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Green Plains Inc.  
Form 10-K  
February 18, 2016

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2015

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_ to \_\_\_\_

Commission file number 001-32924

Green Plains Inc.

(Exact name of registrant as specified in its charter)

Iowa

(State or other jurisdiction of incorporation or organization)

84-1652107

(I.R.S. Employer Identification No.)

450 Regency Parkway, Suite 400, Omaha, NE 68114

(Address of principal executive offices, including zip code)

(402) 884-8700

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: Common Stock, \$.001 par value

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Name of exchanges on which registered: Nasdaq Global Market

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Yes No

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, 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 and post such files).

Yes No

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

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

Large accelerated filer . Accelerated filer . Non-accelerated filer Smaller reporting company

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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 company's voting common stock held by non-affiliates of the registrant as of June 30, 2015 (the last business day of the second quarter), based on the last sale price of the common stock on that date of \$27.55, was approximately \$980.0 million. For purposes of this calculation, executive officers, directors and holders of 10% or more of the registrant's common stock are deemed to be affiliates of the registrant.

As of February 12, 2016, there were 38,474,154 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive Proxy Statement for the 2016 Annual Meeting of Shareholders are incorporated by reference in Part III herein. The company intends to file such Proxy Statement with the Securities and Exchange Commission no later than 120 days after the end of the period covered by this report on Form 10-K.

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Commonly Used Defined Terms

Green Plains Inc. and Subsidiaries:

Green Plains; the company	Green Plains Inc. and its subsidiaries
Green Plains Cattle	Green Plains Cattle Company LLC
Green Plains Grain	Green Plains Grain Company LLC
Green Plains Fairmont	Green Plains Fairmont LLC
Green Plains Hereford	Green Plains Hereford LLC
Green Plains Holdings II	Green Plains Holdings II LLC
Green Plains Hopewell	Green Plains Hopewell LLC
Green Plains Obion	Green Plains Obion LLC
Green Plains Operating Company	Green Plains Operating Company LLC
Green Plains Otter Tail	Green Plains Otter Tail LLC
Green Plains Partners; the partnership	Green Plains Partners LP
Green Plains Processing	Green Plains Processing LLC and its subsidiaries
Green Plains Superior	Green Plains Superior LLC
Green Plains Trade	Green Plains Trade Group LLC
Green Plains Wood River	Green Plains Wood River LLC

Accounting Defined Terms:

ASC	Accounting Standards Codification
EBITDA	Earnings before interest, income taxes, depreciation and amortization
EPS	Earnings per share
Exchange Act	Securities Exchange Act of 1934, as amended
GAAP	U.S. Generally Accepted Accounting Principles
IPO	Initial public offering of Green Plains Partners LP
LIBOR	London Interbank Offered Rate
LTIP	Green Plains Partners LP 2015 Long-Term Incentive Plan
Nasdaq	The Nasdaq Global Market
SEC	Securities and Exchange Commission

Securities Act Securities Act of 1933, as amended

Industry Defined Terms:

Bgy Billion gallons per year  
BTU British Thermal Units  
CAFE Corporate Average Fuel Economy  
CARB California Air Resources Board  
CBOB Conventional blendstock for oxygenate blending  
CFTC Commodity Futures Trading Commission  
DOT U.S. Department of Transportation  
E15 Gasoline blended with up to 15% ethanol by volume  
E85 Gasoline blended with up to 85% ethanol by volume  
EIA U.S. Energy Information Administration  
EISA Energy Independence and Security Act of 2007, as amended  
EPA U.S. Environmental Protection Agency  
EPMA Energy Policy Modernization Act  
EU European Union  
FDA U.S. Food and Drug Administration  
FSMA Food Safety Modernization Act of 2011  
ILUC Indirect land usage charge  
LCFS Low Carbon Fuel Standard  
Mmg Million gallons  
Mmgy Million gallons per year  
MTBE Methyl tertiary-butyl ether

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Reform Act Dodd-Frank Wall Street Reform and Consumer Protection Act  
RFS II Renewable Fuels Standard II  
RIN Renewable identification number  
U.S. United States  
USDA U.S. Department of Agriculture

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## Cautionary Statement Regarding Forward-Looking Statements

The SEC encourages companies to disclose forward-looking information so investors can better understand future prospects and make informed investment decisions. As such, we have included forward-looking statements in this report or by reference to other documents filed with the SEC.

Forward-looking statements are made in accordance with safe harbor provisions of the Private Securities Litigation Reform Act of 1995. These statements are based on current expectations which involve a number of risks and uncertainties and do not relate strictly to historical or current facts, but rather to plans and objectives for future operations. These statements include words such as “anticipate,” “believe,” “continue,” “estimate,” “expect,” “intend,” “outlook,” “plan,” “predict,” “may,” “could,” “should,” “will” and similar words and phrases as well as statements regarding future operations or financial performance or guidance, business strategy, environment, key trends and benefits of actual or planned acquisitions.

Factors that could cause actual results to differ from those expressed or implied are discussed in this report under “Risk Factors” or incorporated by reference. Specifically, we may experience fluctuations in future operating results due to a number of economic conditions, including: competition in the ethanol industry and other industries in which we operate; commodity market risks, including those that may result from weather conditions; financial market risks; counterparty risks; risks associated with changes to federal policy or regulation; risks related to acquisitions and achieving anticipated results; risks associated with merchant trading, cattle feed operations, algae production and other factors detailed in reports filed with the SEC. Additional risks related to our newly formed subsidiary, Green Plains Partners LP include compliance with commercial contractual obligations, potential tax consequences related to our investment in the partnership and risks disclosed in the partnership’s SEC filings associated with the operation of the partnership as a separate, publicly traded entity.

We believe our expectations regarding future events are based on reasonable assumptions; however, these assumptions may not be accurate or account for all risks and uncertainties. Consequently, forward-looking statements are not guaranteed. Actual results may vary materially from those expressed or implied in our forward-looking statements. In addition, we are not obligated and do not intend to update our forward-looking statements as a result of new information unless it is required by applicable securities laws. We caution investors not to place undue reliance on forward-looking statements, which represent management’s views as of the date of this report or document incorporated by reference.

## PART I

Item 1. Business.

References to “we,” “us,” “our,” “Green Plains,” or the “company” refer to Green Plains Inc. and its subsidiaries.

Overview

Green Plains is an Iowa corporation that was founded in June 2004. We are a Fortune 1000, vertically integrated ethanol producer, marketer and distributor focused on generating stable operating margins through our diversified business segments and risk management strategy. We have operations throughout the ethanol value chain, beginning upstream with grain handling and storage, continuing through ethanol, distillers grains and corn oil production and ending downstream with our marketing and distribution services. We believe owning and operating assets throughout the ethanol value chain enables us to mitigate volatility in commodity prices, differentiating us from companies focused only on ethanol production.

We group our business activities into four operating segments to manage performance:

- Ethanol Production. Our ethanol production segment includes 14 ethanol plants in Indiana, Iowa, Michigan, Minnesota, Nebraska, Tennessee, Texas and Virginia. At capacity, we expect to process approximately 430 million bushels of corn per year and produce approximately 1.2 billion gallons of ethanol, 3.4 million tons of distillers grains and 275 million pounds of industrial grade corn oil, making us the fourth largest ethanol producer in North America.
- Agribusiness. Our agribusiness segment includes grain procurement and storage capacity of approximately 58.6 million bushels and a cattle feedlot operation with the capacity to support 70,000 head of cattle.

- **Marketing and Distribution.** Our marketing and distribution segment markets, sells and distributes ethanol, distillers grains and corn oil produced at our ethanol plants. We also market ethanol for a third-party producer and buy and sell ethanol, distillers grains, corn oil, grain, natural gas and other commodities in various markets.
- **Partnership.** Our master limited partnership provides fuel storage and transportation services by owning, operating, developing and acquiring ethanol and fuel storage tanks, terminals, transportation assets and other related assets and businesses. The partnership's assets include 30 ethanol storage facilities, 8 fuel terminal facilities and approximately 2,500 leased railcars.

### Risk Management and Hedging Activities

Our profitability is highly dependent on commodity prices, particularly for ethanol, distillers grains, corn oil, corn and natural gas. Since market price fluctuations among these commodities are not always correlated, ethanol production may be unprofitable at times. We use a variety of risk management tools and hedging strategies to monitor real-time operating price risk exposure at each of our plants to secure favorable margins, when available, or temporarily reduce production levels during periods of compressed margins. Our multiple businesses and revenue streams also help to diversify our operations and profitability.

We use forward contracts to sell a portion of our ethanol, distillers grains and corn oil production or buy some of the corn or natural gas we need to partially offset commodity price volatility. We also engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas, ethanol and other commodities. The financial impact of these activities depends on price of the commodities involved and our ability to physically receive or deliver those commodities. We do not speculate on general price movements by taking significant unhedged positions on commodities.

Hedging arrangements expose us to risk of financial loss when the counterparty defaults on its contract or, in the case of exchange-traded contracts, when the expected differential between the price of the underlying commodity and physical commodity changes. Hedging activities can result in losses when a position is purchased in a declining market or sold in a rising market. Hedging losses may be offset by a decreased cash price for corn and natural gas and an increased cash price for ethanol, distillers grains and corn oil. We vary the amount of hedging or other risk mitigation strategies we undertake and sometimes choose not to engage in hedging transactions at all.

### Competitive Strengths

We are focused on managing commodity price risks, improving operational efficiencies and optimizing market opportunities to create an efficient platform with diversified income streams. Our competitive strengths include:

**Disciplined Risk Management.** Risk management is our core competency and we use a variety of risk management tools and hedging strategies to maintain a disciplined approach. Our internally developed operating margin management system allows us to monitor real-time commodity price risk exposure at each of our plants and focus on locking in favorable margins or temporarily reducing production levels during periods of compressed margins.

**Acquisition and Integration Capabilities.** We have the ability to acquire assets that create synergies and enhance our ability to mitigate risks. Our balance sheet allows us to be opportunistic in that process. Since inception, we built or acquired 14 ethanol plants and installed, or are in the process of installing at the Hopewell plant, corn oil extraction technology at each of our plants to generate incremental returns. In addition, we purchased or built a grain handling and storage business, a cattle feedlot operation, and terminal and distribution facilities. Successful integration of these operations has enhanced our overall returns.

**Operational Excellence.** Our plants are staffed by experienced industry personnel who share operational knowledge. We focus on making incremental operational improvements to enhance performance using real-time production data and control systems to monitor our plants and optimize performance. Our operational expertise provides us a cost advantage over most of our competitors and helps us improve the operating margins of acquired facilities.

**Vertical Integration.** Our vertically integrated platform reduces commodity and operational risk and increases pricing visibility and influence in key markets. Combined, our ethanol production, agribusiness, marketing and distribution, and partnership segments provide efficiencies which extend across the ethanol value chain.

**Proven Management Team.** Our senior management team averages more than 25 years of commodity risk management and related industry experience. We have specific expertise across all of our businesses, including plant operations and management, commodity markets and risk management, and ethanol marketing and distribution. Our management team's level of operational and financial expertise is essential to successfully executing our business strategies.

## Business Strategy

We believe ethanol could become an increasingly larger portion of the global fuel supply due to factors described below driven by volatile oil prices, heightened environmental concerns, energy independence goals and national security concerns:

- **Emissions Reduction.** In the 1990's, federal law required the use of oxygenates in reformulated gasoline to reduce vehicle emissions in cities with unhealthy levels of air pollution, on a seasonal or year-round basis. Oxygenated gasoline is used to meet separate federal and state air emission standards. At the time, these oxygenates included ethanol and MTBE. However, the U.S. refining industry has since abandoned the use of MTBE, making ethanol the primary clean air oxygenate used.
- **Octane Enhancer.** Ethanol has an octane value of 113 and is the primary additive used by refiners to increase octane levels, producing regular grade gasoline from lower octane blending stocks and upgrading regular gasoline to premium grades, to improve engine performance. According to the EIA, refiners are producing more conventional blendstocks for oxygenate blending, or CBOB, which is an 84 octane sub-grade gasoline which requires ethanol or another octane source to meet minimum octane requirements for the U.S. gasoline market. CBOB represented approximately 80% of total conventional gasoline sold in 2015.
- **Fuel Stock Extender.** Ethanol is a valuable blend component used by U.S. refiners to extend fuel supply. According to the EIA, ethanol as a component of the domestic gasoline supply grew from 1.4% in 2001 to 9.9% in 2015, replacing the need for approximately 732 million barrels of oil in 2015.
- **E15 Blending Waiver.** Through a series of decisions beginning in October 2010, the EPA granted a waiver which permitted the use of E15 in model year 2001 and newer passenger vehicles, including cars, sport utility vehicles and light pickup trucks. In June 2012, the EPA gave final approval for the sale and use of E15 and in July 2012, the nation's first retail E15 was sold. On January 5, 2016, there were 189 retail fuel stations in 23 states offering E15 to consumers.
- **Mandated Use of Renewable Fuels.** The growth in domestic ethanol use has been supported by legislative requirements. Under the provisions of the EISA, the RFS II was established increasing the required volume of renewable fuel to be blended with motor gasoline. In November 2015, the EPA announced final volume requirements for conventional ethanol of 13.61 billion gallons, 14.05 billion gallons and 14.50 billion gallons for 2014, 2015 and 2016, respectively.
- **Net Ethanol Exports.** Prior to 2010, the United States had a long history as a net importer of ethanol. In 2010, according to the USDA, the United States became the largest exporter of ethanol to world markets and lowest-cost producer, surpassing Brazil. According to the EIA, U.S. ethanol exports, net of imports, were approximately 730 million gallons in 2015 and 750 million gallons in 2014.

In light of our industry's environment, we intend to further develop and strengthen our business by pursuing the following growth strategies:

**Grow Organically.** We seek expansion projects that leverage our assets' location and potential production capacity by maximizing operational capabilities or increasing grain storage capacity. We believe owning grain storage at our near our plants allows us to develop relationships with local producers and originate corn more effectively at a lower average cost. Since most of our plants are located in close proximity of our competitors in the Midwest, we believe this provides a competitive advantage.

**Acquire Strategic Assets.** We seek acquisitions that allow us to apply our specialized knowledge, existing processes and expandable infrastructure as a competitive advantage in select agricultural and energy markets. We maintain a disciplined evaluation process in pursuit of strategic assets, taking into consideration rigorous design, engineering, financial and geographic criteria, to ensure the assets will generate favorable returns. For our recently formed subsidiary, Green Plains Partners, our strategy is to acquire additional assets that can be offered to the partnership to generate incremental distributable cash flow.

Conduct Safe, Reliable, Efficient Operations and Improve Operational Efficiency. We are committed to maintaining safe, reliable and environmentally compliant operations and employ an extensive production control system at each plant to continuously monitor performance. We use the performance data to develop strategies that can be applied across our platform. In addition, we research operational processes that may enhance our efficiency by increasing yields, lowering processing cost per gallon and growing production volumes.

### Recent Developments

We are disciplined in evaluating potential acquisitions for growth. Ethanol plants must meet rigorous design, engineering, valuation and geographic criteria to be considered. The following is a summary of our significant developments during 2015. Additional information about these items can be found elsewhere in this report or in previous reports filed with the SEC.

On October 23, 2015, we acquired an ethanol production facility located in Hopewell, Virginia for approximately \$18.6 million, including liabilities assumed of approximately \$0.4 million. The dry mill ethanol plant's production capacity is approximately 60 mmgy. We resumed ethanol production at the plant on February 8, 2016 and corn oil processing is expected to be operational during the second quarter of 2016.

On November 12, 2015, we acquired Hereford Renewable Energy, LLC located in Hereford, Texas, for approximately \$78.8 million for the ethanol plant assets, as well as working capital acquired or assumed of approximately \$19.4 million. The purchase includes an ethanol plant with production capacity of approximately 100 mmgy, a corn oil extraction system, working capital and other related assets.

As part of our Phase I ethanol production capacity expansion program, we added 35 mmgy of production capacity at a cost of \$29.6 million through December 31, 2015. We anticipate adding up to 50 mmgy of production capacity over the next 12 months. The total cost of the Phase I expansion is estimated to be approximately \$49.0 million.

On November 4, 2015, the partnership announced plans to form a joint venture, as a 50% partner, to build an ethanol unit train terminal in Maumelle, Arkansas. The terminal will be capable of unloading 110-car unit trains in less than 24 hours and initially include storage for approximately 4.2 mmg of ethanol. The project, which will allow ethanol to be delivered more efficiently into Little Rock and surrounding markets, is expected to cost approximately \$12 million and be completed during the fourth quarter of 2016.

Effective January 1, 2016, the partnership acquired the storage and transportation assets of the Hereford, Texas and Hopewell, Virginia ethanol production facilities from us for an initial consideration of \$62.5 million. The partnership used its revolving credit facility and cash on hand to fund the purchase of the assets. The acquired assets include three ethanol storage tanks that support the plants' combined expected production capacity of approximately 160 mmgy and 224 leased railcars with capacity of approximately 6.7 mmg. The partnership amended the storage and throughput agreement, increasing the minimum volume commitment to 246.5 mmg per calendar quarter. The partnership also amended the rail transportation services agreement, increasing the minimum railcar volumetric capacity commitment to 76.3 mmg.

#### Initial Public Offering of Subsidiary

We formed Green Plains Partners LP, a master limited partnership, to provide fuel storage and transportation services. We expect the partnership to be our primary downstream logistics provider since its assets are the principal method of storing and delivering the ethanol we produce.

On July 1, 2015, the partnership completed its IPO. A total of 11,500,000 common units, representing limited partner interests, were sold to the public for \$15.00 per common unit. The partnership received net proceeds of \$157.5 million after deducting underwriting discounts, structuring fees and offering expenses, which it used to make a distribution of \$155.3 million to us and pay \$0.9 million in origination fees under its new \$100.0 million revolving credit facility. The partnership retained the remaining \$1.3 million for general purposes.

We now own a 62.5% limited partner interest consisting of 4,389,642 common units and 15,889,642 subordinated units, a 2.0% general partner interest in the partnership and all of the partnership's incentive distribution rights. The public owns the remaining 35.5% limited partner interest. The partnership is consolidated in our financial statements.



During the subordination period, which is described in the partnership agreement, holders of the subordinated units are not entitled to receive distributions until the common units have received the minimum quarterly distribution plus any arrearages of the minimum quarterly distribution from prior quarters. If the partnership does not pay distributions on the subordinated units, the subordinated units will not accrue arrearages for those unpaid distributions. Each subordinated unit will convert into one common unit at the end of the subordination period.

In conjunction with the IPO, we contributed our downstream ethanol transportation and storage assets to the partnership, including:

- 27 ethanol storage facilities located at or near our 12 ethanol production plants,
- 8 fuel terminal facilities located near major rail lines, and approximately
- 2,210 leased rail cars and other transportation assets.

A substantial portion of the partnership's revenue is derived from long-term, fee-based commercial agreements with our subsidiary, Green Plains Trade, including:

- 10-year storage and throughput agreement,
  - 6-year rail transportation services agreement, and
- 1-year trucking transportation agreement.

The partnership also assumed various terminal services agreements, including a 2.5-year agreement for the Birmingham, Alabama unit train terminal. The partnership's storage and throughput agreement and some of the terminal services agreements, including the Birmingham terminal services agreement, are supported by minimum volume commitments. The rail transportation services agreement is supported by minimum take-or-pay capacity commitments.

We also have agreements with the partnership that establish fees for general and administrative services, and operational and maintenance services. These transactions are eliminated when we consolidate our financial results.

## Operating Segments

Ethanol Production Segment

**Industry Overview.** Ethanol, also known as ethyl alcohol or grain alcohol, is a colorless liquid produced by fermenting carbohydrates found in a number of different types of grains, such as corn, wheat and sorghum, and other cellulosic matter found in plants. Most of the ethanol produced in the United States is made from corn because it contains large quantities of carbohydrates that convert into glucose more easily than most other kinds of biomass, can be handled efficiently and is in greater supply than other grains. One bushel, or 56 pounds, of corn, produces approximately 2.8 gallons of ethanol, 16.5 pounds of distillers grains and 0.6 pounds of corn oil. Outside of the United States, sugarcane is the primary feedstock used in ethanol production.

Ethanol is a significant component of the biofuels industry, which includes all transportation fuels derived from renewable biological materials. Biofuels are an excellent oxygenate and source of octanes. When added to petroleum-based transportation fuels, oxygenates reduce vehicle emissions. Ethanol is the most economical oxygenate and source of octanes available on the market and its production costs are competitive with gasoline.

