The intrinsic value of options outstanding were none and $84,000 at December 31, 2018 and 2017, respectively. The intrinsic value of options exercised in 2017 was approximately $30,000.

Restricted Stock – The Company granted to certain employees and directors shares of restricted stock under its 2006 and 2016 Stock Incentive Plans. 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, 2015	463	$ 10.00
Issued	742	$ 5.24
Vested	(250)	$ 9.01
Canceled	(25)	$ 6.24
Unvested at December 31, 2016	930	$ 6.57
Issued	664	$ 6.65
Vested	(480)	$ 7.30
Canceled	(37)	$ 6.08
Unvested at December 31, 2017	1,077	$ 6.31
Issued	1,175	$ 3.07
Vested	(540)	$ 7.69
Canceled	(77)	$ 7.14
Unvested at December 31, 2018	1,635	$ 3.49

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The fair value of the common stock at vesting aggregated $1,629,000, $3,210,000 and $1,142,000 for the years ended December 31, 2018, 2017 and 2016, 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,		
	2018	2017	2016
Employees	$2,905	$3,303	$2,173
Non-employees	533	525	443
Total stock-based compensation expense	$3,438	$3,828	$2,616

Employee grants typically have a three year vesting schedule, while the non-employee grants have a one year vesting schedule. At December 31, 2018, the total compensation expense related to unvested awards which had not been recognized was $3,648,000 and the associated weighted-average period over which the compensation expense attributable to those unvested awards will be recognized was approximately 1.63 years.

14. COMMITMENTS AND CONTINGENCIES.

Commitments – The following is a description of significant commitments at December 31, 2018:

Leases – Future minimum lease payments required by non-cancelable leases in effect at December 31, 2018 were as follows (in thousands):

Years Ended December 31,	Capital Leases	Operating Leases
2019	$ 45	$ 10,207
2020	45	8,423
2021	33	5,441
2022	—	5,233

2023	—	4,511
Thereafter	—	8,413
Total minimum payments	123	$ 42,228
Obligations due within one year	(45)	
Long-term obligations under capital leases	$ 78	

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Total rent expense during the years ended December 31, 2018, 2017 and 2016 was $12,436,000, $16,572,000 and $16,253,000, respectively.

Sales Commitments – The Company had open ethanol indexed-price contracts for 258,200,000 gallons of ethanol as of December 31, 2018 and open fixed-price ethanol sales contracts totaling $92,900,000 as of December 31, 2018. The Company had open fixed-price co-product sales contracts totaling $44,800,000 as of December 31, 2018 and open indexed-price co-product sales contracts for 801,000 tons as of December 31, 2018. These sales contracts are scheduled to be completed throughout 2019.

Purchase Commitments – At December 31, 2018, the Company had indexed-price purchase contracts to purchase 30,800,000 gallons of ethanol and fixed-price purchase contracts to purchase $6,605,000 of ethanol from its suppliers. The Company had fixed-price purchase contracts to purchase $28,294,000 of corn from its suppliers. These purchase commitments are scheduled to be satisfied throughout 2019.

Assessment Financing – In September 2016, the Company signed an agreement to finance and construct a 5 megawatt solar project at its Madera facility. The amount financed is for up to $10.0 million, to be amortized over twenty years as part of the facility's property tax assessments. As of December 31, 2018 and 2017, the Company had outstanding $9,342,000 and $7,714,000, respectively in the accompanying consolidated balance sheets attributable to this financing. The Company expects to pay an additional $0.9 million per year in connection with its property tax payments, which includes an interest component based upon a 5.6% interest rate on the outstanding balance of the assessment**.**

Contingencies – The following is a description of significant contingencies at December 31, 2018:

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.