The global ethanol industry has grown significantly over the past decade due to ethanol's environmental and economic benefits. Approximately 30 countries including the EU, which is regulated by a single policy with specific national targets for each country, either mandate or offer incentives for blending ethanol and biodiesel with motor fuels. These policies are motivated by the desire to reduce pollution, greenhouse gas emissions and dependency on foreign oil. Annual reported ethanol production worldwide has increased from approximately 5.0 billion gallons in 2001 to 24.6 billion gallons in 2014, and from 1.8 billion gallons in 2001 to 14.8 billion gallons in 2015 in the United States, according to the EIA. The United States and Brazil are the two largest producers and exporters of ethanol in the world. In 2015, ethanol comprised approximately 10% of the U.S. gasoline market.

Ethanol Plants. We operate 14 dry mill ethanol production plants, located in eight states, that produce ethanol, distillers grains and corn oil:

Plant	Initial Operation or Acquisition Date	Technology	Plant Production Capacity (mmgy)
Atkinson, Nebraska	June 2013	Delta-T	53
Bluffton, Indiana (1)	Sept. 2008	ICM	120
Central City, Nebraska	July 2009	ICM	106
Fairmont, Minnesota	Nov. 2013	Delta-T	119
Hereford, Texas	Nov. 2015	ICM/Lurgi	100
Hopewell, Virginia (2)	Oct. 2015	Katzen	60
Lakota, Iowa	Oct. 2010	ICM/Lurgi	112
Obion, Tennessee (1)	Nov. 2008	ICM	120
Ord, Nebraska	July 2009	ICM	55
Otter Tail, Minnesota	Mar. 2011	Delta-T	60
Riga, Michigan	Oct. 2010	Delta-T	60
Shenandoah, Iowa (1)	Aug. 2007	ICM	69
Superior, Iowa (1)	July 2008	Delta-T	60
Wood River, Nebraska	Nov. 2013	Delta-T	121
Total			1,215

(1) We constructed these four plants; all other ethanol plants were acquired.

(2) The Hopewell plant resumed ethanol production on February 8, 2016.

The majority of our plants are equipped with industry-leading ICM or Delta-T ethanol processing technology. Our years of experience building, acquiring and operating these technologies provides us with a deep understanding of how to effectively and efficiently manage both systems for maximum performance. All of our plants are adjacent to major rail lines.

Corn Feedstock and Ethanol Production. Our plants use corn as feedstock in a dry mill ethanol production process. Each of our plants requires approximately 20 million to 40 million bushels of corn annually, depending on its production capacity. The price and availability of corn are subject to significant fluctuations driven by a number of factors that affect commodity prices in general, including crop conditions, weather, governmental programs, freight costs and global demand. Ethanol producers are generally unable to pass increased corn costs to customers since ethanol competes with other fuels.

Our corn supply is obtained primarily from local markets by our agribusiness segment and subsequently provided to our ethanol production segment. We use cash and forward purchase contracts with grain producers and elevators to buy corn. At ten of our ethanol plants, we maintain direct relationships with local farmers, grain elevators and

cooperatives, which serve as our primary sources of grain feedstock. Most farmers in the area where these plants are located store corn in their own storage facilities. This allows us to purchase much of the corn needed to supply our plants directly from farmers throughout the year. At four of our ethanol plants, we contract with third-party grain originators to supply the corn necessary for ethanol production. These contracts terminate between October 2016 and November 2023. Each of our plants is also situated on rail lines or has other logistical solutions to access corn supplies from other regions of the country should local supplies become insufficient.

Corn is received at the plant by truck or rail then weighed and unloaded into a receiving building. Storage bins are used to inventory grain that is passed through a scalper to remove rocks and debris prior to processing. The corn is then transported to a hammer mill where it is ground into coarse flour and conveyed into a slurry tank for enzymatic processing. Water, heat and enzymes are added to convert the complex starch molecules into simpler carbohydrates. The slurry is heated to reduce the potential of microbial contamination and pumped into a liquefaction tank where additional enzymes are added. Next, the grain slurry is pumped into fermenters, where yeast, enzymes, and nutrients are added and the batch fermentation process is started. A beer column, within the distillation system, separates the alcohol from the spent grain mash. The alcohol is dehydrated to 200-proof alcohol and either pumped into a holding tank and blended with approximately two percent denaturant as it is pumped into finished product storage tanks, or marketed as undenatured ethanol.

**Distillers Grains.** The spent grain mash is pumped from the beer column into a decanter-type centrifuge for dewatering. The water, or thin stillage, is pumped from the centrifuge into an evaporator, where it is dried into a thick syrup. The solids, or wet cake, that exit the centrifuge are conveyed to the dryer system and dried at varying temperatures to produce distillers

grains. Syrup might be reapplied to the wet cake prior to drying to provide additional nutrients. Distillers grains, the principal co-product of the ethanol production process, are used as high-protein, high-energy animal feed and marketed to the dairy, beef, swine and poultry industries.

We can produce three forms of distillers grains, depending on the number of times the solids are passed through the dryer system:

- wet distillers grains, which contain approximately 65% to 70% moisture, have a shelf life of approximately three days and is therefore sold only to dairies or feedlots within the immediate vicinity,
- modified wet distillers grains, which is dried further to approximately 50% to 55% moisture, have a shelf life of approximately three weeks and are marketed to regional dairies and feedlots, and
- dried distillers grains, which have been dried more extensively to approximately 10% to 12% moisture, have an almost indefinite shelf life and may be stored, sold and shipped to any market.

**Corn Oil.** Corn oil systems extract non-edible corn oil from the thin stillage evaporation process immediately before the production of distillers grains. Corn oil is produced by processing the syrup and evaporated thin stillage through a decanter-style, or disk-stack, centrifuge. The centrifuges separate the relatively light corn oil from the heavier components of the syrup, eliminating the need for significant retention time. We extract approximately 0.7 pounds of corn oil per bushel of corn used to produce ethanol. Industrial uses for corn oil include feedstock for biodiesel, livestock feed additives, rubber substitutes, rust preventatives, inks, textiles, soaps and insecticides. The syrup is blended into wet, modified wet or dried distillers grains.

**Utilities.** The production of ethanol requires significant amounts of natural gas, electricity and water.

**Natural Gas.** Depending on production parameters, our ethanol plants use approximately 22,000 to 33,000 BTUs of natural gas per gallon of production. We have service agreements for the natural gas we need and pay tariff fees to providers that transport the gas through pipelines to our plants.

**Electricity.** Our plants require between 0.5 and 1.2 kilowatt hours of electricity per gallon of production. Local utilities supply the necessary electricity to all of our ethanol plants.

**Water.** While some of our plants satisfy a majority of their water requirements from wells located on their respective properties, each plant also obtains drinkable water from local municipal water sources. Each facility operates a filtration system to purify the well water that is used for its operations. Local municipalities supply all of the necessary

water for our plants that do not have onsite wells. Much of the water used in an ethanol plant is recycled in the production process.

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## Agribusiness Segment

Our agribusiness segment facilities include five grain elevators in four states with combined grain storage capacity of approximately 11.6 million bushels, a cattle feedlot operation with the capacity to support 70,000 head of cattle and 2.8 million bushels of grain storage capacity, and grain storage at our ethanol plants of approximately 44.2 million bushels, detailed in the following table:

Facility Location	On-Site Grain Storage Capacity (thousands of bushels)
Grain Elevators	
Archer, Nebraska	1,246
Essex, Iowa	3,651
Hopkins, Missouri	3,007
Kismet, Kansas	1,650
St. Edward, Nebraska	2,110
Feedlot Operation	
Kismet, Kansas	2,785
Ethanol Plants	
Atkinson, Nebraska	3,716
Bluffton, Indiana	4,789
Central City, Nebraska	1,400
Fairmont, Minnesota	1,611
Hereford, Texas	4,800
Hopewell, Virginia	1,000
Lakota, Iowa	4,952
Obion, Tennessee	8,261
Ord, Nebraska	2,266
Otter Tail, Minnesota	2,504
Riga, Michigan	2,321
Shenandoah, Iowa	636
Superior, Iowa	2,477
Wood River, Nebraska	3,459
Total	58,641

We buy bulk grain, primarily corn and soybeans, from area producers, and provide grain drying and storage services to those producers. We buy cattle from producers and order buyers, the majority of which are from Kansas, Missouri, Oklahoma and Texas. The grain is used as feedstock for our ethanol plants or sold to grain processing companies and

area livestock producers. The cattle are sold to meat processors. Bulk grain and cattle commodities are traded on commodity exchanges. Inventory values are affected by changes in these markets and spreads. To mitigate risks related to market fluctuations from purchase and sale commitments of grain and cattle, as well as grain and cattle held in inventory, we enter into exchange-traded futures and options contracts that function as economic hedges at times.

Seasonality is present within our agribusiness operations. The fall harvest period typically results in higher handling margins and stronger financial results during the fourth quarter of each year.

#### Marketing and Distribution Segment

Through Green Plains Trade, we market the ethanol we produce and a third-party produces to local, regional, national and international customers. We also purchase ethanol from independent producers for pricing arbitrage. To achieve the best price for the ethanol we market, we sell to various markets under sales agreements with integrated energy companies; retailers, traders and resellers in the United States and buyers for export to Brazil, Canada, Europe and other international markets. Under these agreements, ethanol is priced under fixed and indexed pricing arrangements.

We market wet, modified wet and dried distillers grains to local markets and dried distillers grains to local, national and international markets. The bulk of our demand is for deliveries to geographic regions that do not have significant local corn or distillers grains production.



Our markets can be further segmented by geographic region and livestock industry. Most of our modified wet distillers grains are sold to midwestern feedlot markets. Our dried distillers grains are shipped to feedlots and poultry markets, as well as Texas and West Coast rail markets. A substantial amount of dried distillers grains are shipped by barge and rail to regional and national markets. Some of our distillers grains are shipped by truck to dairy, beef, and poultry operations in the eastern United States. We also ship by railcar to Eastern and Southeastern feed mills, poultry and dairy operations, and domestic trade companies. Dried distillers grains are also sold to exporters for shipment to international markets. Our largest export markets in 2015 included Vietnam, Thailand, Korea and Mexico. Access to diversified markets allows us to sell product to customers offering the highest net price.

Our corn oil is sold primarily to biodiesel manufactures and, to a lesser extent, feedlot and poultry markets. We transport our corn oil by truck to locations in a close proximity to our ethanol plants primarily in the southeastern and midwestern regions of the United States. We also transport corn oil by rail to national markets as well as to exporters for shipment to international markets.

Our railcar fleet for the marketing and distribution segment consists of approximately 900 leased hopper cars for the transportation of distillers grains and approximately 100 leased tank cars for the transportation of corn oil. The initial terms of the lease contracts are for periods up to ten years.

#### Partnership Segment

Our partnership segment provides fuel storage and transportation services through its (i) 30 ethanol storage facilities located at or near our 14 ethanol production plants, (ii) eight fuel terminal facilities located near major rail lines, and (iii) a leased railcar fleet and other transportation assets.

**Transportation and Delivery.** Most ethanol plants are situated near major highways or rail lines to ensure efficient movement. We distribute ethanol by moving product from our ethanol plants to bulk terminals by railcar or truck. We also manage the logistics and transportation requirements of our customers to improve our fleet's efficiency and reduce operating costs.

Deliveries within 150 miles of the partnership's fuel terminal facilities and our plants are generally transported by truck. Deliveries to distant markets are shipped using major U.S. rail carriers that can switch cars to other major

railroads, allowing our plants to ship product throughout the United States.

To meet the challenge of marketing ethanol and distillers grains to diverse market segments, several of our plants are capable of handling more than 150 railcars. Some of our locations have large loop tracks with unit train loading capabilities for both ethanol and dried distillers grains and spurs to connect the loop to the mainline or allow the movement and storage of railcars on site.

The partnership's railcar fleet consists of approximately 2,500 leased tank cars for the transportation of ethanol. The initial terms of the lease contracts are for periods up to ten years.

We seek to optimize the partnership's railcar assets and will transport products other than ethanol and distillers grains depending on market opportunities and have used a portion of our railcar fleet to transport crude oil for third parties and to lease railcars to other users.

**Terminal and Distribution Services.** Ethanol is transported from the partnership's terminals to third-party terminal racks where it is blended with gasoline and transferred to the loading rack for delivery by truck to retail gas stations. The partnership owns and operates fuel holding tanks and terminals, and provide terminal services and logistics solutions to markets that do not have efficient access to renewable fuels. The partnership operates fuel terminals at one owned and seven leased locations in seven states with a combined storage capacity of approximately 7.4 mmg and throughput capacity of approximately 822 mmgy. We also have 30 ethanol storage facilities located at or near our 14 ethanol production plants with a combined storage capacity of approximately 31.8 million gallons and throughput capacity of approximately 1.7 bgy.

Facility Location	Storage Capacity (thousands of gallons)
Fuel Terminals	
Birmingham, Alabama - Unit Train Terminal	6,542
Birmingham, Alabama - Other	120
Bossier City, Louisiana	180
Collins, Mississippi	180
Little Rock, Arkansas	30
Louisville, Kentucky	60
Nashville, Tennessee	160
Oklahoma City, Oklahoma	150
Ethanol Plants	
Atkinson, Nebraska	2,074
Bluffton, Indiana	3,000
Central City, Nebraska	2,250
Fairmont, Minnesota	3,124
Hereford, Texas	4,406
Hopewell, Virginia	761
Lakota, Iowa	2,500
Obion, Tennessee	3,000
Ord, Nebraska	1,550
Otter Tail, Minnesota	2,000
Riga, Michigan	1,239
Shenandoah, Iowa	1,524
Superior, Iowa	1,238
Wood River, Nebraska	3,124
Total	39,212

## Our Competition

### Domestic Ethanol Competitors

We compete with other domestic ethanol producers. According to Ethanol Producer magazine, there were 216 ethanol-producing plants in the United States capable of producing 15.7 billion gallons of ethanol annually as of December 31, 2015. The industry does not typically operate at 100% of capacity. Historical annual production rates to total plant capacity averages between the high 80 percent to low 90 percent range. The three largest ethanol producers by capacity in North America are: Archer Daniels Midland Company, POET and Valero Energy Corporation. We are

the fourth largest producer by capacity, followed by Flint Hills Resources. The top five producers' annual production capacity ranges between approximately 800 mmgy and 1,800 mmgy.

In addition, our competitors include plants owned by farmers, oil refiners and retail fuel operators. These competitors may continue to operate their plants even when market conditions are not favorable due to the benefits realized from their other operations.

Demand for corn from ethanol plants and other corn consumers exists in all areas and regions in which we operate. At December 31, 2015, Iowa, Indiana, Michigan, Minnesota, Nebraska and Tennessee had a total of 111 operational ethanol plants, according to Ethanol Producer magazine. Iowa and Nebraska have the largest concentration of operational plants, including 42 primarily in the northern and central Iowa and 26 in Nebraska.

#### Foreign Ethanol Competitors

We also compete globally with production from other countries. Brazil is the second largest ethanol producer in the world after the United States. Brazil's ethanol production is made from sugarcane and, depending on feedstock prices, may be less expensive to produce than ethanol made from corn. Under RFS II, certain parties are obligated to meet an advanced biofuel standard. In recent years, sugarcane ethanol imported from Brazil has been one of the most economical means for

obligated parties to meet this standard. Any significant additional ethanol production capacity could create excess supply in world markets, resulting in lower ethanol prices throughout the world, including the United States.

#### Other Competition

Alternative fuels, gasoline oxygenates and ethanol production methods are continually under development. Ethanol production technologies also continue to evolve. We expect changes to occur primarily in the area of ethanol made from other sources of biomass, such as switch grass or fast-growing poplar trees. Since all of our plants are designed as single-feedstock facilities, adapting our plants for a different feedstock or process system would require additional capital investments and retooling.

#### Regulatory Matters

##### Government Ethanol Programs and Policies

Demand for cleaner, more sustainable transportation fuel is growing worldwide. Growth in ethanol demand has been driven by policies, adopted by more than 30 countries including the EU, which is regulated by a single policy with specific national targets for each country, calling for increased ethanol in motor fuel. Ethanol has become a crucial component of the global fuel supply as an economical oxygenate and source of octanes.

In an effort to reduce the United States' dependence on foreign oil, federal and state governments enacted numerous policies, incentives and subsidies to encourage use of domestically produced alternative fuels. While the ethanol industry has benefited significantly as a result, the need for economic incentives may diminish as ethanol continues to gain acceptance as a primary fuel and fuel extender.

In the United States, the federal government mandates the use of renewable fuels under RFS II. The EPA assigns individual refiners, blenders and importers the volume of renewable fuels they are obligated to use based on their percentage of total fuel sales. Obligated parties use RINs to show compliance with RFS-mandated volumes. RINs are attached to renewable fuels by producers and detached when the renewable fuel is blended with transportation fuel or traded in the open market. The market price of detached RINs affects the price of ethanol in certain markets and influences the purchasing decisions by obligated parties.

RFS II has been a driving factor in the growth of ethanol usage in the United States. RFS II increased the required volume of renewable fuel to be blended with transportation fuel, mandating a minimum of 12.0 billion gallons of corn-based renewable fuel in 2010 and increasing that requirement by 600 million gallons each year to 15.0 billion gallons in 2015.

The EPA also has the authority to waive the mandates in whole or in part if one of two conditions are met: (1) there is inadequate domestic renewable fuel supply, or (2) implementation of the requirement severely harms the economy or environment of a state, region or the United States. During the third quarter of 2012, several waiver requests were filed with the EPA due to drought conditions, which were subsequently denied.

Several amendments to the Energy Policy Modernization Act were introduced in the U.S. Senate that were removed from consideration in early February 2016, including amendments to repeal RFS II, eliminate the corn ethanol mandate in RFS II and prohibit the U.S. Secretary of Agriculture from using Commodity Credit Corporation or other funds to construct blender pumps. It is not known if a vote on the numerous amendments to the EPMA or senate passage of the EPMA will take place.

In November 2013, the EPA released its Notice of Proposed Rulemaking for the 2014 Renewable Fuel Standard, seeking comment on a range of total renewable fuel volumes and proposing a level within the range of 15.2 billion gallons, including approximately 13.0 billion gallons of corn-derived renewable fuel. The proposal included a variety of approaches for setting the 2014 standard and a number of production and consumption ranges of biofuels covered by RFS II to address two constraints of RFS II: (1) the volume limitations of ethanol given the practical constraints of vehicles that can use higher ethanol blends, and (2) the industry's ability to produce sufficient volumes of qualifying renewable fuel. In November 2014, the EPA rescinded its 2013 proposal. Furthermore, the EPA did not finalize the 2014 standard under the RFS program before the end of the year.

On June 10, 2015, the EPA proposed volume targets for conventional ethanol of 13.25 billion gallons, 13.40 billion gallons and 14.00 billion gallons for 2014, 2015 and 2016, respectively. On November 30, 2015, the EPA announced final

volume requirements for conventional ethanol that were higher than levels proposed in June of 13.61 billion gallons, 14.05 billion gallons and 14.50 billion gallons for 2014, 2015 and 2016, respectively.

On January 6, 2015, H.R. 21 was introduced to provide a comprehensive assessment of the scientific and technical research on the implications of mid-level ethanol blends, seeking to eliminate the waiver granted by the EPA allowing E15 in 2001 and newer cars and light trucks. On January 21, 2015, H.R. 434 was introduced, seeking to modify the Clean Air Act by limiting or removing the authority of the EPA to grant waivers for higher blends of ethanol in the U.S. gasoline supply and repeal existing waivers that the EPA previously granted. On February 4, 2015, H.R.704 was introduced to limit ethanol blends greater than 10% in the U.S. fuel supply and repeal the renewable fuel standard.

CAFE was first enacted by Congress in 1975 to reduce energy consumption by increasing the fuel economy of cars and light trucks. CAFE has helped the ethanol industry by encouraging the use of E85. CAFE provides a 54% efficiency bonus to flexible-fuel vehicles running on E85. According to the U.S. Department of Energy, there are 17.4 million flexible fuel vehicles on U.S. roads today. E85 is sold at more than 3,000 fuel stations in 47 states.

In April 2013, the Master Limited Partnership Parity Act was introduced in the U.S. House of Representatives as H.R. 1696 to extend the publicly traded partnership ownership structure to renewable energy projects, including ethanol production. The legislation was proposed to provide a more level financing system and tax burden for renewable energy equal to fossil energy projects. H.R. 1696 did not advance out of committee during the 113th Congress and its co-sponsors have not re-introduced the bill.

In addition to these federal standards, many states have taken steps to encourage ethanol consumption including tax credits, mandated blend rates and subsidies.

In July 2010, President Obama signed the Reform Act to improve transparency and accountability in the derivative markets. The Reform Act increases the regulatory authority of the CFTC regarding over-the-counter derivatives; however, there is uncertainty remaining on several issues related to market clearing, market participants and capital requirements. Although only some of the issues have been addressed, we do not anticipate any material impact to our risk management strategy.

In January 2012, the Domestic Alternative Fuels Act of 2012 was introduced in the U.S. House of Representatives and re-introduced in March 2013 as H.R. 1214 to protect consumers who unintentionally use an alternative fuel that is not approved for use by the automobile manufacturer. Some automobile manufacturers have stated that any damage

resulting from misfueling is not covered under warranty. In June 2013, the American Fuel Protection Act of 2013, or H.R. 2267, was introduced in the U.S. House of Representatives to make the United States exclusively liable for damages resulting from, or aggravated by, the inclusion of ethanol in transportation fuel. Both bills failed to advance out of congressional committee and were not enacted into law.

#### Environmental and Other Regulation

Our ethanol production and agribusiness activities are subject to environmental and other regulations. We obtain environmental permits to construct and operate our ethanol plants.

Ethanol production involves the emission of various airborne pollutants, including particulate, carbon dioxide, oxides of nitrogen, hazardous air pollutants and volatile organic compounds. In 2007, the U.S. Supreme Court classified carbon dioxide as an air pollutant under the Clean Air Act in a case seeking to require the EPA to regulate carbon dioxide in vehicle emissions, which the EPA later addressed in RFS II.

While our plants are grandfathered at their current authorized capacity under the RFS II mandate, expansion above these levels will require a 20% reduction in greenhouse gas emissions from a 2005 baseline measurement. This may require us to obtain additional permits, achieve the EPA's efficient producer status under the pathway petition program, install advanced technology or reduce drying distillers grains.

CARB adopted LCFS requiring a 10% reduction in average carbon intensity of gasoline and diesel transportation fuels from 2010 to 2020. After a series of rulings that temporarily prevented CARB from enforcing these regulations, the State of California Office of Administrative Law approved the LCFS in November 2012, and revised LCFS regulations took effect in January 2013.



The U.S. ethanol industry relies heavily on tank cars to deliver its product to market. As of January 1, 2016, the company leases approximately 2,600 tank cars, including 2,500 leased by our partnership to transport ethanol. In July 2014, the DOT proposed new regulations to improve the transportation of flammable materials by rail, which it finalized on May 1, 2015. The Enhanced Tank Car Standards and Operational Controls for High-Hazard Flammable Trains calls for an enhanced tank car standard known as the DOT specification 117 and establishes a schedule to retrofit or replace older tank cars that carry crude oil and ethanol. The rule also establishes braking standards intended to reduce the severity of accidents and new operational protocols.

Parts of our business are regulated by environmental laws and regulations governing the labeling, use, storage, discharge and disposal of hazardous materials. Our agribusiness operations are subject to government regulation and regulation by private sector associations. Our production levels are indirectly affected by federal government programs, which include the USDA, acreage control and price support programs. In addition, the grain we sell must conform to official grade standards imposed by the USDA. Other examples of government policies that may impact our business include tariffs, duties, subsidies, import and export restrictions and outright embargos.

In September 2015, in response to FSMA, the FDA issued rules for Current Good Manufacturing Practice, Hazard Analysis and Risk-Based Preventative Controls for food for animals. The rules require FDA-registered food facilities to address safety concerns for sourcing, manufacturing and shipping food products through food safety programs and plans, which includes conducting hazard analyses, developing risk-based preventative controls and monitoring, and addressing intentional adulteration, recalls, sanitary transportation and supplier verification. While we are still reviewing the regulation, we may need additional resources to comply with the new requirements since our distillers grains are used as feed for animals. Our cattle feedlot operation is included under the FDA's definition of "farm" and is exempt from the FSMA requirements.

We also employ maintenance and operations personnel at each of our ethanol plants. In addition to the attention we place on the health and safety of our employees, the operations of our facilities are regulated by the Occupational Safety and Health Administration.

#### BioProcess Algae Joint Venture

We are a majority owner of the BioProcess Algae joint venture that was formed in 2008. The joint venture is focused on developing technology to grow and harvest algae in commercially viable quantities, using the carbon dioxide that is created as part of the ethanol production process. Through multiple stages of expansion, BioProcess Algae constructed a five-acre algae farm next to our Shenandoah, Iowa ethanol plant and has operated its Grower Harvesters™ bioreactors since 2011. The joint venture continues to take critical steps towards commercialization, including

verifying growth rates, energy balances, capital requirements and operating expenses of the technology. In 2015, we narrowed our focus on human nutrition, concentrating on protein value and EPA omega-3 fatty acids, and acquired a second production location, located in Texas, to further support our research and development efforts.

## Employees

On December 31, 2015, we had approximately 995 full-time, part-time, temporary and seasonal employees, including 163 employees at our corporate office in Omaha, Nebraska.

## Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports are available on our website at [www.gpreinc.com](http://www.gpreinc.com) shortly after we file or furnish the information with the SEC. You can also find the charters of our audit, compensation and nominating committees, as well as our code of ethics in the corporate governance section of our website. The information found on our website is not part of this or any other report we file with or furnish to the SEC. For more information on our partnership, please visit [www.greenplainspartners.com](http://www.greenplainspartners.com). Alternatively, investors may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, NE, Washington, DC 20549 or visit the SEC website at [www.sec.gov](http://www.sec.gov) to access our reports, proxy and information statements filed with the SEC.

Item 1A. Risk Factors.

We operate in an industry that has numerous risks, many of which are beyond our control or are driven by factors that cannot always be predicted. Investors should carefully consider all of the risk factors in conjunction with the other information included in this report as our financial results and condition or market value could be adversely affected if any of these risks were to occur.

Risks Related to our Business and Industry

Our profitability is dependent on managing the spread between the price of corn, natural gas, ethanol, distillers grains and corn oil.

Our ethanol production results are highly sensitive to commodity prices, including the spread between the corn and natural gas we purchase, and the ethanol, distillers grains and corn oil we sell. Price and supply are subject to market forces, such as weather, domestic and global demand, shortages, export prices, crude oil prices, currency valuations and government policies in the United States and around the world, over which we have no control. Price volatility of these commodities may cause our operating results to fluctuate substantially. Increases in corn or natural gas prices or decreases in ethanol, distillers grains and corn oil prices may make it unprofitable to operate our plants. No assurance can be given that we will purchase corn and natural gas or sell ethanol, distillers grains and corn oil at or near current prices. Consequently, our results of operations and financial position may be adversely affected by increases in corn or natural gas prices or decreases in ethanol, distillers grains and corn oil prices.

We continuously monitor the profitability of our ethanol plants using a variety of risk management tools and hedging strategies, when appropriate. In recent years, the spread between ethanol and corn prices has fluctuated widely and narrowed significantly. Fluctuations are likely to continue. A sustained narrow spread or further reduction in the spread between ethanol and corn prices as a result of increased corn prices or decreased ethanol prices, would adversely affect our results of operations and financial position. Should our combined revenue from ethanol, distillers grains and corn oil fall below our cost of production, we could decide to slow or suspend production at some or all of our plants.

The commodities we buy and sell are subject to price volatility and uncertainty.

**Corn.** We are generally unable to pass increased corn costs to our customers since ethanol competes with other fuels. At certain corn prices, ethanol may be uneconomical to produce. Ethanol plants, livestock industries and other corn-consuming enterprises put significant price pressure on local corn markets. In addition, local corn supplies and prices could be adversely affected by prices for alternative crops, increasing input costs, changes in government policies, shifts in global markets or damaging growing conditions, such as plant disease or adverse weather, including drought.

**Natural Gas.** The price and availability of natural gas are subject to volatile market conditions. These market conditions are often affected by factors beyond our control, such as weather, overall economic conditions and government regulations. Significant disruptions in natural gas supply could impair our ability to produce ethanol. Furthermore, increases in natural gas price or changes in our cost relative to our competitors may adversely affect our results of operations and financial position.

**Ethanol.** Our revenues are dependent on market prices for ethanol which can be volatile as a result of a number of factors, including: the price and availability of competing fuels; the overall supply and demand for ethanol and corn; the price of gasoline, crude oil and corn; and government policies. The low margin environment for 2015 was impacted by the energy market which saw historic low crude oil prices as world supply reached record levels.

Ethanol is marketed as a fuel additive that reduces vehicle emissions, an economical source of octanes and, to a lesser extent, a gasoline substitute. Consequently, gasoline supply and demand affect the price of ethanol. Should gasoline prices or demand decrease significantly, our results of operations could be materially harmed.

Ethanol imports also affect domestic supply and demand. Imported ethanol is not subject to an import tariff and, under RFS II, sugarcane ethanol from Brazil is one of the most economical means for obligated parties to meet the advanced biofuel standard.

**Distillers Grains.** Increased U.S. dry mill ethanol production has resulted in increased distillers grains production. Should this trend continue, distillers grains prices could fall unless demand increases or other market sources are found. The price of distillers grains has historically been correlated with the price of corn. Occasionally, the price of distillers grains will

lag behind fluctuations in corn or other feedstock prices, lowering our cost recovery percentage.

Distillers grains compete with other protein-based animal feed products. Downward pressure on commodity prices, such as soybeans, will generally cause the price of competing animal feed products to decline, resulting in downward pressure on the price of distillers grains.

Corn Oil. Industrial corn oil is generally marketed as a biodiesel feedstock; therefore, the price of corn oil is affected by demand for biodiesel. In general, corn oil prices follow the prices of heating oil and soybean oil. Decreases in the price of corn oil could have an unfavorable impact on our business.

Our risk management strategies could be ineffective and expose us to decreased liquidity.

As market conditions warrant, we use forward contracts to sell some of our ethanol, distillers grains and corn oil production or buy some of the corn or natural gas we need to partially offset commodity price volatility. We also engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas and ethanol. The financial impact of these activities depends on the price of the commodities involved and our ability to physically receive or deliver the commodities.

Hedging arrangements expose us to risk of financial loss when the counterparty defaults on its contract or, in the case of exchange-traded contracts, when the expected differential between the price of the underlying and physical commodity changes. Hedging activities can result in losses when a position is purchased in a declining market or sold in a rising market. Hedging losses may be offset by a decreased cash price for corn and natural gas and an increased cash price for ethanol, distillers grains and corn oil. We vary the amount of hedging and other risk mitigation strategies we undertake and sometimes choose not to engage in hedging transactions at all. We cannot provide assurance that our risk management strategies effectively offset commodity price volatility. If we fail to offset such volatility, our results of operations and financial position may be adversely affected.

The use of derivative financial instruments frequently involves cash deposits with brokers, or margin calls. Sudden changes in commodity prices may require additional cash deposits immediately. Depending on our open derivative positions, we may need additional liquidity with little advance notice to cover margin calls. While we continuously monitor our exposure to margin calls, we cannot guarantee we will be able to maintain adequate liquidity to cover margin calls in the future.

Government mandates affecting ethanol usage could change and impact the ethanol market.

Under the provisions of the EISA, the EPA established a mandate setting the minimum volume of ethanol that must be blended with gasoline under the RFS II, which affects the domestic market for ethanol. The EPA has the authority to waive the requirements, in whole or in part, if there is inadequate domestic renewable fuel supply or the requirement severely harms the economy or the environment.

Our operations could be adversely impacted by legislation that reduces the RFS II mandate. Such legislation has been introduced in Congress, including the Renewable Fuel Standard Elimination Act, RFS Reform Bill and Domestic Alternatives Fuels Act; however, these bills failed to make it out of congressional committee and were not enacted into law. Similarly, should federal mandates regarding oxygenated gasoline be repealed, the market for domestic ethanol could diminish.

Future demand will be influenced by economic incentives to blend based on the relative value of gasoline versus ethanol, taking into consideration the octane value of ethanol, environmental requirements and the RFS II mandate. A significant increase in supply beyond the RFS II mandate could have an adverse impact on ethanol prices. Moreover, changes to RFS II which significantly affect the market price of RINs could negatively impact the price of ethanol or cause imported sugarcane ethanol to become more economical than domestic ethanol.

Flexible-fuel vehicles, which are designed to run on a mixture of fuels such as E85, receive preferential treatment to meet corporate average fuel economy standards. Absent CAFE preferences, auto manufacturers may not be willing to build flexible-fuel vehicles, reducing the growth of E85 markets and resulting in lower ethanol prices.

To the extent federal or state laws or regulations are modified, the demand for ethanol may be reduced, which could negatively and materially affect our ability to operate profitably.

Future demand for ethanol is uncertain and changes in public perception, consumer acceptance and overall consumer demand for transportation fuel could affect demand.

Ethanol production has not been without controversy. While many trade groups, academics and government agencies support ethanol as a fuel additive that promotes a cleaner environment, others criticize the ethanol industry claiming production consumes considerably more energy, emits more greenhouse gases than other biofuels and depletes water resources. Some studies suggest ethanol produced from corn is less efficient than ethanol produced from switch grass or wheat grain. Others claim corn-based ethanol negatively impacts consumers by causing the prices of dairy, meat and other food derived from corn-consuming livestock to increase. Ethanol critics also contend the industry redirects corn supplies from international food markets to domestic fuel markets.

If negative views of corn-based ethanol production persist and gain acceptance, support for existing measures promoting domestic production and its use could decline and lead to reduction or repeal of federal mandates, which could adversely affect ethanol demand. These views could also have a negative impact on public perception and overall acceptance of ethanol as an alternative fuel.

There are limited markets for ethanol beyond the federal mandates. Consumer acceptance of E15 and E85 fuels may be necessary before ethanol can achieve significant market share growth. Discretionary and E85 blending are important secondary markets. Discretionary blending is often determined by the price of ethanol relative to gasoline. When discretionary blending is financially unattractive, the demand for ethanol may be reduced. Demand for ethanol is also affected by overall demand for transportation fuel, which is affected by cost, number of miles traveled and vehicle fuel economy. Reduced demand for ethanol may depress the value of our products, erode our margins, and reduce our ability to generate revenue or operate profitably.

Increased federal support of cellulosic ethanol could result in increased competition to corn-based ethanol producers.

Recent legislation, including the American Recovery and Reinvestment Act of 2009 and EISA, provides numerous funding opportunities to support cellulosic ethanol production. In addition, RFS II mandates an increasing level of biofuel production that is not derived from corn. Federal policies suggest a long-term political preference for cellulosic processing using feedstocks such as switch grass, silage, wood chips or other forms of biomass. Cellulosic ethanol may be viewed more favorably since the feedstock is not likely diverted from food production. In addition, cellulosic ethanol may have a smaller carbon footprint because the feedstock does not require energy-intensive fertilizers or industrial production processes. Several cellulosic ethanol plants are currently under development. As

research and development programs persist, there is risk that cellulosic ethanol could displace corn ethanol.

Any changes in federal mandates from corn-based to cellulosic-based ethanol production may reduce our profitability. Our plants are designed as single-feedstock facilities and would require significant additional investments to convert production to cellulosic ethanol. Furthermore, our plants are strategically located in high-yield, low-cost corn production areas. At present, there is limited supply of alternative feedstocks near our facilities. As a result, the adoption of cellulosic ethanol and its use as the preferred form of ethanol could have a significant adverse impact on our business.

Our ability to maintain the required regulatory permits or manage changes in environmental and safety regulations is essential to successfully operating our plants.

Our ethanol production and agribusiness segments are subject to extensive air, water and other environmental regulations. Ethanol production involves the emission of various airborne pollutants, including particulate, carbon dioxide, nitrogen oxides, hazardous air pollutants and volatile organic compounds, which requires numerous environmental permits to operate our plants. Governing state agencies could impose costly conditions or restrictions that are detrimental to our profitability and have a material adverse effect on our operations, cash flows and financial position.

Environmental laws and regulations at the federal and state level are subject to change. These changes can also be made retroactively. It is possible that more stringent federal or state environmental rules or regulations could be adopted, which could increase our operating costs and expenses. Consequently, even though we currently have the proper permits, we may be required to invest or spend considerable resources in order to comply with future environmental regulations. Furthermore, ongoing plant operations, which are governed by the Occupational Safety and Health Administration, may change in a way that increases the cost of plant operations. Any of these events could have a material adverse effect on our operations, cash flows and financial position.



Part of our business is regulated by environmental laws and regulations governing the labeling, use, storage, discharge and disposal of hazardous materials. Since we handle and use hazardous substances, changes in environmental requirements or an unanticipated significant adverse environmental event could have a negative impact on our business. While we strive to comply with all environmental requirements, we cannot provide assurance that we have been in compliance at all times or will not incur material costs or liabilities in connection with these requirements. Private parties, including current and former employees, could bring personal injury or other claims against us due to the presence of hazardous substances. We are also exposed to residual risk by our land and facilities which may have environmental liabilities from prior use. Changes in environmental regulations may require us to modify existing plant and processing facilities, which could significantly increase our cost of operations.

The distillers grains that we produce as part of the ethanol production process are used as feed for animals. Should the regulations under the FSMA regarding preventive controls for animal food apply to us, we may need additional resources to comply with the newly established requirements.

Any inability to generate or obtain RINs could adversely affect our operating margins.

Nearly all of our ethanol production is sold with RINs that are used by our customers to comply with the Renewable Fuel Standard. Should our production not meet the EPA's requirements for RIN generation in the future, we would need to purchase RINs in the open market or sell our ethanol at lower prices to compensate for the absence of RINs. The price of RINs depends on a variety of factors, including the availability of qualifying biofuels and RINs for purchase, production levels of transportation fuel and percentage mix of ethanol with other fuels, and cannot be predicted. Failure to obtain sufficient RINs or reliance on invalid RINs could subject us to fines and penalties imposed by the EPA, which could adversely affect our results of operations, cash flows and financial condition.

We trade ethanol and associated RINs acquired from third-parties. Should it be discovered the associated RINs we purchased were invalid, albeit unknowingly, we could be subject to substantial penalties if we are assessed the maximum amount allowed by law. Prior to 2013, the EPA assessed only modest penalties for RIN violations; however, with the industry now on notice of the possibility of invalid RINs, the EPA could assess much higher penalties going forward, which could have an adverse impact on our profitability.

Compliance with evolving environmental, health and safety laws and regulations, particularly those related to climate change, could be costly.

Our plants emit carbon dioxide as a by-product of ethanol production. In February 2010, the EPA released its final regulations on RFS II, grandfathering our plants at their current authorized capacity. Expansion above these levels will require a 20% reduction in greenhouse gas emissions from the 2005 baseline measurement. Separately, CARB adopted a LCFS that took effect in January 2013, which requires a 10% reduction in the average carbon intensity of gasoline and diesel transportation fuels from 2010 to 2020. An ILUC component is included in the greenhouse gas emission calculation, which may have an adverse impact on the market for corn-based ethanol in California.

To expand our production capacity, federal and state regulations may require us to obtain additional permits, achieve EPA's efficient producer status under the pathway petition program, install advanced technology or reduce drying distillers grains. Compliance with future laws or regulations to decrease carbon dioxide could be costly and may prevent us from operating our plants as profitably, which may have an adverse impact on our operations, cash flows and financial position.

Global competition could affect our profitability.

We compete with producers in the United States and abroad. Depending on feedstock, labor and other production costs, producers in other countries, such as Brazil, may be able to produce ethanol cheaper than we can. Under RFS II, certain parties are obligated to meet an advanced biofuel standard. In recent years, sugarcane ethanol imported from Brazil has been one of the most economical means for obligated parties to meet this standard. While transportation costs, infrastructure constraints and demand may temper the impact of ethanol imports, foreign competition remains a risk to our business. Moreover, significant additional foreign ethanol production could create excess supply, which could result in lower ethanol prices throughout the world, including the United States. Any penetration of ethanol imports into the domestic market may have a material adverse effect on our operations, cash flows and financial position.

Increased ethanol industry penetration by oil and other multinational companies could impact our margins.