The Company assumed certain legal matters which were ongoing at July 1, 2015, the date of the Company's acquisition of PE Central. Among them were lawsuits between Aventine Renewable Energy, Inc. (now known as Pacific Ethanol Pekin, LLC, or "PE Pekin") and Glacial Lakes Energy, Aberdeen Energy and Redfield Energy, together, the "Defendants," in which PE Pekin sought damages for breach of termination agreements that wound down ethanol marketing arrangements between PE Pekin and each of the Defendants. In February and March 2017, the Company and the Defendants entered into settlement agreements and the Defendants paid in cash to the Company $3.9 million in final resolution of these matters. The Company did not assign any value to the claims against the Defendants in its accounting for the PE Central acquisition as of July 1, 2015. The Company recorded a gain, net of legal fees, of $3.6 million upon receipt of the cash settlement and recognized the gain as a reduction to selling, general and administrative expenses in the consolidated statements of operations for the year ended December 31, 2017.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Pacific Ethanol, Inc., through a subsidiary acquired in its acquisition of PE Central, became involved in a pending lawsuit with Western Sugar Cooperative (“Western Sugar”) that pre-dated the 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 PE Central’s subsidiary as defendant. The PE Central subsidiary purchased surplus sugar through a United States Department of Agriculture program. Western Sugar was one of the entities that warehoused this sugar for the PE Central subsidiary. The suit alleged that the PE Central subsidiary 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 alleged that the penalty rates applied because the PE Central subsidiary failed to take timely delivery or otherwise cause timely shipment of the sugar. Western Sugar claimed “expectation damages” in the amount of approximately $8.6 million. On December 29, 2016, Western Sugar and the PE Central subsidiary entered into a settlement pursuant to which the PE Central subsidiary paid $1.7 million and Western Sugar filed a Stipulation of Dismissal with prejudice. As a result, the Company reduced its litigation reserve of $2.8 million and recognized the recovery of $1.1 million as a reduction to selling, general and administrative expenses for the year ended December 31, 2016.

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.

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.

A trial in the District Court for the Southern District of Indiana was conducted in October 2015 on the inequitable conduct issue as well as whether GS CleanTech's behavior during prosecution of the patents rendered this an "exceptional case" which would allow the District Court to award the Defendants reimbursement of their attorneys' fees expended for defense of the case.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

On September 15, 2016, the District Court issued an Order finding that GS CleanTech, the inventors and GS CleanTech's counsel committed inequitable conduct in the prosecution of the GS CleanTech patents before the United States Patent and Trademark Office. As a result, the District Court issued a Final Judgment on September 15, 2016 dismissing with prejudice all of GS CleanTech's cases against the Defendants, including Pacific Ethanol, Inc., PE Stockton and PE Magic Valley. The District Court's ruling of inequitable conduct results in the unenforceability of the GS CleanTech patents against third parties, and also enables the Defendants to pursue reimbursement of their costs and attorneys' fees from GS CleanTech and its counsel. GS CleanTech subsequently appealed the District Court's finding that all of the GS CleanTech patents were invalid and its finding that the inventors and GS CleanTech's counsel committed inequitable conduct. The appeal is still pending before the Court of Appeals for the Federal Circuit.

The Company has evaluated the above cases as well as other pending cases. The Company currently has not recorded a litigation contingency liability with respect to these cases.

15. 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.

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.

The following table summarizes recurring fair value measurements by level at December 31, 2018 (in thousands):

	Fair Value	Level 1	Level 2	Level 3	Benefit Plan Percentage Allocation	
Assets:						
Derivative financial instruments	$1,765	$1,765	$—	$ —		
Defined benefit plan assets(1) (pooled separate accounts):						
Large U.S. Equity(2)	3,621	—	3,621	—	27	%
Small/Mid U.S. Equity(3)	1,844	—	1,844	—	14	%
International Equity(4)	2,106	—	2,106	—	16	%
Fixed Income(5)	5,686	—	5,686	—	43	%
	$15,022	$1,765	$13,257	$ —		
Liabilities:						
Derivative financial instruments	$(6,309)	$(6,309)	$—	$ —		

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The following table summarizes recurring fair value measurements by level at December 31, 2017 (in thousands):

	Fair Value	Level 1	Level 2	Level 3	Benefit Plan Percentage Allocation
Assets:					
Derivative financial instruments	$998	$998	$—	$ —	
Defined benefit plan assets(1) (pooled separate accounts):					
Large U.S. Equity(2)	3,748	—	3,748	—	27 %
Small/Mid U.S. Equity(3)	2,018	—	2,018	—	14 %
International Equity(4)	2,528	—	2,528	—	18 %
Fixed Income(5)	5,664	—	5,664	—	41 %
	$14,956	$998	$13,958	$ —	
Liabilities:					
Derivative financial instruments	$(2,307)	$(2,307)	$—	$ —	

(1) See Note 9 for accounting discussion.