We operate in a very competitive environment. The ethanol industry consists primarily of smaller entities engaged exclusively in ethanol production and large integrated grain companies that produce ethanol in addition to their base grain businesses. We compete for capital, labor, corn and other resources with these companies.

Until recently, oil companies, petrochemical refiners and gasoline retailers were not engaged in ethanol production even though they form the primary distribution network for ethanol blended with gasoline. During the past five years, several large oil companies have started producing ethanol. If these companies increase their ethanol plant ownership or additional companies commence production, the need to purchase ethanol from independent producers like us could diminish and adversely effect on our operations, cash flows and financial position.

Sales of distillers grains depend on its continued market acceptance as livestock feed.

Antibiotics may be used during the fermentation process to control bacterial contamination; therefore, it is possible for antibiotics to be present in small quantities in our distillers grains, which is a co-product of the fermentation process and marketed as an animal feed. The FDA has expressed concern about potential animal and human health hazards using distillers grains with antibiotic residue as an animal feed. Should the FDA introduce regulations limiting the sale of such distillers grains in domestic or international markets, the market value of our distillers grains could be diminished, which would negatively impact our profitability.

Independently, if public perception regarding distillers grains as an acceptable animal feed were to change or if the public became concerned about the impact of distillers grains in the food supply, the market for distillers grains could be negatively impacted, which would adversely affect our profitability.

We extract industrial grade corn oil from the whole stillage process before producing distillers grains. Several universities are trying to determine how corn oil extraction affects nutritional energy values of the resulting distillers grains. If it is determined that corn oil extraction adversely affects the digestible energy content of distillers grains, the value of our distillers grains may be affected, which could have a negative impact on our profitability.

International activities such as boycotts, embargoes, product rejection, and compliance matters, may have an adverse effect on our results of operations.

In 2010, the market share of U.S. ethanol exports to the EU began to increase significantly while the market share of European ethanol production began to modestly decline. In October 2011, the European Commission initiated anti-dumping and anti-subsidy investigations. In 2013, the EU imposed a five-year tariff of \$83.33 per metric ton on U.S. ethanol to discourage foreign competition.

Since 2010, approximately 25% of distillers grains produced in the United States have been exported. China has been the largest importer of distillers grains in the world, importing approximately 50% of the world exports in 2015. In 2013, China began rejecting U.S. dried distillers grains because it contained genetically modified corn not yet approved for import. In early 2015, China lifted this ban, allowing distillers grains into their country. In January 2016, China's Ministry of Commerce once again initiated an anti-dumping investigation into U.S.-produced dried distillers grains exported to China. Should the investigation result in additional findings, the market for distillers grains could be negatively impacted in the future and may affect our profitability.

Our agribusiness operations are subject to significant government and private sector regulations.

Our agribusiness operations are regulated by government and private sector associations that can impose significant costs on our business. Failure to comply could result in additional expenditures, fines or criminal action. Our production levels, markets and grains we merchandise are affected by federal government programs, which include USDA acreage control and price support programs. Government policies such as tariffs, duties, subsidies, import and export restrictions and embargoes can also impact our business. Changes in government policies and producer support could impact the type and amount of grains planted, which could affect our ability to buy grain. Export restrictions or tariffs could limit sales opportunities outside of the United States.

Our agribusiness segment is affected by the supply and demand for grain, and is sensitive to factors that are often outside of our control.

Within our agribusiness segment, we compete with grain merchandisers, processors and end-users to buy grain, and grain merchandisers, private elevator operators and cooperatives to sell it. Many of our competitors are significantly larger than us and compete in more diverse markets. Failure to compete effectively would impact our profitability.

Fixed-price purchase obligations and grain inventories expose us to market price risk between the time of purchase and final sale. Weather, economic, political, environmental and technological conditions and developments, as well as other factors beyond our control, local and worldwide, can affect supply, demand and consequently, the value of our inventories held for sale and adversely affect profitability of the agribusiness segment.

We hedge the majority of our grain inventory with derivative instruments to manage the risk associated with commodity price changes. However, we are unable to hedge all of the risk due to timing, availability of hedge contract counterparties and third-party credit risk. Furthermore, it is possible that the derivatives we employ are not effective in offsetting price changes. This can happen when the derivative and the hedged item are not perfectly matched. Our grain derivatives, for example, do not hedge the basis component, or the difference between the cash price at one of our grain facilities and the soonest exchange-traded futures price, of our grain inventory and contracts. Although the basis component is smaller and generally less volatile than the futures component of grain market prices, significant unfavorable movement in basis on grain positions as large as ours may significantly impact our profitability.

Commodities futures trading is subject to extensive regulations.

The futures industry is subject to extensive regulation. Since we use exchange-traded futures contracts as part of our business, we are required to comply with a wide range of requirements imposed by the CFTC, National Futures Association and the exchanges on which we trade. These regulatory bodies are responsible for safeguarding the integrity of the futures markets and protecting the interests of market participants. As a market participant, we may be subject to regulation concerning trade practices, business conduct, reporting, position limits, record retention, the conduct of our officers and employees, and other matters.

Failure to comply with the laws, rules or regulations applicable to futures trading could have adverse consequences. It is possible for us, an officer or one of our employees to be subject to claims arising from acts that regulators assert violated these laws, rules or regulations. Such claims could result in fines, settlements or suspended trading privileges,

which could have a material adverse impact on our business, financial condition or operating results.

Owning and operating a cattle feedlot operation involves numerous external factors that are outside of our control.

Our cattle feedlot operation involves numerous risks that could lead to increased costs or decreased demand for beef products, which could have an adverse effect on our results of operations and financial condition, including:

- constantly changing and potentially volatile supply and demand, which affect the cost of livestock and feed ingredients and the sales price of our cattle;
- outbreak of disease in our feedlot or public perception that an outbreak has occurred, which could lead to inadequate supply, reduced consumer confidence in the safety and quality of beef products, adverse publicity, cancellation of orders and import or export restrictions;
- contamination or allegations of contamination of our products or our competitors' products, which could subject us to product liability claims or product recalls;
  - liabilities in excess of our insurance policy limits or related uninsurable risks if outbreaks of disease or other conditions result in significant losses;
  - inability to attract sufficient customers to maximize operational efficiencies;
- loss of one or more major customers, a substantial decline in customer orders or a significant decrease in beef prices for a sustained period of time;
- customer defaults on cattle, feed or other input financing;
- diminished access to international markets, including import trade restrictions due to disease or other perceived health or food safety issues, or changes in political or economic conditions;

- reduced red meat consumption due to dietary changes or other issues, leading to depressed cattle prices;
- increased water costs due to water use restrictions, including those related to diminishing water table levels;
- operational restrictions resulting from government regulations; and
- risks relating to environmental hazards.

Our debt exposes us to numerous risks that could have significant consequences to our shareholders.

Risks related to the level of debt we have include:

- requiring a substantial portion of cash to be dedicated for debt payments, reducing the availability of cash flow for working capital, capital expenditures and other general business activities;
- requiring a substantial portion of cash reserves to be held for debt service, limiting our ability to invest in new growth opportunities;
- limiting our ability to obtain additional financing for working capital, capital expenditures, acquisitions and other activities;
- limiting our flexibility to plan for or react to changes in the businesses and industries in which we operate;
- increasing our vulnerability to general and industry-specific adverse economic conditions;
- being at a competitive disadvantage against less leveraged competitors;
- being vulnerable to increases in prevailing interest rates;
- subjecting all or substantially all of our assets to liens, which means there may be no assets left for shareholders in the event of a liquidation; and
- limiting our ability to make operational decisions regarding our business, including limiting our ability to pay dividends, make capital improvements, sell or purchase assets or engage in transactions deemed appropriate and in our best interest.

Most of our debt bears interest at variable rates, which creates exposure to interest rate risk. If interest rates increase, our debt service obligations at variable rates would increase even though the amount borrowed remained the same, decreasing net income.

Our ability to make scheduled payments of principal and interest, to make additional payments required under financial covenants, or to refinance our debt depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not continue generating cash flow sufficient to service our debt because of such factors, including the spread between corn prices and ethanol, corn oil and distillers grains prices. If we are unable to generate sufficient cash flows, we may be required to sell assets, restructure debt or obtain additional equity capital on terms that are onerous or highly dilutive. Our ability to refinance our debt will depend on capital markets and our financial condition at that time. We may not be able to engage in any of these activities or engage in these activities on desirable terms, which could result in default on our debt obligations.

We are not restricted from incurring additional debt, pledging assets, recapitalizing our debt or taking a number of other actions that could diminish our ability to make payments.

We are required to comply with a number of covenants under our existing loan agreements that could hinder our growth.

The loan agreements governing our secured debt financing and the 3.25% convertible senior notes due 2018 contain a number of restrictive affirmative and negative covenants, which limit our ability to incur additional debt; exceed certain limits; pay dividends or distributions; or merge, consolidate or dispose of substantially all of our assets.

We are required to maintain specified financial ratios, including minimum cash flow coverage, working capital and tangible net worth under certain loan agreements. Other agreements require us to use a portion of excess cash flow generated by our operations to prepay the respective term debt. A breach of these covenants could result in default, and if such default is not cured or waived, our lenders could accelerate our debt and declare it immediately due and payable. If this occurs, we may not be able to repay or borrow sufficient funds to refinance the debt. Even if financing is available, it may not be on



acceptable terms. No assurance can be given that our future operating results will be sufficient to comply with these covenants or remedy default.

In the past, we have received waivers from our lenders for failure to meet certain financial covenants and amended our loan agreements to change these covenants. In the event we are unable to comply with these covenants in the future, we cannot provide assurance that we will be able to obtain the necessary waivers or amend our loan agreements to prevent default. Under our 3.25% convertible senior notes, default on any loan in excess of \$10.0 million could result in the notes being declared due and payable.

We operate in a capital intensive business and rely on cash generated from operations and external financing, which could be limited.

Some ethanol producers have faced financial distress, culminating to bankruptcy filings by several companies over the past seven years. This, combined with capital market volatility, has resulted in reduced available capital for the ethanol industry in general. The majority of our ethanol plants' operations and related levels of working capital are funded by long-term credit facilities. Increased commodity prices could increase liquidity requirements. Our operating cash flow is dependent on overall commodity market conditions as well as our ability to operate profitably. In addition, we may need to raise additional financing to fund growth. In some market environments, we may have limited access to incremental financing, which could defer or cancel growth projects, reduce business activity or cause us to default on our existing debt agreements if we are unable to meet our payment schedules. These events could have an adverse effect on our operations and financial position.

Our subsidiaries' debt facilities have ongoing payment requirements that we generally expect to meet from their operating cash flow. Our ability to repay current and anticipated future debt will depend on our financial and operating performance and successful implementation of our business strategies. Our financial and operational performance will depend on numerous factors including prevailing economic conditions, commodity prices, and financial, business and other factors beyond our control. If we cannot repay, refinance or extend our current debt at scheduled maturity dates, we could be forced to reduce or delay capital expenditures, sell assets, restructure our debt or seek additional capital. If we are unable to restructure our debt or raise funds, our operations could be harmed and the value of our stock could be significantly reduced.

We have limitations, as a holding company, in our ability to receive distributions from our subsidiaries.

We conduct most of our operations through our subsidiaries and rely on dividends or intercompany transfers of funds to generate free cash flow. Some of our subsidiaries are currently, or are expected to be, limited in their ability to pay dividends or make distributions under the terms of their financing agreements. Consequently, we cannot rely on the cash flow from one subsidiary to satisfy the loan obligations of another subsidiary. As a result, if a subsidiary is unable to satisfy its loan obligations, we may not be able to prevent default by providing additional cash to that subsidiary, even if sufficient cash exists elsewhere within our organization.

Our success depends on our ability to manage our growing and changing operations.

Since our formation in 2004, our business has grown significantly in size and complexity. This growth places substantial demands on our management, systems, internal controls, and financial and physical resources. If we acquire additional operations, we may need to further develop our financial and managerial controls and reporting systems, and could incur expenses related to hiring additional qualified personnel and expanding our information technology infrastructure. Our ability to manage growth effectively could impact our results of operations, financial position and cash flows.

We may fail to realize the anticipated benefits of mergers, acquisitions, joint ventures or partnerships.

We have increased the size of our operations significantly through mergers and acquisitions and intend to continue exploring potential growth opportunities. Acquisitions involve numerous risks that could harm our business, including:

- difficulties integrating the operations, technologies, products, existing contracts, accounting processes and personnel and realizing anticipated synergies of the combined business;
- risks relating to environmental hazards on purchased sites;
- risks relating to developing the necessary infrastructure for facilities or acquired sites, including access to rail networks;
- difficulties supporting and transitioning customers;

- diversion of financial and management resources from existing operations;
- the purchase price exceeding the value realized;
- risks of entering new markets or areas outside of our core competencies;
- potential loss of key employees, customers and strategic alliances from our existing or acquired business;
- unanticipated problems or underlying liabilities; and
- inability to generate sufficient revenue to offset acquisition and development costs.

The anticipated benefits of these transactions may not be fully realized or take longer to realize than expected.

We may also pursue growth through joint ventures or partnerships, which typically involve restrictions on actions that the partnership or joint venture may take without the approval of the partners. These provisions could limit our ability to manage the partnership or joint venture in a manner that serves our best interests.

Future acquisitions may involve issuing equity as payment or to finance the business or assets, which could dilute your ownership interest. Furthermore, additional debt may be necessary to complete these transactions, which could have a material adverse effect on our financial condition. Failure to adequately address the risks associated with acquisitions or joint ventures could have a material adverse effect on our business, results of operations and financial condition.

We may fail to realize the anticipated benefits of our joint venture to commercialize algae production.

We own a majority of a joint venture that is focused on developing technology to grow and harvest algae in commercially viable quantities. The algae we produce have the potential to be used for high-quality feedstocks for human nutrition, pharmaceutical applications, animal feed and biofuels. Our primary focus is to grow algae efficiently on a large scale and further develop markets for algae. We believe this technology has specific applications for our ethanol plants that emit carbon dioxide. If we are unable to achieve acceptable production rates, operating costs, capital requirements and product market prices, we could fail to realize any benefit from capturing carbon dioxide to grow and harvest algae.

We depend on a continuous supply of energy and water to operate our plants.

Our plants require a substantial, uninterrupted supply of natural gas, electricity and water to operate. We rely on third parties to provide these resources. We cannot provide assurance that we will be able to secure an adequate supply of energy or water to support current or expected plant operations. If there is an interruption in the supply any reason, we may be required to halt production. Halting production for an extended period of time could have a material adverse effect on our operations, cash flows and financial position.

Replacement technologies could make corn-based ethanol or our process technology obsolete.

Ethanol is used primarily as an additive and oxygenate blended with gasoline. Critics of ethanol blends argue that it decreases fuel economy, causes corrosion and damages fuel pumps. Prior to federal restrictions and ethanol mandates, methyl tertiary-butyl ether, or MTBE, was the leading oxygenate. Other ether products could enter the market and prove to be environmentally or economically superior to ethanol. Alternative biofuel alcohols, such as methanol and butanol, could evolve and replace ethanol.

Research is currently underway to develop products that have advantages over ethanol, such as: lower vapor pressure, making it easier to add to gasoline; similar energy content as gasoline, reducing any decrease in fuel economy caused by blending with gasoline; ability to blend at higher concentration levels in standard vehicles; and reduced susceptibility to separation when water is present. Products offering a competitive advantage over ethanol could reduce our ability to generate revenue and profits from ethanol production.

New ethanol process technologies could emerge that require less energy per gallon to produce and result in lower production costs. Our process technologies could become obsolete and place us at a competitive disadvantage, which could have a material adverse effect on our operations, cash flows and financial position.

We may be required to provide remedies for ethanol, distillers grains or corn oil that does not meet the specifications defined in our sales contracts.

If we produce or purchase ethanol, distillers grains or corn oil that does not meet the specifications defined in our sales contracts, we may be subject to quality claims. We could be required to refund the purchase price of any non-conforming product or replace the non-conforming product at our expense. Ethanol, distillers grains or corn oil that we purchase or market and subsequently sell to others could result in similar claims if the product does not meet applicable contract specifications, which could have an adverse impact on our profitability.

We are exposed to credit risk that could result in losses or affect our ability to make payments should a counterparty fail to perform according to the terms of our agreement.

We are exposed to credit risk from a variety of customers, including major integrated oil companies, large independent refiners, petroleum wholesalers, commercial grain buyers and other ethanol plants. We are also exposed to credit risk with major suppliers of petroleum products and agricultural inputs when we make payments for undelivered inventories. Our fixed-price forward contracts are subject to credit risk when prices change significantly prior to delivery. The inability by a third party to pay us for our sales, provide product that was paid for in advance or deliver on a fixed-price contract could result in a loss and adversely impact our liquidity and ability to make our own payments when due.

We may incur a loss should our counterparty fail to perform under a third-party marketing agreement.

Under a third-party marketing agreement, we purchase their ethanol production and sell it in various markets for future deliveries. Under the terms of the agreement, the third-party is not obligated to produce a minimum volume, therefore, we may not receive the full amount of ethanol the third-party plant is expected to produce. Any interruption or curtailment of production could force us to purchase ethanol at higher prices to meet contractual obligations. Recoveries would be dependent on the third party's ability to pay, and in the event they were unable to pay, our profitability could be materially and adversely impacted.

Business disruptions due to unforeseen operational failures or factors outside of our control could impact our ability to fulfill contractual obligations.

Natural disasters, significant track damage resulting from a train derailment or strikes by our transportation providers could delay shipments of raw materials to our plants or deliveries of ethanol and distillers grains to our customers. Unforeseen operational issues due to faulty construction design or other factors could result in an extended facility shutdown. If we are unable to meet customer demand or contract delivery requirements due to stalled operations caused by business disruptions, we could potentially lose customers.

Adverse weather conditions, such as inadequate or excessive amounts of rain during the growing season, overly wet conditions, an early freeze or snowy weather during harvest could impact the supply of corn that is needed to produce ethanol. Corn stored in an open pile may be damaged by rain or warm weather before the corn is dried, shipped or moved into a storage structure.

We may not have adequate insurance to cover losses from certain events.

Losses related to risks that are not covered by insurance or available under acceptable terms such as war, riots or terrorism could have a material adverse effect on our operations, cash flows and financial position.

Our Obion, Tennessee plant and certain fuel terminals are located within a recognized seismic zone. We modified our Obion facility to comply with regional structural requirements and obtained additional insurance coverage specific to earthquake risk for this particular plant and these fuel terminals. We cannot provide assurance that these facilities would remain in operation should a seismic event occur.

Our ethanol-related assets may be at greater risk of terrorist attacks, threats of war or actual war, than other possible targets.

Terrorist attacks in the United States, including threats of war or actual war, may adversely affect our operations. We believe energy-related assets are at greater risk than other possible targets due to the level of disruption it could cause. A direct attack on our ethanol production plants, storage facilities, fuel terminals and railcars could have a material adverse effect on our financial condition, results of operations and cash flows. Furthermore, a terrorist attack could have an adverse

impact on ethanol prices. Disruption or significant increases in ethanol prices could result in government-imposed price controls.

Our network infrastructure, enterprise applications and internal technology systems could be damaged or otherwise fail and disrupt business activities.

Our network infrastructure, enterprise applications and internal technology systems are instrumental to the day-to-day operations of our business. Numerous factors outside of our control, including earthquakes, floods, lightning, tornados, fire, power loss, telecommunication failures, computer viruses, physical or electronic vandalism or similar disruptions could result in system failures, interruptions or loss of critical data and prevent us from fulfilling customer orders. We cannot provide assurance that our backup systems are sufficient to mitigate hardware or software failures, which could result in business disruptions that negatively impact our operating results and damage our reputation.

We could be adversely affected by cyber-attacks, data security breaches and significant information technology systems interruptions.

Information security risks have generally increased in recent years as a result of the proliferation of new technologies and the increased sophistication and frequency of cyber-attacks and data security breaches. To manage the risk associated with potential technology security breaches, we have implemented disaster recovery plans for our critical systems and security measures to protect us against cyber-based attacks. However, our information technology systems and network infrastructure may be subject to unauthorized access or attack at any time and there can be no assurances that our infrastructure protection technologies and disaster recovery plans are sufficient to prevent a technology systems breach, systems failure, business interruption or loss of sensitive data. The potential impact of any of these incidents, should they occur, could be material and have an adverse impact to our revenues, operating results, financial condition or damage our reputation.

We may not be able to hire and retain qualified personnel to operate our ethanol plants.

Our success depends, in part, on our ability to attract and retain competent employees. Qualified managers, engineers, merchandisers and other personnel must be hired for each of our locations and competition for suitable candidates in the ethanol industry can be intense. If we are unable to hire and retain productive, skilled personnel, we may not be able to maximize ethanol production, optimize plant operations or execute our business strategy.

Disruptions in the credit market or a downgrade in our credit rating could limit our access to capital.

We may need additional capital to fund our growth or other business activities in the future. If our credit rating is downgraded, the cost of capital under our existing or future financing arrangements could increase and affect our ability to trade with various commercial counterparties or cause our counterparties to require additional forms of credit support. If capital markets are disrupted, we may not be able to access capital at all or capital may only be available under less favorable terms.

We have had a history of operating losses and could incur future operating losses.

We incurred operating losses in 2006, 2007, 2008 and during certain quarters of 2012 and 2015, and could incur operating losses in the future that are substantial. Although we have had periods of sustained profitability, we may not be able to maintain or increase profitability on a quarterly or annual basis, which could impact the market price of our common stock and the value of your investment.

#### Risks Related to our Partnership

We depend on the partnership to provide fuel storage and transportation services.

The partnership's operations are subject to all of the risks and hazards inherent in the storage and transportation of fuel, including: damages to storage facilities, railcars and surrounding properties caused by floods, fires, severe weather, explosions, natural disasters or acts of terrorism; mechanical or structural failures at the partnership's facilities or at third-party facilities at which its operations are dependent; curtailments of operations relative to severe weather; and other hazards, resulting in severe damage or destruction of the partnership's assets or temporary or permanent shut-down of the partnership's facilities. If the partnership is unable to serve our storage and transportation needs, our ability to operate our business could be adversely impacted, which could adversely affect our financial condition and results of operations. The inability of the partnership to continue operations, for any reason, could also impact the value of our investment in the



partnership and, because the partnership is a consolidated entity, our business, financial condition and results of operations.

The partnership may not have sufficient available cash to pay quarterly distributions on its units.

The amount of cash the partnership can distribute depends on how much cash is generated from operations, which can fluctuate from quarter to quarter based on ethanol and other fuel volumes, handling fees, payments associated with minimum volume commitments, timely payments by subsidiaries and other third parties, and prevailing economic conditions. The amount of cash available for distribution also depends on the partnership's operating and general and administrative expenses, capital expenditures, acquisitions and organic growth projects, debt service requirements, working capital needs, ability to borrow funds and access capital markets, revolving credit facility restrictions, cash reserves and other risks affecting cash levels. Increasing the partnership's borrowings or other debt to finance its growth strategy could increase interest expense, which could impact the amount of cash available for distributions.

There are no limitations in the partnership agreement regarding its ability to issue additional units. Should the partnership issue additional units in connection with an acquisition or expansion, the distributions on the incremental units will increase the risk that the partnership will be unable to maintain or increase distributions on a per unit basis.

Increases in interest rates could adversely impact the partnership's unit price, ability to issue equity or incur debt, and pay cash distributions at intended levels.

The partnership's cash distributions and implied distribution yield affect its unit price. Distributions are often used by investors to compare and rank yield-oriented securities when making investment decisions. A rising interest rate environment could have an adverse impact on the partnership's unit price, ability to issue equity or incur debt or pay cash distributions at intended levels, which could adversely impact the value of our investment in the partnership.

We may be required to pay taxes on our share of the partnership's income that are greater than the cash distributions we receive from the partnership.

The unitholders of the partnership generally include, for purposes of calculating their U.S. federal, state and local income taxes, their share of the partnership's taxable income, whether they have received cash distributions from the

partnership. We ultimately may not receive cash distributions from the partnership equal to our share of taxable income or the taxes that are due with respect to that income.

We will incur increased costs as a result of owning and operating a publicly traded partnership.

We expect to incur an estimated \$2.0 million of incremental costs each year associated with the partnership being publicly traded. It is possible, however, that the actual costs will be higher than currently estimated. Some of the costs include increased legal and financial expenses related to complying with SEC and Nasdaq requirements. The partnership is required to have at least three independent directors, create an audit committee and adopt policies regarding internal controls and disclosure controls and procedures within one year of its initial listing on Nasdaq. We will also incur additional costs associated with officer liability insurance under a separate policy from our corporate director and officer insurance.

All of the executive officers and a majority of the initial directors of the partnership are also officers of Green Plains Inc., which could result in conflicts of interest.

We indirectly own and control the partnership and appoint all of its officers and directors. All of the executive officers and a majority of the initial directors of the partnership are also an officer or director. Although our directors and officers have a fiduciary responsibility to manage the company in a manner that is beneficial to us, as directors and officers of the partnership, they also have certain duties to the partnership and its unitholders. Conflicts of interest may arise between us and our affiliates, and the partnership and its unitholders, and in resolving these conflicts, the partnership may favor its own interests over the company's interests. In certain circumstances, the partnership may refer conflicts of interest or potential conflicts of interest to its conflicts committee, which must consist entirely of independent directors, for resolution. The conflicts committee must act in the best interests of the public unitholders of the partnership. As a result, the partnership may manage its business in a manner that differs from the best interests of the company or our stockholders.

Cash available for distributions could be reduced and likely cause a substantial reduction in unit value if the partnership became subject to entity-level taxation for federal income tax purposes.

The present federal income tax treatment of publicly traded partnerships or investments in its units could be modified, at any time, by administrative, legislative or judicial changes and interpretations. From time to time, members of Congress propose and consider substantive changes to the existing federal income tax laws that affect publicly traded partnerships. Should any legislative proposal eliminate the qualifying income exception, all publicly traded partnerships would be treated as corporations for federal income tax purposes. The partnership would be required to pay federal income tax on its taxable income at the corporate tax rate and likely state and local income taxes at varying rates as well. Distributions to unitholders would be taxed as corporate distributions. The partnership's cash available for distributions and the value of the units would be substantially reduced.

#### Risks Related to our Common Stock

The price of our common stock may be highly volatile and subject to factors beyond our control.

Some of the many factors that can influence the price of our common stock include:

- our results of operations and the performance of our competitors;
- public's reaction to our press releases, public announcements and filings with the SEC;
- changes in earnings estimates or recommendations by equity research analysts who follow us or other companies in our industry;
- changes in general economic conditions;
- changes in market prices for our products or raw materials and related substitutes;
- sales of common stock by our directors, executive officers and significant shareholders;
- actions by institutional investors trading in our stock;
- disruption of our operations;
- any major change in our management team;
- other developments affecting us, our industry or our competitors; and
- U.S. and international economic, legal and regulatory factors unrelated to our performance.

In recent years the stock market has experienced significant price and volume fluctuations, which are sometimes unrelated to the operating performance of any particular company. These broad market fluctuations could materially reduce the price of our common stock price based on factors that have little or nothing to do with our company or its

performance.

Anti-takeover provisions could make it difficult for a third party to acquire us.

Our restated articles of incorporation, restated bylaws and Iowa's law contain anti-takeover provisions that could delay or prevent change in control of us or our management. These provisions discourage proxy contests, making it difficult for our shareholders to elect directors or take other corporate actions without the consent of our board of directors, which include:

- board of directors with three-year staggered terms;
- board members can only be removed for cause with an affirmative vote of no less than two-thirds of the outstanding shares;
- shareholder action can only be taken at a special or annual meeting, not by written consent except where required by Iowa law;
- shareholders are restricted from making proposals at shareholder meetings; and
- the board of directors can issue authorized or unissued shares of stock.

We are subject to the provisions of the Iowa Business Corporations Act, which prohibits combinations between an Iowa

corporation whose stock is publicly traded or held by more than 2,000 shareholders and an interested shareholder for three years unless certain exemption requirements are met.

Provisions in the convertible notes could also make it more difficult or too expensive for a third party to acquire us. If a takeover constitutes a fundamental change, holders of the notes have the right to require us to repurchase their notes in cash. If a takeover constitutes a make-whole fundamental change, we may be required to increase the conversion rate for holders who convert their notes. In either case, the obligation under the notes could increase the acquisition cost and discourage a third party from acquiring us.

These items discourage transactions that could otherwise command a premium over prevailing market prices and may limit the price investors are willing to pay for our stock.

Non-U.S. shareholders may be subject to U.S. income tax on gains related to the sale of their common stock.

If we are a U.S. real property holding corporation during the shorter of the five-year period before the stock was sold or the period the stock was held by a non-U.S. shareholder, the non-U.S. shareholder could be subject to U.S. federal income tax on gains related to the sale of their common stock. Whether we are a U.S. real property holding corporation depends on the fair market value of our U.S. real property interests relative to our other trade or business assets and non-U.S. real property interests. We cannot provide assurance that we are not a U.S. real property holding corporation or will not become one in the future.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We believe that the property owned and leased at our locations is sufficient to accommodate our current needs, as well as potential expansion.

Substantially all of our owned real property is used to secure our loans. See Note 11 – Debt included as part of the notes to consolidated financial statements for information about our loan agreements.

#### Corporate

We lease approximately 30,000 square feet of office space at 450 Regency Parkway in Omaha, Nebraska for our corporate headquarters, which houses our corporate administrative functions and commodity trading operations. This lease expires on January 31, 2017. In October 2015, we signed a lease for new office space of approximately 54,000 square feet at 1811 Aksarben Drive in Omaha, Nebraska for our corporate headquarters. Payments on this lease begin in February 2017.

#### Ethanol Production Segment

We own approximately 2,400 acres of land at and around our ethanol production facilities. As detailed in our discussion of the ethanol production segment in Item 1 – Business, our ethanol plants have the capacity to produce approximately 1.2 billion gallons of ethanol per year.

#### Agribusiness Segment

We own approximately 60 acres of land at our five grain elevators and approximately 2,590 acres of land at our cattle feedlot operation. As detailed in our discussion in Item 1 – Business, our agribusiness segment facilities include five grain elevators with combined grain storage capacity of approximately 11.6 million bushels, a cattle feedlot operation with the capacity to support 70,000 head of cattle and 2.8 million bushels of grain storage capacity, and grain storage capacity at our ethanol plants of approximately 44.2 million bushels.

#### Marketing and Distribution Segment

Our marketing operations are conducted primarily at our corporate office, in Omaha, Nebraska. We also lease office space in McKinney, Texas and Des Moines, Iowa for these operations.



## Partnership Segment

Our partnership owns approximately five acres of land and leases approximately 19 acres of land at eight locations in seven states, as disclosed in Item 1 – Business, where its fuel terminals are located. The partnership also owns approximately 50 acres where its storage tanks are located at our ethanol production facilities.

## Item 3. Legal Proceedings.

We are currently involved in litigation that has occurred over the ordinary course of doing business. We do not believe this will have a material adverse effect on our financial position, results of operations or cash flows.

## Item 4. Mine Safety Disclosures.

Not applicable.

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PART II

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

Our common stock trades under the symbol “GPPE” on Nasdaq. The following table lists the common stock’s highest and lowest price for the periods indicated:

Year Ended December 31, 2015	High	Low
Three months ended December 31, 2015 (1)	\$ 24.42	\$ 18.52
Three months ended September 30, 2015	28.16	17.13
Three months ended June 30, 2015	34.05	26.60
Three months ended March 31, 2015	30.20	20.31
Year Ended December 31, 2014	High	Low
Three months ended December 31, 2014	\$ 37.77	\$ 21.19
Three months ended September 30, 2014	46.28	32.56
Three months ended June 30, 2014	33.52	25.62
Three months ended March 31, 2014	31.57	18.02

(1) The closing price of our common stock on December 31, 2015 was \$22.90.

Holders of Record

We had 2,225 holders of record of our common stock, not including beneficial holders whose shares are held in names other than their own, on February 12, 2016. This figure does not include approximately 34.3 million shares held in depository trusts.

Dividend Policy

In August 2013, our board of directors initiated a quarterly cash dividend, which we have paid every quarter since and anticipate paying in future quarters. In August 2015 and November 2015, our board of directors declared a quarterly cash dividend of \$0.12 per share, which represents a 50% increase from the quarterly dividends declared in the first and second quarter of 2015 and the second annual increase in quarterly dividends paid to shareholders. On February 10, 2016, our board of directors declared a quarterly cash dividend of \$0.12 per share. The dividend is payable on March 18, 2016, to shareholders of record at the close of business on February 26, 2016. Future declarations are subject to board approval and may be adjusted as our cash position, business needs or market conditions change.

#### Issuer Purchases of Equity Securities

Employees surrender shares when restricted stock grants are vested to satisfy statutory minimum required payroll tax withholding obligations. There were no shares that were surrendered during the fourth quarter of 2015.

In August 2014, we announced a share repurchase program of up to \$100 million of our common stock. Under this program, we may repurchase shares in open market transactions, privately negotiated transactions, accelerated buyback programs, tender offers or by other means. The timing and amount of the transactions are determined by management based on its evaluation of market conditions, share price, legal requirements and other factors. The program may be suspended, modified or discontinued at any time, without prior notice. There were no shares repurchased under the program during the fourth quarter of 2015. Approximately \$96.0 million of shares are remaining to be repurchased under the program.

#### Recent Sales of Unregistered Securities

None.

## Equity Compensation Plans

Refer to Item 12 – Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters for information regarding shares authorized for issuance under equity compensation plans.

## Performance Graph

The following graph compares our cumulative total return with the S&P Smallcap 600 Index, Nasdaq Composite Index (IXIC) and the Nasdaq Clean Edge Green Energy Index (CELS) for each of the five years ended December 31, 2015. Green Plains' stock is included in the S&P Smallcap 600 Index, which measures the small-cap segment of the U.S. equity market. The S&P Smallcap 600 Index may be considered more reflective of our stock's performance than the Nasdaq Composite Index; therefore, the S&P Smallcap 600 Index was added into the performance graph this year. The graph assumes a \$100 investment in our common stock and each index at December 31, 2010, and that all dividends were reinvested.

	12/10	12/11	12/12	12/13	12/14	12/15
Green Plains Inc.	\$ 100.00	\$ 86.68	\$ 70.25	\$ 172.94	\$ 222.71	\$ 209.52
Nasdaq Composite	100.00	100.53	116.92	166.19	188.78	199.95
S&P Smallcap 600	100.00	101.02	117.51	166.05	175.61	172.14
Nasdaq Clean Edge Green Energy	100.00	62.01	64.84	121.94	127.90	126.21

The information in the graph will not be considered solicitation material, nor will it be filed with the SEC or incorporated by reference into any future filing under the Securities Act or the Exchange Act, unless we specifically incorporate it by reference into our filing.



## Item 6. Selected Financial Data.

The statement of operations data for the years ended December 31, 2015, 2014 and 2013 and the balance sheet data as of December 31, 2015 and 2014 are derived from our audited consolidated financial statements and should be read together with the accompanying notes included elsewhere in this report.

The statement of operations data for the years ended December 31, 2012 and 2011 and the balance sheet data as of December 31, 2013, 2012 and 2011 are derived from our audited consolidated financial statements that are not included in this report, which describe a number of matters that materially affect the comparability of the periods presented.

The following selected financial data should be read together with Item 7 – Management’s Discussion and Analysis of Financial Condition and Results of Operations of this report. The financial information below is not necessarily indicative of results to be expected for any future period. Future results could differ materially from historical results due to numerous factors, including those discussed in Item 1A – Risk Factors of this report.

	Year Ended December 31,				
	2015	2014	2013	2012	2011
Statement of Operations Data: (in thousands, except per share information)					
Revenues	\$ 2,965,589	\$ 3,235,611	\$ 3,041,011	\$ 3,476,870	\$ 3,553,712
Costs and expenses	2,904,512	2,949,337	2,933,160	3,459,118	3,454,699
Gain on disposal of assets (1)	-	-	-	47,133	-
Operating income	61,077	286,274	107,851	64,885	99,013
Total other expense	39,612	35,844	35,570	39,729	37,114
Net income	15,228	159,504	43,391	11,763	38,213
Net income attributable to Green Plains	7,064	159,504	43,391	11,779	38,418
Earnings per share attributable to Green Plains:					
Basic	\$ 0.19	\$ 4.37	\$ 1.44	\$ 0.39	\$ 1.09
Diluted	\$ 0.18	\$ 3.96	\$ 1.26	\$ 0.39	\$ 1.01
Other Data:					
EBITDA (unaudited and in thousands)	\$ 127,781	\$ 352,477	\$ 156,492	\$ 115,505	\$ 148,620

	December 31,				
	2015	2014	2013	2012	2011
Balance Sheet Data (in thousands):					
Cash and cash equivalents	\$ 384,867	\$ 425,510	\$ 272,027	\$ 254,289	\$ 174,988
Current assets	912,577	903,415	633,305	568,035	576,420
Total assets	1,929,328	1,821,062	1,532,045	1,349,734	1,420,828
Current liabilities	438,669	511,540	409,197	432,384	360,965
Long-term debt	443,547	399,440	480,746	362,549	493,407
Total liabilities	970,419	1,023,613	986,687	859,232	915,471
Stockholders' equity	958,909	797,449	545,358	490,502	505,357

(1) In December 2012, we sold 12 grain elevators located in northwestern Iowa and western Tennessee consisting of approximately 32.6 million bushels of grain storage capacity and all of our agronomy and retail petroleum operations.

Management uses earnings before interest, income taxes, depreciation and amortization, or EBITDA, to compare the financial performance of our business segments and manage those segments. Management believes EBITDA is a useful measure to compare our performance against other companies. EBITDA should not be considered an alternative to, or more meaningful than, net income or cash flow, which are determined in accordance with GAAP. EBITDA calculations may vary from company to company. Accordingly, our computation of EBITDA may not be comparable with a similarly titled measure of another company.

The following table reconciles net income to EBITDA for the periods indicated (in thousands):

	Year Ended December 31,				
	2015	2014	2013	2012	2011
Net income	\$ 15,228	\$ 159,504	\$ 43,391	\$ 11,763	\$ 38,213
Interest expense	40,366	39,908	33,357	37,521	36,645
Income tax expense	6,237	90,926	28,890	13,393	23,686
Depreciation and amortization	65,950	62,139	50,854	52,828	50,076
EBITDA	\$ 127,781	\$ 352,477	\$ 156,492	\$ 115,505	\$ 148,620

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

### General

The following discussion and analysis includes information management believes is relevant to assess and understand our consolidated financial condition and results of operations. This section should be read in conjunction with our consolidated financial statements, accompanying notes and the risk factors contained in this report.

### Overview

Green Plains is an Iowa corporation that was founded in June 2004. As a vertically integrated ethanol producer, marketer and distributor, we focus on generating stable operating margins through our diversified business segments and risk management strategy. We have operations throughout the ethanol value chain, beginning upstream with our grain handling and storage operations, continuing through our ethanol, distillers grains and corn oil production operations, and ending downstream with our marketing, terminal and distribution services. We believe owning and operating assets throughout the ethanol value chain enables us to mitigate volatility in commodity prices, differentiating us from companies focused only on ethanol production.

Our profitability is highly dependent on commodity prices, particularly for ethanol, distillers grains, corn oil, corn and natural gas. Since market price fluctuations among these commodities are not always correlated, ethanol production may be unprofitable at times. We use a variety of risk management tools and hedging strategies to monitor real-time operating price risk exposure at each of our plants and lock in favorable margins or temporarily reduce production levels during periods of compressed margins. Our multiple businesses and revenue streams also help to diversify our operations and profitability.

More information about our business, properties and strategy can be found under Item 1 – Business and a description of our risk factors can be found under Item 1A – Risk Factors.

## Industry Factors Affecting our Results of Operations

### U.S. Ethanol Supply and Demand

Domestic ethanol production has increased from 1.8 billion gallons in 2001 to 14.8 billion gallons in 2015, according to EIA. Domestic ethanol consumption has increased more than 15% per year, from 1.7 billion gallons in 2001 to more than 13.9 billion gallons in 2015, accounting for approximately 10% of the U.S. gasoline market.

Federal mandates supporting the production and use of renewable fuels have been a major driver in the demand for ethanol in the United States. Ethanol policies are influenced by the desire to reduce fuel emissions and our dependency on foreign oil. Under RFS II, the required volume of renewable fuel to be blended with transportation fuel was to increase each year to 15.0 billion gallons in 2015 when it was established in October 2010. Since that time, the EPA has sought to address the volume limitations of ethanol given that not all vehicles can use higher ethanol blends and the industry's ability to produce sufficient volumes of the qualifying renewable fuel. On November 30, 2015, the EPA announced final volume requirements for conventional ethanol that were higher than levels proposed in June of 13.61 billion gallons, 14.05 billion gallons and 14.50 billion gallons for 2014, 2015 and 2016, respectively. Significant increases in production capacity beyond the RFS II mandated level could negatively impact the ethanol industry. Reductions in governmental usage mandates could adversely affect the market for ethanol and our results of operations. The results of the 2016 presidential election could impact federal policies regarding renewable fuels.