(2) 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.

(3) 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.

(4) 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.

(5) 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.

16. PARENT COMPANY FINANCIALS.

Restricted Net Assets – At December 31, 2018, the Company had approximately $190,200,000 of net assets at its subsidiaries that were not available to be transferred to Pacific Ethanol in the form of dividends, distributions, loans or advances due to restrictions contained in the credit facilities of these subsidiaries.

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Parent company financial statements for the periods covered in this report are set forth below.

	December 31, 2018	December 31, 2017
ASSETS		
Current Assets:		
Cash and cash equivalents	$6,759	$5,314
Receivables from subsidiaries	17,156	3,138
Other current assets	1,659	1,631
Total current assets	25,574	10,083
Property and equipment, net	522	1,071
Other Assets:		
Investments in subsidiaries	286,666	359,680
Pacific Ethanol West plant receivable	58,766	58,766
Other assets	1,437	1,565
Total other assets	346,869	420,011
Total Assets	$372,965	$431,165
Current Liabilities:		
Accounts payable and accrued liabilities	$2,469	$2,218
Payable to subsidiaries	—	625
Accrued PE Op Co. purchase	3,829	3,828
Current portion of long-term debt	66,255	—
Other current liabilities	385	245
Total current liabilities	72,938	6,916
Long-term debt, net	—	67,530
Deferred tax liabilities	251	224
Other liabilities	9	56
Total Liabilities	73,198	74,726
Stockholders' Equity:		
Preferred stock	1	1
Common and non-voting common stock	46	44
Additional paid-in capital	932,179	927,090
Accumulated other comprehensive loss	(2,459)	(2,234)
Accumulated deficit	(630,000)	(568,462)

Total Pacific Ethanol, Inc. stockholders' equity	299,767	356,439
Total Liabilities and Stockholders' Equity	$372,965	$431,165

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	Years Ended December 31,		
	2018	2017	2016
Management fees from subsidiaries	$12,408	$11,904	$12,968
Selling, general and administrative expenses	16,795	18,185	14,491
Loss from operations	(4,387)	(6,281)	(1,523)
Fair value adjustments	—	473	(557)
Interest income	4,703	4,793	5,964
Interest expense	(8,678)	(5,829)	(240)
Other income (expense), net	(74)	(95)	1,931
Income (loss) before provision (benefit) for income taxes	(8,436)	(6,939)	5,575
Provision (benefit) for income taxes	(562)	(321)	(981)
Income (loss) before equity in earnings of subsidiaries	(7,874)	(6,618)	6,556
Equity in losses of subsidiaries	(52,399)	(28,346)	(5,137)
Consolidated net income (loss)	$(60,273)	$(34,964)	$1,419

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	For the Years Ended December 31,		
	2018	2017	2016
Operating Activities:			
Net income (loss)	$(60,273)	$(34,964)	$1,419
Adjustments to reconcile net income (loss) to cash provided by operating activities:			
Equity in losses of subsidiaries	52,399	28,346	5,137
Dividends from subsidiaries	25,000	3,500	—
Depreciation	567	830	727
Fair value adjustments	—	(473)	557
Deferred income taxes	27	169	(1,122)
Amortization of debt discounts	720	636	10
Changes in operating assets and liabilities:			
Accounts receivables	(9,018)	4,065	7,302
Other assets	100	4,356	4,647
Accounts payable and accrued expenses	740	3,859	(3,741)
Accounts payable with subsidiaries	2,409	(943)	(9,385)
Net cash provided by operating activities	$12,671	$9,381	$5,551
Investing Activities:			
Additions to property and equipment	$(18)	$(468)	$(465)
Investments in subsidiaries	(10,000)	(28,126)	(50,886)
Purchase of PE OP Co. debt	—	—	(17,003)
Net cash used in investing activities	$(10,018)	$(28,594)	$(68,354)
Financing Activities:			
Proceeds from issuances of senior notes	$—	$13,530	$53,350
Proceeds from issuance of common stock	2,057	—	—
Proceeds from warrant stock option exercises	—	1,202	1,164
Payments on senior notes	(2,000)	—	—
Preferred stock dividend payments	(1,265)	(1,265)	(1,269)
Net cash provided by (used in) financing activities	$(1,208)	$13,467	$53,245
Net increase (decrease) in cash and cash equivalents	1,445	(5,746)	(9,558)
Cash and cash equivalents at beginning of period	5,314	11,060	20,618
Cash and cash equivalents at end of period	$6,759	$5,314	$11,060

PACIFIC ETHANOL, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

17. QUARTERLY FINANCIAL DATA (UNAUDITED).

The Company's quarterly results of operations for the years ended December 31, 2018 and 2017 are as follows (in thousands).

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
December 31, 2018:				
Net sales	$400,027	$410,522	$370,407	$334,415
Gross profit (loss)	$3,362	$(1,273)	$3,768	$(21,021)
Loss from operations	$(5,953)	$(10,171)	$(5,202)	$(30,211)
Net loss attributed to Pacific Ethanol, Inc.	$(7,841)	$(12,908)	$(7,514)	$(32,010)
Preferred stock dividends	$(312)	$(315)	$(319)	$(319)
Net loss available to common stockholders	$(8,153)	$(13,223)	$(7,833)	$(32,329)
Basic and diluted loss per common share	$(0.19)	$(0.31)	$(0.18)	$(0.74)
December 31, 2017:				
Net sales	$386,340	$405,202	$445,442	$395,271
Gross profit (loss)	$(5,773)	$1,653	$12,065	$(2,014)
Income (loss) from operations	$(11,223)	$(7,109)	$3,345	$(10,598)
Net loss attributed to Pacific Ethanol, Inc.	$(12,636)	$(8,841)	$(202)	$(13,285)
Preferred stock dividends	$(312)	$(315)	$(319)	$(319)
Net loss available to common stockholders	$(12,948)	$(9,156)	$(521)	$(13,604)
Basic and diluted loss per common share	$(0.31)	$(0.22)	$(0.01)	$(0.32)

INDEX TO EXHIBITS

Exhibit Number	Description*	Where Located Form	File Number	Exhibit Number	Filing Date	Filed Herewith
2.1	Agreement and Plan of Merger dated June 26, 2017 among Pacific Ethanol Central, LLC, ICP Merger Sub, LLC, Illinois Corn Processing, LLC, Illinois Corn Processing Holdings Inc. and MGPI Processing, Inc.	8-K	000-21467	2.1	06/27/2017	
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 under 2006 Stock Incentive Plan#	8-K	000-21467	10.2	10/10/2006	
10.3	Form of Non-Employee Director Restricted Stock Agreement under 2006 Stock Incentive Plan#	8-K	000-21467	10.3	10/10/2006	
10.4	2016 Stock Incentive Plan, as amended#	10-Q	000-21467	10.2	05/10/2018	
10.5	Form of Employee Restricted Stock Agreement under 2016 Stock Incentive Plan#	10-K	000-21467	10.5	03/15/2018	
10.6	Form of Non-Employee Director Restricted Stock Agreement under 2016 Stock Incentive Plan#	10-K	000-21467	10.6	03/15/2018	
10.7	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and Neil M. Koehler#	10-K	000-21467	10.7	03/15/2017	