Domestic demand has also been influenced by incentives to blend based on economics for refiners and blenders to use ethanol as an additive to reduce vehicle emissions and increase octane levels. Even though gasoline traded at a discount to ethanol during the year, ethanol continued to be the most economical oxygenate over Gulf Coast alkylate and reformat substitutes, and the most affordable source of octane over Gulf Coast 93 and toluene substitutes. These incentives may be affected by the price of crude oil, which decreased in price per barrel by approximately 43% during 2015. Increased consumer acceptance and availability of higher blends, such as E15, at retail fuel stations also helped to support domestic demand. There are now 189 retail fuel stations in 23 states offering E15 to consumers as of January 5, 2016.

#### Global Ethanol Supply and Demand

Since 2010, the United States has been the world's largest producer and consumer of ethanol. Approximately 6% of the ethanol produced domestically is marketed worldwide and competes with other sources, including Brazil. The United States and Brazil account for more than 80% of all ethanol production worldwide, according to the USDA Foreign Agriculture Service. Global production has increased from approximately 5.0 billion gallons in 2001 to approximately 24.6 billion gallons in 2014, according to the EIA. Increased ethanol production capacity could create excess supply in world markets, resulting in lower ethanol prices throughout the world, including the United States.

A significant change in feedstock prices, transportation rates, foreign exchange rates and government policies could also alter the global supply dynamics in the top producing countries. In the United States, the primary feedstock for ethanol is corn; in Brazil, the primary feedstock for ethanol is sugarcane. In March 2015, the Brazilian government increased their required ethanol blend to 27% from 25% which, along with more competitively priced ethanol produced from corn, significantly reduced U.S. ethanol imports from Brazil.

There are nearly 30 countries including the EU, which is regulated by a single policy with specific national targets for each country, mandating ethanol and biodiesel usage to reduce fuel emissions. As countries establish mandates or raise their required blend percentages, new export opportunities for U.S. producers are likely to emerge. In 2015, U.S. net exports were approximately 730 million gallons. Canada and Brazil remained the two largest export destinations for U.S. ethanol, importing 29.8% and 13.9%, respectively, in 2015, followed by the Philippines, China and South Korea, which imported 8.6%, 8.4% and 7.1%, respectively.

#### Variability of Commodity Prices

Our business is highly sensitive to commodity price fluctuations, particularly for corn, ethanol, corn oil, distillers grains and natural gas, which are impacted by factors that are outside of our control, including weather conditions, corn yield, changes in domestic and global ethanol supply and demand, government programs and policies and the price of crude oil, gasoline and substitute fuels. We use various financial instruments to manage and reduce our exposure to price variability. For more information about our commodity price risk, refer to Item 7A. - Qualitative and Quantitative Disclosures About Market Risk, Commodity Price Risk in this report.

There may be periods of time that, due to the variability of commodity prices and compressed margins, we reduce or cease operations at certain of our ethanol plants. The reduced production rates increase ethanol yields and optimize cash flow in lower margin environments. In 2012, we reduced production volumes at several of our ethanol plants which resulted in total production of approximately 91% of our daily average capacity in direct response to unfavorable operating margins. During 2015 and 2014 we produced at approximately 91% and 96% of our daily average capacity, respectively. The low margin environment was impacted by the energy market which saw historic low crude oil prices as world supply reached record levels.

#### Reduced Availability of Capital

Some ethanol producers have faced financial distress over the past several years, culminating with bankruptcy filings by several companies. This, in combination with continued volatility in the capital markets, has resulted in reduced availability of capital for the ethanol industry in general. In this market environment, we may experience limited access to incremental financing.

#### Legislation

Federal and state governments have enacted numerous policies and incentives to encourage the use of domestically produced alternative fuels. RFS II has been, and we expect will continue to be, a driver in the growth of ethanol usage.

to drought conditions in 2012 and claims that the market will be unwilling to accept greater than 10% ethanol blends, legislation aimed at reducing or eliminating the use of renewable fuels required by RFS II has been introduced to Congress.

The U.S. ethanol industry relies heavily on tank cars to deliver its product to market. The company leases approximately 2,600 tank cars, including 2,500 leased by our partnership to transport ethanol. On May 1, 2015, the DOT finalized an enhanced tank car standard and established a schedule to retrofit or replace older tank cars, among other safety protocols. Adoption of the new standard will take existing railcars out of service for a period of time while these upgrades are made, tightening supply in our industry that is highly dependent on railcars to transport its product. In addition, companies that transport hazardous materials must develop more accurate classification protocols.

In September 2015, in response to FSMA, the FDA issued rules for Current Good Manufacturing Practice, Hazard Analysis and Risk-Based Preventative Controls for food for animals. The rules require FDA-registered food facilities to address safety concerns for sourcing, manufacturing and shipping food products through food safety programs and plans, which includes conducting hazard analyses, developing risk-based preventative controls and monitoring, and addressing intentional adulteration, recalls, sanitary transportation and supplier verification. While we are still reviewing the regulation, we may need additional resources to comply with the new requirements since our distillers grains are used as feed for animals. Our cattle feedlot operation is included under the FDA's definition of "farm" and is exempt from the FSMA requirements.

## Industry Fundamentals

The ethanol industry is supported by a number of market fundamentals that drive its long-term outlook and extend beyond the short-term margin environment. Domestic ethanol production continues to be fairly fragmented. As of January 23, 2016, there were 216 ethanol plants capable of producing 15.7 bgy, according to Ethanol Producer magazine. The top five producers account for 43% of the domestic production capacity. In seven years, we have more than tripled our daily production capacity through strategic acquisitions and intend to continue pursuing both organic and acquisitive growth opportunities.

The domestic gasoline market continues to evolve as refiners produce more CBOB, a sub-grade, 84 octane gasoline, which requires ethanol or other octane sources to meet the minimum octane rating requirements for the U.S. gasoline market. The demand for ethanol is also affected by the overall demand for transportation fuel. Currently, total U.S. gasoline demand is approximately 139.0 billion gallons annually, according to the EIA. The ethanol blend rate in 2015 was approximately 9.9% of total gasoline demand, or 13.9 billion gallons. Demand for transportation fuel is affected

by the number of miles traveled by businesses and consumers and the fuel economy of vehicles. Consumer acceptance of E15 and E85 fuels and flex-fuel vehicles is one factor that may be necessary before ethanol can achieve significant growth in U.S. market share. Although the ethanol export markets are affected by competition from other ethanol exporters, mainly Brazil, we expect exports to remain active in 2016. Overall, the U.S. ethanol industry is producing at levels to meet current domestic and export demand and ethanol prices have remained at a discount to octane substitutes, providing blenders and refiners an economic incentive to blend.

#### Critical Accounting Policies and Estimates

The preparation of our consolidated financial statements requires that we use estimates that affect the reported assets, liabilities, revenue and expense and related disclosures for contingent assets and liabilities. We base our estimates on experience and assumptions we believe are proper and reasonable. While we regularly evaluate the appropriateness of these estimates, actual results could differ materially from our estimates. The following accounting policies, in particular, may be impacted by judgments, assumptions and estimates used in the preparation of our consolidated financial statements.

#### Revenue Recognition

We recognize revenues when there is evidence that an arrangement exists, title of product and risk of loss are transferred to the customer, the price is fixed and determinable, and collectability is reasonably assured.

Sales of ethanol, distillers grains, corn oil and other commodities by our marketing business are recognized when title of product and risk of loss are transferred to an external customer. Revenues related to third-party marketing are presented on a gross basis when we take title of the product and assumes risk of loss. Unearned revenue is recorded for goods in transit when we have received payment but the title has not yet been transferred to the customer. Revenues for receiving, storing, transferring and transporting ethanol and other fuels are recognized when the product is delivered to the customer.

We routinely enter into fixed-price, physical-delivery energy commodity purchase and sale agreements. At times, we settle these transactions by transferring our obligation to another counterparty rather than delivering the physical commodity. These transactions are reported net as a component of revenue. Revenues also include realized gains and losses on related derivative financial instruments, ineffectiveness on cash flow hedges and reclassifications of realized gains and losses on effective cash flow hedges from accumulated other comprehensive income or loss.

Sales of agricultural commodities, including cattle, are recognized when title of product and risk of loss are transferred to the customer, which depends on the terms of the agreement. The sales terms provide passage of title when shipment is made or the commodity is delivered and the customer has agreed to final weights, grades and settlement price. Revenues related to grain merchandising are presented gross and include shipping and handling, which is also a component of cost of goods sold. Revenue from grain storage is recognized when services are rendered.

A substantial portion of our partnership revenues are derived from fixed-fee commercial agreements for storage, terminal or transportation services. The partnership recognizes revenues when there is evidence an arrangement exists; risk of loss and title transfer to the customer; the price is fixed or determinable; and collectability is reasonably ensured. Revenues from base storage, terminal or transportation services are recognized once these services are performed, which occurs when the product is delivered to the customer.

Intercompany revenues are eliminated on a consolidated basis for reporting purposes.

#### Depreciation of Property and Equipment

Property and equipment are stated at cost less accumulated depreciation. Depreciation on our ethanol production and grain storage facilities, railroad tracks, computer equipment and software, office furniture and equipment, vehicles, and other fixed assets is provided using the straight-line method over the estimated useful life of the asset, which currently ranges from 3 to 40 years.

Land improvements are capitalized and depreciated. Expenditures for property betterments and renewals are capitalized. Costs of repairs and maintenance are charged to expense when incurred.

We periodically evaluate whether events and circumstances have occurred that warrant a revision of the estimated useful life of the asset, which is accounted for prospectively.

#### Impairment of Long-Lived Assets and Goodwill

Our long-lived assets consist of property and equipment. We review long-lived assets for impairment whenever events or changes in circumstances indicate the carrying amount of the asset may not be recoverable. We measure recoverability by comparing the carrying amount of the asset with the estimated undiscounted future cash flows the asset is expected to generate. If the carrying amount of the asset exceeds its estimated future cash flows, we record an impairment charge for the amount in excess of the fair value. No impairment charges have been recorded during the periods presented.

Our goodwill is related to certain acquisitions within our ethanol production and partnership segments. We review goodwill at the individual plant or subsidiary level for impairment at least annually or more frequently whenever events or changes in circumstances indicate that an impairment may have occurred.

We assess the qualitative factors of goodwill to determine whether it is necessary to perform a two-step goodwill impairment test. Under the first step, we compare the estimated fair value of the reporting unit with its carrying value including goodwill. If the estimated fair value is less than the carrying value, we complete a second step to determine the amount of the goodwill impairment that we should record. In the second step, we allocate the reporting unit's fair value to all of its assets and liabilities other than goodwill to determine an implied fair value. We compare the result with the carrying amount and record an impairment charge for the difference.

We estimate the amount and timing of projected cash flows that will be generated by an asset over an extended period of time when we review our long-lived assets and goodwill. Circumstances that may indicate impairment include: a decline in future projected cash flows, a decision to suspend plant operations for an extended period of time, a sustained decline in our market capitalization, a sustained decline in market prices for similar assets or businesses or a significant adverse change in legal or regulatory matters, or business climate. Significant management judgment is required to determine the fair value of

our long-lived assets and goodwill and measure impairment, including projected cash flows. Fair value is determined through various valuation techniques, including discounted cash flow models, sales of comparable properties and third-party independent appraisals. Changes in estimated fair value could result in a write-down of the asset.

#### Derivative Financial Instruments

We use various derivative financial instruments to minimize the adverse effect price changes related to corn, ethanol, cattle and natural gas may have on our operating results. We monitor and manage this exposure as part of our overall risk management policy. These commodities may be hedged to mitigate risk, however, there may be situations when these hedging activities themselves result in losses.

Using derivatives exposes us to credit and market risk. Our exposure to credit risk includes the counterparty's failure to fulfill its performance obligations under the terms of the derivative contract. We minimize this risk by entering into transactions with high quality counterparties, limiting the amount of financial exposure we have with each counterparty and monitoring their financial condition. We manage the risk that the value of the financial instrument is exposed to by a change in commodity prices or interest rates, or market risk, by incorporating parameters to monitor our exposure within our risk management strategy. These parameters limit the types of derivative instruments and strategies we can use and the degree of market risk we can take by using derivative instruments.

We evaluate our physical delivery contracts to determine if they qualify for normal purchase or sale exemptions and are expected to be used or sold over a reasonable period in the normal course of business. Contracts that do not meet the normal purchase or sale criteria are recorded at fair value. Changes in fair value are recorded in operating income unless the contracts qualify for, and we elect, hedge accounting treatment.

Certain qualifying derivatives related to the ethanol production and agribusiness segments are designated as cash flow hedges. We evaluate the derivative instrument to determine its effectiveness prior to entering into cash flow hedges. Ineffectiveness is recognized in current period results, while other unrealized gains and losses are reflected in accumulated other comprehensive income until the gain or loss from the underlying hedged transaction is realized. When it becomes probable a forecasted transaction will not occur, the cash flow hedge treatment is discontinued. These derivative financial instruments are recognized in current assets or other current liabilities at fair value.

At times, we hedge our exposure to changes in inventory value and designate qualifying derivatives as fair value hedges. The carrying amount of the hedged inventory is adjusted in current period results for changes in fair value.



Ineffectiveness is recognized in the current period to the extent the change in fair value of the inventory is not offset by the change in fair value of the derivative.

#### Accounting for Income Taxes

Income taxes are accounted for under the asset and liability method in accordance with GAAP. Deferred tax assets and liabilities are recognized for future tax consequences between existing assets and liabilities and their respective tax basis, and for net operating loss and tax credit carry-forwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to be applied to taxable income in years temporary differences are expected to be recovered or settled. The effect of a tax rate change is recognized in the period that includes the enactment date. The realization of deferred tax assets depends on the generation of future taxable income during the periods in which temporary differences become deductible. Management considers scheduled reversal of deferred tax liabilities, projected future taxable income and tax planning strategies to make this assessment. Management considers the positive and negative evidence to support the need for, or reversal of, a valuation allowance. The weight given to the potential effects of positive and negative evidence is based on the extent it can be objectively verified.

To account for uncertainty in income taxes, we gauge the likelihood of a tax position based on the technical merits of the position, perform a subsequent measurement related to the maximum benefit and degree of likelihood, and determine the benefit to be recognized in the financial statements, if any.

#### Recently Issued Accounting Pronouncements

For information related to recent accounting pronouncements, see Note 2 – Summary of Significant Accounting Policies included as part of the notes to consolidated financial statements in this report.

### Off-Balance Sheet Arrangements

We do not have any off-balance sheet arrangements.

### Components of Revenues and Expenses

**Revenues.** For our ethanol production segment, our revenues are derived primarily from the sale of ethanol, distillers grains and corn oil. For our agribusiness segment, the sale of grain and cattle are our primary sources of revenue. For our marketing and distribution segment, sales of ethanol, distillers grains and corn oil that we market for our ethanol plants, sales of ethanol we market for a third-party and sales of other commodities purchased in the open market represent our primary sources of revenue. Revenues include net gains or losses from derivatives related to the products sold. For our partnership segment, our revenues consist primarily of fees for receiving, storing, transferring and transporting ethanol and other fuels.

**Cost of Goods Sold.** For our ethanol production segment, cost of goods sold includes direct labor, materials and plant overhead costs. Direct labor includes compensation and related benefits of non-management personnel involved in ethanol plant operations. Plant overhead consists primarily of plant utilities and outbound freight charges. Corn is the most significant raw material cost followed by natural gas, which is used to power steam generation in the ethanol production process and dry distillers grains. Cost of goods sold also includes net gains or losses from derivatives related to commodities purchased.

For our agribusiness segment, the cost of grain is the primary component of cost of goods sold. Grain inventories held for sale and forward purchase and sale contracts are valued at market prices when available or other market quotes adjusted for differences, such as transportation, between the exchange-traded market and local markets where the terms of the contracts are based. Changes in the market value of grain inventories, forward purchase and sale contracts, and exchange-traded futures and options contracts are recognized as a component of cost of goods sold. For the cattle feedlot operation, the costs of cattle, feed and veterinary supplies, direct labor and feedlot overhead are accumulated as inventory and included as a component of cost of goods sold when the cattle are sold. Direct labor includes compensation and related benefits of non-management personnel involved in the feedlot operation. Feedlot overhead costs include feedlot utilities, repairs and maintenance and yard expenses.

For our marketing and distribution segment, purchases of ethanol, distillers grains and corn oil is the largest component of cost of goods sold.

**Operations and Maintenance Expense.** For our partnership segment, transportation expense is the primary component of operations and maintenance expense. Transportation expense includes rail car leases, shipping and freight and costs incurred for storing ethanol at destination terminals.

**Selling, General and Administrative Expense.** Selling, general and administrative expenses are recognized at the operating segment and corporate level. These expenses consist of employee salaries, incentives and benefits; office expenses; director fees; and professional fees for accounting, legal, consulting and investor relations services. Personnel costs, which include employee salaries, incentives and benefits, are the largest expenditure. Selling, general and administrative expenses that cannot be allocated to an operating segment are referred to as corporate activities.

**Other Income (Expense).** Other income (expense) includes interest earned, interest expense, equity earnings in nonconsolidated subsidiaries and other non-operating items.

## Results of Operations

### Comparability

The following summarizes various events that affect the comparability of our operating results for the past three years:

June 2013	Atkinson, Nebraska ethanol plant was acquired
June 2013	Archer, Nebraska grain elevator was acquired
November 2013	Fairmont, Minnesota and Wood River, Nebraska ethanol plants were acquired
June 2014	Kismet, Kansas cattle feedlot business was acquired
July 2015	Partnership completed IPO
October 2015	Hopewell, Virginia ethanol plant was acquired
November 2015	Hereford, Texas ethanol plant was acquired
January 2016	Partnership acquired certain storage and transportation assets of the Hereford and Hopewell ethanol plants

The year ended December 31, 2013, includes approximately seven months of operations at our Atkinson plant and a little more than five weeks of operations at our Wood River plant. Our Fairmont plant, which was not operational at the time of its acquisition, began production in early January 2014. The year ended December 31, 2014, includes approximately six months of operations at our Kansas cattle feedlot business. The year ended December 31, 2015, includes approximately two months of operations at our Hereford plant. Our Hopewell plant, which was not operational at the time of its acquisition, resumed ethanol production on February 8, 2016.

### Segment Results

As a result of the IPO, we implemented organizational changes during the third quarter of 2015. We now report the financial and operating performance for the following four operating segments: (1) ethanol production, which includes the production of ethanol, distillers grains and corn oil, (2) agribusiness, which includes grain handling and storage and cattle feedlot operations, (3) marketing and distribution, which includes marketing and merchant trading for company-produced and third-party ethanol, distillers grains, corn oil and other commodities and (4) partnership, which includes fuel storage and transportation services. Prior periods have been reclassified to conform to the revised segment presentation.

When transferring assets between entities under common control under GAAP, the entity receiving the net assets initially recognizes the carrying amounts of the assets and liabilities at the date of transfer. The transferee's prior period financial statements are restated for all periods its operations were part of the parent's consolidated financial statements. On July 1, 2015, the partnership received ethanol storage and railcar assets and liabilities in a transfer between entities under common control. The transferred assets and liabilities are recognized at our historical cost and reflected retroactively in the segment information of the consolidated financial statements presented in this Form 10-K. The partnership's assets were previously included in the ethanol production and marketing and distribution segments. Expenses related to the ethanol storage and railcar assets, such as depreciation, amortization and railcar lease expenses, are also reflected retroactively in the following segment information. There are no revenues related to the operation of these ethanol storage and railcar assets in the partnership segment prior July 1, 2015, the date the related commercial agreements with Green Plains Trade became effective.

Corporate activities includes selling, general and administrative expenses, consisting primarily of employee compensation, professional fees and overhead costs not directly related to a specific operating segment. When we evaluate segment performance, we review the following operating segment information as well as earnings before interest, income taxes, depreciation and amortization, or EBITDA.