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Exhibit Number	Description*	Where Located Form	File Number	Exhibit Number	Filing Date	Filed Herewith
10.8	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and Christopher W. Wright#	10-K	000-21467	10.8	03/15/2017	
10.9	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and Bryon T. McGregor#	10-K	000-21467	10.9	03/15/2017	
10.10	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and Michael D. Kandris#	10-K	000-21467	10.10	03/15/2017	
10.11	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and Paul P. Kohler#	10-K	000-21467	10.11	03/15/2017	
10.12	Amended and Restated Executive Employment Agreement dated November 7, 2016 between the Registrant and James R. Sneed#	10-K	000-21467	10.12	03/15/2017	
10.13	Pacific Ethanol, Inc. 2016 Short-Term Incentive Plan Description#	10-K	000-21467	10.13	03/15/2017	
10.14	Pacific Ethanol, Inc. 2017 Short-Term Incentive Plan Description#	10-Q	000-21467	10.1	05/10/2017	
10.15	Pacific Ethanol, Inc. 2017 Short-Term Incentive Plan Description#	10-Q	000-21467	10.1	05/10/2018	
10.16	Form of Indemnity Agreement between the Registrant and each of its Executive Officers and Directors#	10-K	000-21467	10.46	03/31/2010	
10.17	Pacific Ethanol, Inc. Policy for Recoupment of Incentive Compensation dated March 29, 2018#					X
10.18	Form of Clawback Policy Acknowledgement and Agreement#					X
10.19	Registration Rights Agreement dated March 27, 2008 between the Registrant and Lyles United, LLC	8-K	000-21467	10.4	03/27/2008	
10.20	Letter Agreement dated March 27, 2008 between the Registrant and Lyles United, LLC	8-K	000-21467	10.5	03/27/2008	
10.21	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	
10.22	Note Purchase Agreement dated December 12, 2016 among Pacific Ethanol, Inc. and the investors listed on the schedule of investors attached thereto	8-K	000-21467	10.2	12/12/2016	

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Exhibit Number	Description*	Where Located Form	File Number	Exhibit Number	Filing Date	Filed Herewith
10.23	Form of Senior Secured Note for an aggregate principal amount of $55,000,000 issued on December 15, 2016 pursuant to the Note Purchase Agreement dated December 12, 2016 among Pacific Ethanol, Inc. and the investors party thereto	8-K	000-21467	10.3	12/20/2016	
10.24	Security Agreement dated December 15, 2016 among Pacific Ethanol, Inc., Cortland Capital Market Services LLC and the holders of Pacific Ethanol, Inc.'s Senior Secured Notes	8-K	000-21467	10.4	12/20/2016	
10.25	Note Purchase Agreement dated June 26, 2017 among Pacific Ethanol, Inc. and the investors listed on the schedule of investors attached thereto	8-K	000-21467	10.1	06/27/2017	
10.26	Consent of Holders and Amendment of Senior Secured Notes dated June 26, 2017 among Pacific Ethanol, Inc. and the holders identified therein	8-K	000-21467	10.2	06/27/2017	
10.27	Form of Senior Secured Note for an aggregate principal amount of $13,948,078 issued on June 30, 2017 pursuant to the Note Purchase Agreement dated June 26, 2017 among Pacific Ethanol, Inc. and the investors party thereto	8-K	000-21467	10.3	07/05/2017	
10.28	First Amendment to Security Agreement dated June 30, 2017 among Pacific Ethanol, Inc., Cortland Capital Market Services LLC and the holders of Pacific Ethanol, Inc.'s Senior Secured Notes	8-K	000-21467	10.5	07/05/2017	
10.29	Secured Promissory Note dated July 3, 2017 by Illinois Corn Processing, LLC in favor of Illinois Corn Processing Holdings Inc.	8-K	000-21467	10.6	07/05/2017	
10.30	Secured Promissory Note dated July 3, 2017 by Illinois Corn Processing, LLC in favor of MGPI Processing, Inc.	8-K	000-21467	10.7	07/05/2017	
10.31	Credit Agreement dated December 15, 2016 among Pacific Ethanol Pekin, Inc., 1st Farm Credit Services, PCA and CoBank, ACB	8-K	000-21467	10.5	12/20/2016	
10.32	Amendment No. 1 to Credit Agreement dated March 1, 2017 among Pacific Ethanol Pekin, LLC, 1st Farm Credit Services, PCA and CoBank, ACB	10-K	000-21467	10.31	03/15/2018	