During the normal course of business, our operating segments do business with each other. For example, our ethanol production segment sells ethanol to our marketing and distribution segment, our agribusiness segment sells grain to our ethanol production segment and our partnership segment provides fuel storage and transportation services for our marketing and distribution segment. These intersegment activities are treated like third-party transactions and recorded at market values. Consequently, these transactions affect segment performance; however, they do not impact our consolidated results since the revenues and corresponding costs are eliminated.

The selected operating segment financial information are as follows (in thousands):

	Year Ended December 31,		
	2015	2014	2013
Revenues:			
Ethanol production:			
Revenues from external customers (1)	\$ 196,443	\$ (51,424)	\$ 128,395
Intersegment revenues	1,549,884	2,286,452	1,972,550
Total segment revenues	1,746,327	2,235,028	2,100,945
Agribusiness:			
Revenues from external customers (1)	249,834	100,436	51,883
Intersegment revenues	1,131,466	1,208,120	761,835
Total segment revenues	1,381,300	1,308,556	813,718
Marketing and distribution:			
Revenues from external customers (1)	2,510,924	3,178,115	2,853,554
Intersegment revenues	120,687	171,372	33,932
Total segment revenues	2,631,611	3,349,487	2,887,486
Partnership:			
Revenues from external customers	8,388	8,484	7,179
Intersegment revenues	42,549	4,359	3,853
Total segment revenues	50,937	12,843	11,032
Revenues including intersegment activity	5,810,175	6,905,914	5,813,181
Intersegment eliminations	(2,844,586)	(3,670,303)	(2,772,170)
Revenues as reported	\$ 2,965,589	\$ 3,235,611	\$ 3,041,011

(1) Revenues from external customers include realized gains and losses from derivative financial instruments.

Cost of goods sold:			
Ethanol production	\$ 1,626,327	\$ 1,879,547	\$ 1,926,098
Agribusiness	1,362,001	1,293,274	807,459
Marketing and distribution	2,588,738	3,281,191	2,840,840
Partnership	-	-	-
Intersegment eliminations	(2,847,467)	(3,670,967)	(2,765,583)

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\$ 2,729,599    \$ 2,783,045    \$ 2,808,814

Operating income (loss):

Ethanol production	\$ 40,568	\$ 281,332	\$ 113,645
Agribusiness	10,206	8,497	3,324
Marketing and distribution	25,560	48,460	38,192
Partnership	13,263	(19,975)	(11,285)
Intersegment eliminations	2,960	666	(6,588)
Corporate activities	(31,480)	(32,706)	(29,437)
	\$ 61,077	\$ 286,274	\$ 107,851

Total assets by segment are as follows (in thousands):

	Year Ended December 31,	
	2015	2014
Total assets (1):		
Ethanol production	\$ 1,017,584	\$ 991,260
Agribusiness	300,364	234,626
Marketing and distribution	230,651	259,246
Partnership	75,203	76,762
Corporate assets	316,389	282,628
Intersegment eliminations	(10,863)	(23,460)
	\$ 1,929,328	\$ 1,821,062

(1) Asset balances by segment exclude intercompany payable and receivable balances.

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

### Consolidated Results

Consolidated revenues decreased by \$270.0 million in 2015 compared with 2014. Revenues from sales of ethanol and distillers grains decreased by \$494.8 million and \$57.0 million, respectively, partially offset by an increase in revenues from the sales of cattle, due to the acquisition of the cattle feedlot operation in June 2014, and other grains of \$189.8 million and \$65.5 million, respectively. Ethanol and distillers grains revenues were affected by a decrease in average realized prices. Grain revenues were impacted by an increase in merchant trading activities. Operating income decreased by \$225.2 million in 2015 compared with 2014 as a result of the factors discussed above, partially offset by a decrease in cost of goods sold, due to lower corn and other commodity prices. Interest expense increased by \$0.5 million compared with 2014 due to higher average debt balances outstanding, partially offset by lower average borrowing costs. Income tax expense was \$6.2 million in 2015 compared with \$90.9 million in 2014.

The following discussion provides greater detail about our year-to-date segment performance.

### Ethanol Production Segment



Key operating data for our ethanol production segment is as follows:

	Year Ended December 31,	
	2015	2014
Ethanol sold (thousands of gallons)	947,557	966,176
Distillers grains sold (thousands of equivalent dried tons)	2,540	2,670
Corn oil sold (thousands of pounds)	244,047	234,632
Corn consumed (thousands of bushels)	332,417	343,982

Revenues in the ethanol production segment decreased by \$488.7 million in 2015 compared with 2014 primarily due to lower average ethanol and distillers grains prices, as well as lower volumes produced and sold. The average price realized for ethanol was 32% lower in 2015 compared with 2014. The ethanol production segment produced 947.6 mmg of ethanol, representing approximately 91% of daily average production capacity, during 2015. During 2015, we sold 244.0 million pounds of corn oil compared with 234.6 million pounds in 2014. The average price realized for corn oil was 21% lower in 2015 compared with 2014.

Cost of goods sold in the ethanol production segment decreased by \$253.2 million for 2015 compared with 2014. The decrease is due to a decrease in corn consumption of approximately 11.5 million bushels, as well as a 10% decrease in the average cost per bushel during 2015 compared with 2014. As a result of the factors identified above, operating income for the

ethanol production segment decreased by \$240.8 million for 2015 compared with the same period in 2014. Depreciation and amortization expense for the ethanol production segment was \$55.3 million for the year ended December 31, 2015, compared with \$53.1 million during 2014.

#### Agribusiness Segment

Revenues in the agribusiness segment increased by \$72.7 million and operating income increased by \$1.7 million in 2015 compared with 2014. We sold 300.1 million bushels of grain, including 292.5 million bushels to our ethanol production segment in 2015, compared with sales of 298.2 million bushels of grain, including 288.1 million bushels to our ethanol production segment, during 2014. Revenues were impacted by an increase in revenues of \$189.8 million due to the cattle feedlot operation that was acquired during the second quarter of 2014, partially offset by a decrease in average realized prices of grain sold. Operating income increased as a result of higher volumes of grain storage and margins, partially offset by a decrease in cattle margins.

#### Marketing and Distribution Segment

Revenues in our marketing and distribution segment decreased by \$717.9 million in 2015 compared with 2014. The decrease in revenues was primarily due to an \$805.9 million decrease in ethanol and distillers grains revenues, partially offset by an increase in other grain revenues of \$94.4 million. The decrease in ethanol and distillers grains revenues is due to lower average realized prices. Grain revenues were impacted by increased volume activity as well as higher average realized prices. The marketing and distribution segment sold approximately 1.2 billion gallons of ethanol during both 2015 and 2014.

Operating income for the marketing and distribution segment decreased by \$22.9 million in 2015 compared with 2014, primarily due to the decrease in average realized prices and margins for ethanol activity.

#### Partnership Segment

As a result of the IPO on July 1, 2015, we contributed downstream ethanol transportation and storage assets to the partnership. Expenses related to these contributed assets, such as depreciation, amortization and railcar lease expenses, are reflected in the partnership segment. No revenues related to the operation of the ethanol storage and railcar

contributed assets are reflected in this segment for periods prior July 1, 2015, the date the related commercial agreements with Green Plains Trade became effective, which impacts the comparability between periods. Revenues generated by the partnership segment from the new storage and railcar commercial agreements were approximately \$36.9 million for the six months ended December 31, 2015.

Operating income for the partnership segment increased by approximately \$33.2 million due to the increase in revenues above, partially offset by an increase in operations and maintenance expenses of \$2.9 million for 2015, compared with the same period for 2014. The increase was primarily due to increased railcar lease expenses, wages and fuel costs associated with our partnership's trucking company, related to an increase in the number of trucks in service and locations where our partnership's trucking company does business. This was partially offset by a decrease in throughput unloading fees.

#### Intersegment Eliminations

Intersegment eliminations of revenues decreased by \$825.7 million for 2015 compared with 2014 due to the following factors: decreased sales of ethanol from the ethanol production segment to the marketing and distribution segment of \$677.9 million, decreased sales of distillers grains from the ethanol production segment to the marketing and distribution segment of \$61.4 million, decreased corn sales from the agribusiness segment to the ethanol production segment of \$88.2 million and decreased natural gas sales from the marketing and distribution segment to the ethanol production segment of \$34.3 million, partially offset by increased transportation and storage fees paid to the partnership segment by the marketing and distribution segment of \$36.9 million.

Intersegment eliminations of operating income decreased by \$2.3 million for 2015 compared with 2014 due primarily to decreased average margins eliminated during 2015 compared with 2014. Ethanol is sold from the ethanol production segment to the marketing and distribution segment as it is produced and transferred into storage tanks located at each respective plant. The finished product is then sold by the marketing and distribution segment to external customers. Profit is recognized by the ethanol production segment upon sale to the marketing and distribution segment, and is eliminated from consolidated results when the title to the product has been transferred to a third party.

## Corporate Activities

Operating income was impacted by a decrease in operating expenses for corporate activities of \$1.2 million for 2015 compared with 2014, primarily due to a decrease in personnel costs.

## Income Taxes

We recorded income tax expense of \$6.2 million for 2015 compared with \$90.9 million in 2014. The effective tax rate (calculated as the ratio of income tax expense to income before income taxes) was approximately 29.1% for 2015 compared with 36.3% for 2014. The decrease in the effective tax rate was due primarily to the impact of the noncontrolling interest in the partnership on the consolidated financial results. This was partially offset by a change in estimate related to our filing positions in various jurisdictions as well as comparable permanent differences on lower amounts of income before taxes for the 2015 period compared with the 2014 period.

## Noncontrolling Interest

As a result of the IPO, we currently own a 62.5% limited partner interest, a 2.0% general partner interest in the partnership and all of the partnership's incentive distribution rights, with the remaining 35.5% limited partner interest owned by public common unitholders. We consolidate the financial results of the partnership, and record a noncontrolling interest for the portion of the partnership's net income attributable to the economic interest in the partnership held by the public common unitholders. Noncontrolling interest on the consolidated balance sheets includes the portion of net assets of the partnership attributable to the public common unitholders.

## Year Ended December 31, 2014 Compared with the Year Ended December 31, 2013

## Consolidated Results

Consolidated revenues increased by \$194.6 million in 2014 compared with 2013. Revenues from sales of ethanol, distillers grain and other grains increased by \$23.3 million, \$43.3 million and \$82.5 million, respectively. Ethanol

revenues were affected by an increase in volumes, offset by a decrease in revenue per gallon. Distillers grains revenues were affected by an increase in volumes produced and merchant trading activities, offset partially by a decrease in average realized prices. Grain revenues were impacted by an increase in merchant trading activities. Operating income increased by \$178.4 million in 2014 compared with 2013 as a result of the increase in revenues, as well as improved margins for ethanol production, partially offset by an increase in selling, general and administrative expenses of \$23.4 million. Selling, general and administrative expenses were higher in 2014 compared with 2013 due most significantly to an increase in personnel costs and the expanded scope of operations following the acquisitions of the Atkinson, Fairmont and Wood River ethanol plants in the second and fourth quarters of 2013. Interest expense increased by \$6.6 million compared with 2013 due to higher average debt balances outstanding, as well as higher average borrowing costs. Income tax expense was \$90.9 million in 2014 compared with \$28.9 million in 2013.

The following discussion provides greater detail about our year-to-date segment performance.

#### Ethanol Production Segment

Key operating data for our ethanol production segment is as follows:

	Year Ended December 31,	
	2014	2013
Ethanol sold (thousands of gallons)	966,176	734,483
Distillers grains sold (thousands of equivalent dried tons)	2,670	2,038
Corn oil sold (thousands of pounds)	234,632	170,440
Corn consumed (thousands of bushels)	343,892	257,663

Revenues in the ethanol production segment increased by \$134.1 million in 2014 compared with 2013 primarily due to higher volumes produced and sold, partially offset by lower average ethanol and distillers grains prices. The ethanol production segment produced 966.2 mmg of ethanol, representing approximately 95.6% of daily average production capacity, during 2014. During 2014, we sold 234.6 million pounds of corn oil compared with 170.4 million pounds in 2013. The average price realized for corn oil was 15% lower in 2014 compared with 2013. Revenues in 2014 included a full year of production from our Atkinson, Fairmont and Wood River plants, which were acquired in the second and fourth quarters of 2013 and contributed an additional combined 214.0 mmg of ethanol production, 54.3 million pounds of corn oil production and \$455.9 million in revenue.

Cost of goods sold in the ethanol production segment decreased by \$46.6 million for 2014 compared with 2013. Corn consumption increased by 86.2 million bushels, offset by a 33% decrease in the average cost per bushel during 2014 compared with 2013. As a result of the factors identified above, operating income for the ethanol production segment increased by \$167.7 million for 2014 compared with the same period in 2013.

#### Agribusiness Segment

Revenues in the agribusiness segment increased by \$494.8 million and operating income increased by \$5.2 million in 2014 compared with 2013. We sold 298.2 million bushels of grain, including 288.1 million to our ethanol production segment in 2014, compared with sales of 142.8 million bushels of grain, including 137.3 million bushels to our ethanol production segment, during 2013. The increase in grain sold during 2014 compared with 2013 is due to an increase in the number of ethanol plants in our ethanol production segment to which the agribusiness segment supplied corn, including our ethanol plants in Atkinson, Fairmont and Wood River, which were acquired in the second and fourth quarters of 2013. Additionally, \$29.4 million of the increase in revenues is due to the cattle feedlot operation that was acquired during the second quarter of 2014.

#### Marketing and Distribution Segment

Revenues in our marketing and distribution segment increased by \$462.0 million in 2014 compared with 2013. The increase in revenues was primarily due to a \$315.9 million increase in ethanol, distillers grain and other grain revenues due to additional volumes produced by our recently acquired ethanol plants and an increase in merchant trading of distillers grains and other grains. In addition, revenues from the sale of natural gas to our ethanol production segment increased by \$120.7 million. The marketing and distribution segment sold approximately 1.2 billion and 1.0 billion gallons of ethanol during 2014 and 2013, respectively.

Operating income for the marketing and distribution segment increased by \$10.3 million in 2014 compared with 2013, primarily due to increased merchant trading activities for ethanol, distillers grain and other grains, partially offset by reduced crude oil transportation activities.

#### Partnership Segment

Revenues generated by trucking and terminal services increased \$1.8 million year ended December 31, 2014, compared with the same period in 2013, due to increased non-affiliate throughput revenues across the terminal facilities.

Operating income for the partnership segment decreased by \$8.7 million due to an increase in operations and maintenance expenses of \$8.6 million for the year ended December 31, 2014, compared with the same period in 2013. The increase in operations and maintenance expense was primarily due to increased railcar lease expenses.

#### Intersegment Eliminations

Intersegment eliminations of revenues increased by \$898.1 million for 2014 compared with 2013 due to the following factors: increased corn sales from the agribusiness segment to the ethanol production segment of \$453.5 million, increased natural gas sales from the marketing and distribution segment to the ethanol production segment of \$120.7 million, and increased sales of ethanol from the ethanol production segment to the marketing and distribution segment of \$319.0 million, which is primarily due to the ethanol plants acquired in the second and fourth quarters of 2013.

Intersegment eliminations of operating income decreased by \$7.3 million for 2014 compared with 2013 due primarily to reduced quantities of ethanol in transit to customers and decreased average margins eliminated. Beginning in October, 2013, ethanol is sold from the ethanol production segment to the marketing and distribution segment as it is produced and transferred into storage tanks located at each respective plant. The finished product is then sold by the marketing and

distribution segment to external customers. Profit is recognized by the ethanol production segment upon sale to the marketing and distribution segment, but is eliminated from consolidated results until title to the product has been transferred to a third party. Ethanol quantities held as inventory by the marketing and distribution segment declined during 2014 and the average margin per gallon realized by the ethanol production segment decreased, resulting in a reduction in deferred intersegment profits during 2014. This was partially offset by increased intersegment profits eliminated for corn oil and distillers grains in transit to customers at the end of 2014 which will be recognized in future periods.

### Corporate Activities

Operating income was impacted by an increase in operating expenses for corporate activities of \$3.3 million for 2014 compared with 2013, primarily due to an increase in personnel costs.

### Income Taxes

We recorded income tax expense of \$90.9 million for 2014 compared with \$28.9 million in 2013. The effective tax rate (calculated as the ratio of income tax expense to income before income taxes) was approximately 36.3% for 2014 compared with 40.0% for 2013. The annual effective tax rate was favorably impacted primarily by an income tax deduction for qualified production activities. The annual effective tax rate for 2013 reflects a change in estimate related to nondeductible compensation expense and an increase in the accrual for uncertain tax positions partially offset by an increase in tax benefits.

### Liquidity and Capital Resources

Our principal sources of liquidity include cash generated from operating activities and bank credit facilities. We fund our operating expenses and service debt primarily with operating cash flows. Capital resources for maintenance and growth expenditures are funded by a variety of sources, including cash generated from operating activities, borrowings under bank credit facilities, or issuance of senior unsecured notes or equity. Our ability to access capital markets for debt under reasonable terms depends on our financial condition, credit ratings and market conditions. We believe that our ability to obtain financing at reasonable rates and history of consistent cash flow from operating activities provide a solid foundation to meet our future liquidity and capital resource requirements.



On December 31, 2015, we had \$384.9 million in cash and equivalents, excluding restricted cash, consisting of \$273.3 million held at our parent company and the remainder at our subsidiaries. We also had \$248.0 million available under our revolving credit agreements, some of which were subject to restrictions or other lending conditions. Funds held by our subsidiaries are generally required for their ongoing operational needs and restricted from distribution. At December 31, 2015, our subsidiaries had approximately \$751.0 million of net assets that were not available to us in the form of dividends, loans or advances due to restrictions contained in their credit facilities.

In conjunction with the IPO on July 1, 2015, the partnership received net proceeds of \$157.5 million, of which \$155.3 million was paid to us as a distribution. In addition, the partnership entered into a new \$100.0 million revolving credit facility to fund working capital, acquisitions, distributions, capital expenditures and other general partnership purposes. The company also recognized an income tax gain on assets contributed to the partnership which resulted in higher cash outflows for estimated tax payments during 2015.

We incurred capital expenditures of \$65.6 million in 2015 for various projects, including expansion projects of approximately \$28.8 million for ethanol production capacity and \$10.4 million for grain storage capacity. The current budget for capital spending for 2016 is approximately \$75.0 million, which is subject to review prior to the initiation of any projects. The budget includes additional expenditures for the expansion project for ethanol production capacity, as well as expenditures for various other projects, and is expected to be financed with available borrowings under our credit facilities and cash provided by operating activities.

Net cash provided by operating activities was \$10.2 million in 2015 compared with \$221.6 million in 2014. Operating activities were affected by decreased operating profits and an increase in working capital for 2015, primarily consisting of an increase in inventories and a decrease in accrued liabilities, partially offset by a decrease in accounts receivable. In 2015, we had net income of \$15.2 million compared with \$159.5 million in 2014. Net cash used by investing activities was \$183.2 million in 2015, due primarily to capital expenditures at our ethanol plants, as well as the acquisitions of the Hereford and Hopewell ethanol plants. Net cash provided by financing activities was \$132.3 million in 2015 primarily due to the proceeds received from the IPO of the partnership. Additionally, Green Plains Trade, Green Plains Cattle and Green Plains Grain use revolving credit facilities to finance working capital requirements. We frequently draw from and repay these facilities which

results in significant cash movements reflected on a gross basis within financing activities as proceeds from and payments on short-term borrowings.

Our business is highly sensitive to the price of commodities, particularly for corn, ethanol, distillers grains, corn oil and natural gas. We use derivative financial instruments to reduce the market risk associated with fluctuations in commodity prices. Sudden changes in commodity prices may require cash deposits with brokers for margin calls or significant liquidity with little advanced notice to meet margin calls, depending on our open derivative positions. On December 31, 2015, we had \$7.7 million in margin deposits for broker margin requirements. We continuously monitor our exposure to margin calls and believe we will continue to maintain adequate liquidity to cover margin calls from our operating results and borrowings.

We were in compliance with our debt covenants at December 31, 2015. Based on our forecasts and the current margin environment, we believe we will maintain compliance at each of our subsidiaries for the next twelve months or have sufficient liquidity available on a consolidated basis to resolve noncompliance. We cannot provide assurance that actual results will approximate our forecasts or that we will inject the necessary capital into a subsidiary to maintain compliance with its respective covenants. In the event a subsidiary is unable to comply with its debt covenants, the subsidiary's lenders may determine that an event of default has occurred, and following notice, the lenders may terminate the commitment and declare the unpaid balance due and payable.