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		Where Located				
Exhibit Number	**Description***	**Form**	**File Number**	**Exhibit Number**	**Filing Date**	**Filed Herewith**
10.33	Amendment No. 2 to Credit Agreement dated August 7, 2017 among Pacific Ethanol Pekin, LLC, 1st Farm Credit Services, PCA and CoBank, ACB	8-K	000-21467	10.1	08/11/2017	
10.34	Amendment No. 3 to Credit Agreement dated March 30, 2018 among Pacific Ethanol Pekin, LLC, Compeer Financial, PCA, as successor by merger to 1st Farm Credit Services, PCA, and CoBank, ACB	8-K	000-21467	10.1	04/05/2018	
10.35	Second Amended and Restated Term Note dated March 20, 2018 by Pacific Ethanol Pekin, LLC in favor of Compeer Financial, PCA, as successor by merger to 1st Farm Credit Services, PCA	8-K	000-21467	10.2	04/05/2018	
10.36	Security Agreement dated December 15, 2016 between Pacific Ethanol Pekin, Inc. and CoBank, ACB	8-K	000-21467	10.6	12/20/2016	
10.37	Working Capital Maintenance Agreement dated December 15, 2016 between Pacific Ethanol, Inc. and CoBank, ACB	8-K	000-21467	10.9	12/20/2016	
10.38	Second Amended and Restated Credit Agreement dated August 2, 2017 among Kinergy Marketing LLC, Pacific Ag. Products, LLC, Wells Fargo Bank, National Association, and the parties thereto from time to time as lenders	8-K	000-21467	10.1	08/08/2017	
10.39	Second Amended and Restated Guarantee dated August 2, 2017 by Pacific Ethanol, Inc. in favor of Wells Fargo Bank, National Association, for and on behalf of the lenders	8-K	000-21467	10.2	08/08/2017	
10.40	Credit Agreement dated September 15, 2017 between Illinois Corn Processing, LLC, Compeer Financial, PCA and CoBank, ACB	8-K	000-21467	10.1	09/21/2017	
10.41	Term Note dated September 15, 2017 by Illinois Corn Processing, LLC in favor of Compeer Financial, PCA	8-K	000-21467	10.2	09/21/2017	
10.42	Revolving Term Note dated September 15, 2017 by Illinois Corn Processing, LLC in favor of Compeer Financial, PCA	8-K	000-21467	10.3	09/21/2017	
10.43	Illinois Future Advance Real Estate Mortgage dated September 15, 2017 by Illinois Corn Processing, LLC in favor of CoBank, ACB	8-K	000-21467	10.4	09/21/2017	

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Exhibit Number	Description*	Where Located Form	File Number	Exhibit Number	Filing Date	Filed Herewith
10.44	Security Agreement dated September 15, 2017 by Illinois Corn Processing, LLC in favor of CoBank, ACB	8-K	000-21467	10.5	09/21/2017	
21.1	Subsidiaries of the Registrant	10-K	000-21467	21.1	03/15/2018	
23.1	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 18th day of March, 2019.

PACIFIC ETHANOL, INC.

/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.

Signature	Title	Date
/s/ WILLIAM L. JONES William L. Jones	Chairman of the Board and Director	March 18, 2019
/s/ NEIL M. KOEHLER Neil M. Koehler	President, Chief Executive Officer (Principal Executive Officer) and Director	March 18, 2019
/s/ BRYON T. MCGREGOR Bryon T. McGregor	Chief Financial Officer (Principal Financial and Accounting Officer)	March 18, 2019
/s/ MICHAEL D. KANDRIS Michael D. Kandris	Chief Operating Officer and Director	March 18, 2019
/s/ TERRY L. STONE Terry L. Stone	Director	March 18, 2019
/s/ JOHN L. PRINCE	Director	

John L. Prince		March 18, 2019
/s/ DOUGLAS L. KIETA Douglas L. Kieta	Director	March 18, 2019
/s/ LARRY D. LAYNE Larry D. Layne	Director	March 18, 2019