In August 2013, our board of directors initiated a quarterly cash dividend. We have paid a quarterly cash dividend since this initial authorization and anticipate declaring a cash dividend in future quarters on a regular basis. In August 2015, our board of directors declared a quarterly cash dividend of \$0.12 per share. The cash dividend represents a 50% increase from the previous dividend and the second annual increase in the cash dividend paid to shareholders. Future declarations of dividends, however, are subject to board approval and may be adjusted as our cash position, business needs or market conditions change. On February 10, 2016, our board of directors declared a quarterly cash dividend of \$0.12 per share. The dividend is payable on March 18, 2016, to shareholders of record at the close of business on February 26, 2016.

For each calendar quarter commencing with the quarter ended September 30, 2015, the partnership agreement requires us to distribute all available cash, as defined, to our partners within 45 days after the end of each calendar quarter. Available cash generally means all cash and cash equivalents on hand at the end of that quarter less cash reserves established by our general partner plus all or any portion of the cash on hand resulting from working capital borrowings made subsequent to the end of that quarter. On January 21, 2016, the board of directors of the general partner of the partnership declared a cash distribution of \$0.4025 per unit on outstanding common and subordinated units. The distribution is payable on February 12, 2016, to unitholders of record at the close of business on February 5, 2016.

In August 2014, we announced a share repurchase program of up to \$100 million of our common stock. Under the program, we may repurchase shares in open market transactions, privately negotiated transactions, accelerated share buyback programs, tender offers or by other means. The timing and amount of repurchase transactions are determined by our management based on market conditions, share price, legal requirements and other factors. The program may be suspended, modified or discontinued at any time without prior notice. We repurchased 191,700 shares of common stock for approximately \$4.0 million during the third quarter of 2015.

We believe we have sufficient working capital for our existing operations. A sustained period of unprofitable operations, however, may strain our liquidity making it difficult to maintain compliance with our financing arrangements. We may sell additional equity or borrow capital to improve or preserve our liquidity, expand our business or build additional or acquire existing businesses. We cannot provide assurance that we will be able to secure funding necessary for additional working capital or these projects at reasonable terms, if at all.

#### Debt

See Note 11 – Debt included as part of the notes to consolidated financial statements for more information about our debt.

#### Ethanol Production Segment

Green Plains Processing amended its senior secured credit facility during the second quarter of 2015 to increase the outstanding borrowings by \$120 million, bringing its total commitment to \$345 million. The proceeds were used to repay existing term loans and revolving term loans with a combined outstanding balance of \$117.3 million. The term loan is secured by twelve of our ethanol production facilities and matures in June of 2020. At December 31, 2015, \$315.3 million

was outstanding and our interest rate was 6.5%. Our scheduled principal payments are \$0.9 million each quarter. Available free cash flow may be distributed to us after a quarterly free cash flow payment is made to the lenders, subject to certain limitations, as defined in the loan agreement.

We also have small equipment financing loans, capital leases on equipment or facilities, and other forms of debt financing.

#### Agribusiness Segment

Green Plains Grain has a \$125.0 million senior secured asset-based revolving credit facility to finance working capital up to the maximum commitment based on eligible collateral. This facility can be increased by up to \$75.0 million with agent approval and up to \$50.0 million for seasonal borrowings. Total commitments outstanding under the facility cannot exceed \$250.0 million. The facility matures in August of 2016. At December 31, 2015, \$77.0 million was outstanding on the facility and our interest rate was 3.9%.

Green Plains Cattle has a \$100.0 million senior secured asset-based revolving credit facility to finance working capital up to the maximum commitment based on eligible collateral. The facility matures in October of 2017. At December 31, 2015, \$69.7 million was outstanding on the facility and our interest rate was 3.2%.

#### Marketing and Distribution Segment

Green Plains Trade has a \$150.0 million senior secured asset-based revolving credit facility to finance working capital up to the maximum commitment based on eligible collateral. The facility matures in November of 2019. At December 31, 2015, \$80.2 million was outstanding on the facility and our interest rate was 2.9%.

#### Partnership Segment

Green Plains Operating Company has a \$100.0 million revolving credit facility to fund working capital, acquisitions, distributions, capital expenditures and other general partnership purposes. This facility can be increased by up to \$50.0

million without the consent of the lenders. The facility matures in July of 2020. We had no outstanding balance on this credit facility at December 31, 2015. Effective January 1, 2016, the partnership acquired the storage and transportation assets of the Hereford, Texas and Hopewell, Virginia ethanol production facilities from us for an initial consideration of \$62.5 million. The partnership borrowed \$48.0 million on the revolving credit facility and used cash on hand to fund the purchase of the assets and the interest rate was 2.18%.

#### Corporate Activities

In September 2013, we issued \$120.0 million of 3.25% convertible senior notes due in 2018, which are senior, unsecured obligations with interest payable on April 1 and October 1 of each year. Prior to April 1, 2018, the notes are not convertible unless certain conditions are satisfied. The conversion rate is subject to adjustment when the quarterly cash dividend exceeds \$0.04 per share. The conversion rate was recently adjusted as of December 31, 2015 to 48.6097 shares of common stock per \$1,000 of principal, which is equal to a conversion price of approximately \$20.57 per share. We intend to convert the notes with cash for the principal, and cash or common stock for the conversion premium.

## Contractual Obligations

Contractual obligations as of December 31, 2015 were as follows (in thousands):

Contractual Obligations	Payments Due By Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Long-term and short-term debt obligations (1)	\$ 689,589	\$ 231,435	\$ 129,111	\$ 306,976	\$ 22,067
Interest and fees on debt obligations (2)	126,448	33,624	50,137	31,256	11,431
Operating lease obligations (3)	109,172	31,098	38,046	23,025	17,003
Deferred tax liabilities	81,797	-	-	-	81,797
Other	6,655	1,616	736	2,659	1,644
Purchase obligations					
Forward grain purchase contracts (4)	224,069	214,234	4,251	2,667	2,917
Other commodity purchase contracts (5)	98,220	98,220	-	-	-
Other	130	55	70	5	-
Total contractual obligations	\$ 1,336,080	\$ 610,282	\$ 222,351	\$ 366,588	\$ 136,859

(1) Includes the current portion of long-term debt and excludes the effect of any debt discounts.

(2) Interest amounts are calculated over the terms of the loans using current interest rates, assuming scheduled principle and interest amounts are paid pursuant to the debt agreements. Includes administrative and/or commitment fees on debt obligations.

(3) Operating lease costs are primarily for railcars and office space.

(4) Purchase contracts represent index-priced and fixed-price contracts. Index purchase contracts are valued at current year-end prices.

(5) Includes fixed-price ethanol, dried distillers grains and natural gas purchase contracts.

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

We use various financial instruments to manage and reduce our exposure to various market risks, including changes in commodity prices and interest rates. We conduct all of our business in U.S. dollars and are not currently exposed to foreign currency risk.

##### Interest Rate Risk

We are exposed to interest rate risk through our loans which bear interest at variable rates. Interest rates on our variable-rate debt are based on the market rate for the lender's prime rate or LIBOR. A 10% increase in interest rates would affect our interest cost by approximately \$2.8 million per year. At December 31, 2015, we had \$675.0 million in debt, \$542.2 million of which had variable interest rates.

See Note 11 – Debt included as part of the notes to consolidated financial statements for more information about our debt.

##### Commodity Price Risk

Our business is highly sensitive to commodity prices risk, particularly for ethanol, distillers grains, corn oil, corn and natural gas. Corn prices are affected by weather conditions, yield, changes in domestic and global supply and demand, and government programs and policies. Natural gas prices are influenced by severe weather in the summer and winter and hurricanes in the spring, summer and fall. Other factors include North American exploration and production, and the amount of natural gas in underground storage during injection and withdrawal seasons. Ethanol prices are sensitive to world crude oil supply and demand, the price of crude oil, gasoline and corn, the price of substitute fuels, refining capacity and utilization, government regulation and consumer demand for alternative fuels. Distillers grains prices are impacted by livestock numbers on feed, prices for feed alternatives and supply, which is associated with ethanol plant production.

To reduce the risk associated with fluctuations in the price of corn, natural gas, ethanol, distillers grains and corn oil, at times we use forward fixed-price physical contracts and derivative financial instruments, such as futures and options executed on the Chicago Board of Trade and the New York Mercantile Exchange. We focus on locking in favorable operating margins, when available, using a model that continually monitors market prices for corn, natural gas and other inputs relative to the price for ethanol and distillers grains at each of our production facilities. We create offsetting positions using a combination

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of forward fixed-price purchases, sales contracts and derivative financial instruments. As a result, we frequently have gains on derivative financial instruments that are offset by losses on forward fixed-price physical contracts or inventories and vice versa.

#### Ethanol Production Segment

In the ethanol production segment, net gains and losses from settled derivative instruments are offset by physical commodity purchases or sales to achieve the intended operating margins. Our results are impacted when there is a mismatch of gains or losses associated with the derivative instrument during a reporting period when the physical commodity purchases or sale has not yet occurred. For the year ended December 31, 2015, revenues included net losses of \$4.6 million and cost of goods sold included net gains of \$19.0 million associated with derivative instruments.

Our exposure to market risk, which includes the impact of our risk management activities resulting from our fixed-price purchase and sale contracts and derivatives, is based on the estimated net income effect resulting from a hypothetical 10% change in price for the next 12 months starting on December 31, 2015, are as follows (in thousands):

Commodity	Estimated Total Volume Requirements for the Next 12 Months (1)	Unit of Measure	Net Income Effect of Approximate 10% Change in Price
Ethanol	1,215,000	Gallons	\$ 106,861
Corn	430,000	Bushels	\$ 101,845
Distillers grains	3,400	Tons (2)	\$ 19,651
Corn Oil	275,000	Pounds	\$ 2,873
Natural gas	33,300	MMBTU (3)	\$ 4,609

(1) Estimated volumes reflect anticipated expansion of production capacity at our ethanol plants and assumes production at full capacity.

- (2) Distillers grains quantities are stated on an equivalent dried ton basis.
- (3) Millions of British Thermal Units

#### Agribusiness Segment

In the agribusiness segment, our inventories, physical purchase and sale contracts and derivatives are marked to market. To reduce commodity price risk caused by market fluctuations for purchase and sale commitments of grain and cattle, and grain held in inventory, we enter into exchange-traded futures and options contracts that serve as economic hedges.

The market value of exchange-traded futures and options used for hedging are highly correlated with the underlying market value of grain inventories and related purchase and sale contracts for grain and cattle. The less correlated portion of inventory and purchase and sale contract market values, known as basis, is much less volatile than the overall market value of exchange-traded futures and tends to follow historical patterns. We manage this less volatile risk by constantly monitoring our position relative to the price changes in the market. Inventory values are affected by the month-to-month spread in the futures markets. These spreads are also less volatile than overall market value of our inventory and tend to follow historical patterns, but cannot be mitigated directly. Our accounting policy for futures and options, as well as the underlying inventory held for sale and purchase and sale contracts, is to reflect their current market values and include gains and losses in the consolidated statement of operations.

Our daily net commodity position consists of inventories related to purchase and sale contracts and exchange-traded contracts. The fair value of our position was approximately \$2.0 million for grain and \$13.9 million for cattle at December 31, 2015. Our market risk at that date, based on the estimated net income effect resulting from a hypothetical 10% change in price, was approximately \$0.1 million for grain and \$0.9 million for cattle.

#### Item 8. Financial Statements and Supplementary Data.

The required consolidated financial statements and accompanying notes are listed in Part IV, Item 15.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures designed to ensure information that must be disclosed in the reports we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, as appropriate, to allow timely decisions regarding required financial disclosure.

Under the supervision of and participation of our chief executive officer and chief financial officer, management carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2015, as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act and concluded that our disclosure controls and procedures were effective.

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining effective internal control over financial reporting, as defined in Exchange Act Rule 13a-15(f). Our internal control system is designed to provide reasonable assurance regarding the reliability of financial reporting and preparation of financial statements in accordance with GAAP.

Under the supervision and participation of our chief executive officer and chief financial officer, management assessed the design and operating effectiveness of our internal control over financial reporting as of December 31, 2015, based on the Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. During the fourth quarter of 2015, we acquired two ethanol plants, one located in Hereford, Texas on November 12, 2015, and one located in Hopewell, Virginia on October 23, 2015. Our

management excluded the acquired ethanol plants from its assessment of the effectiveness of our internal control over financial reporting as of December 31, 2015. The acquired ethanol plants represent approximately 6% of our total assets at December 31, 2015, and they contributed approximately 1% of our total revenues in 2015.

Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2015. KMPG LLP, an independent registered public accounting firm, has audited and issued a report on our internal control over financial reporting as of December 31, 2015, which is included in this report.

#### Changes in Internal Control over Financial Reporting

Management is responsible for establishing and maintaining effective internal control over financial reporting to provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our consolidated financial statements for external purposes in accordance with U.S. generally accepted accounting principles. There were no material changes in our internal control over financial reporting that occurred during the period covered by this report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Green Plains Inc. and subsidiaries:

We have audited Green Plains Inc. and subsidiaries' (the company) internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). 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, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the company's internal control over financial reporting based on our audit.

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

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.

In our opinion, the company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

The company acquired two ethanol plants, one located in Hereford, Texas on November 12, 2015 and one located in Hopewell, Virginia on October 23, 2015 (collectively referred to as the ethanol plants), and management excluded from its assessment of the effectiveness of the company's internal control over financial reporting as of December 31,

2015, internal control over financial reporting associated with the ethanol plants which represent approximately 6% of the company's consolidated total assets and approximately 1% of the company's consolidated total revenues as of and for the year ended December 31, 2015. Our audit of internal control over financial reporting of the company also excluded an evaluation of the internal control over financial reporting of the ethanol plants.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the company as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2015, and our report dated February 18, 2016 expressed an unqualified opinion on those consolidated financial statements.

/s/ KPMG LLP

Omaha, Nebraska  
February 18, 2016

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Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information in our Proxy Statement for the 2016 Annual Meeting of Stockholders under “Information about the Board of Directors and Corporate Governance,” “Proposal 1 – Election of Directors,” “Executive Officers,” and “Section 16(a) Beneficial Ownership Reporting Compliance” is incorporated by reference.

We have adopted a code of ethics that applies to our chief executive officer and all senior financial officers, including the chief financial officer, principal accounting officer, senior financial officers and other persons performing similar functions. Our code of ethics is available on our website at [www.gpreinc.com](http://www.gpreinc.com) in the “Investors – Corporate Governance” section. Amendments or waivers are disclosed within five business days following its adoption.

Item 11. Executive Compensation.

Information included in the Proxy Statement under “Information about the Board of Directors and Corporate Governance,” “Director Compensation” and “Executive Compensation” is incorporated by reference.

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

Information in the Proxy Statement under “Principal Shareholders,” “Equity Compensation Plans” and “Executive Compensation” is incorporated by reference.

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

Information in the Proxy Statement under “Information about the Board of Directors and Corporate Governance” and “Certain Relationships and Related Party Transactions” is incorporated by reference.

Item 14. Principal Accounting Fees and Services.

Information in the Proxy Statement under “Independent Public Accountants” is incorporated by reference.



PART IV

Item 15. Exhibits, Financial Statement Schedules.

(1) Financial Statements. The following consolidated financial statements and notes are filed as part of this annual report on Form 10-K.

Page

(2) Financial Statement Schedules. The following condensed financial information and notes are filed as part of this annual report on Form 10-K.

Page

All other schedules have been omitted because they are not applicable or the required information is included in the consolidated financial statements or notes thereto.

(3) Exhibits. The following exhibits are incorporated by reference, filed or furnished as part of this annual report on Form 10-K.

Exhibit Index

Exhibit

No.	Description of Exhibit
2.1	Agreement and Plan of Merger among the company, GPMS, Inc., Global Ethanol, LLC and Global Ethanol, Inc. dated September 28, 2010 (Incorporated by reference to Exhibit 2.1 to the company's Current Report on Form 8-K dated October 22, 2010)
2.2(a)	

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- Asset Purchase Agreement among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Renewable Energy, Inc. and The Andersons, Inc. dated October 26, 2012 (Incorporated by reference to Exhibit 2.1 of the company's Current Report on Form 8-K filed October 29, 2012)
- 2.2(b) First Amendment to Asset Purchase Agreement among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Renewable Energy, Inc. and The Andersons, Inc. effective as of November 30, 2012 (Incorporated by reference to Exhibit 2.2 of the company's Current Report on Form 8-K filed December 6, 2012)
- 2.3(a) Asset Purchase Agreement by and among Ethanol Holding Company, LLC, Green Plains Renewable Energy, Inc., Green Plains Wood River LLC and Green Plains Fairmont LLC dated November 1, 2013 (Incorporated by reference to Exhibit 2.1 of the company's Current Report on Form 8-K filed November 25, 2013)
- 2.3(b) Amendment to Asset Purchase Agreement by and among Ethanol Holding Company, LLC, Green Plains Renewable Energy, Inc., Green Plains Wood River LLC and Green Plains Fairmont LLC dated November 22, 2013 (Incorporated by reference to Exhibit 2.2 of the company's Current Report on Form 8-K filed November 25, 2013)
- 2.4 Membership Interest Purchase Agreement between Murphy Oil USA, Inc. and Green Plains Inc. dated October 28, 2015 (certain exhibits and disclosure schedules to this agreement have been omitted; Green Plains will furnish such exhibits and disclosure schedules to the SEC upon request) (Incorporated by reference to Exhibit 2.1 to the company's Current Report on Form 8-K dated November 12, 2015)

- 3.1(a) Second Amended and Restated Articles of Incorporation of the Company (Incorporated by reference to Exhibit 3.1 of the company's Current Report on Form 8-K filed October 15, 2008)
- 3.1(b) Articles of Amendment to Second Amended and Restated Articles of Incorporation of Green Plains Renewable Energy, Inc. (Incorporated by reference to Exhibit 3.1 of the company's Current Report on Form 8-K filed May 9, 2011)
- 3.1(c) Second Articles of Amendment to Second Amended and Restated Articles of Incorporation of Green Plains Renewable Energy, Inc. (Incorporated by reference to Exhibit 3.1 of the company's Current Report on Form 8-K filed May 16, 2014)
- 3.2 Second Amended and Restated Bylaws of Green Plains Renewable Energy, Inc., dated August 14, 2012 (Incorporated by reference to Exhibit 3.1 of the company's Current Report on Form 8-K filed August 15, 2012)
- 4.1 Shareholders' Agreement by and among Green Plains Renewable Energy, Inc., each of the investors listed on Schedule A, and each of the existing shareholders and affiliates identified on Schedule B, dated May 7, 2008 (Incorporated by reference to Appendix F of the company's Registration Statement on Form S-4/A filed September 4, 2008)
- 4.2 Form of Senior Indenture (Incorporated by reference to Exhibit 4.5 of the company's Registration Statement on Form S-3/A filed December 30, 2009)
- 4.3 Form of Subordinated Indenture (Incorporated by reference to Exhibit 4.6 of the company's Registration Statement on Form S-3/A filed December 30, 2009)
- 4.4 Indenture relating to the 3.25% Convertible Senior Notes due 2018, dated as of September 20, 2013, between Green Plains Renewable Energy, Inc. and Willington Trust, National Association, including the form of Global Note attached as Exhibit A thereto (Incorporated by reference to Exhibit 4.1 to the company's Current Report on Form 8-K filed September 20, 2013)
- \*10.1 Amended and Restated Employment Agreement dated October 24, 2008, by and between the company and Jerry L. Peters (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K dated October 28, 2008)
- \*10.2 2007 Equity Incentive Plan (Incorporated by reference to Appendix A of the company's Definitive Proxy Statement filed March 27, 2007)
- 10.3 Form of Indemnification Agreement (Incorporated by reference to Exhibit 10.53 of the company's Registration Statement on Form S-4/A filed August 1, 2008)
- \*10.4(a) Employment Agreement with Todd Becker (Incorporated by reference to Exhibit 10.54 of the company's Registration Statement on Form S-4/A filed August 1, 2008)
- \*10.4(b) Amendment No. 1 to Employment Agreement with Todd Becker, dated December 18, 2009. (Incorporated by reference to Exhibit 10.7(b) of the company's Annual Report on Form 10-K filed February 24, 2010)
- \*10.5 Non-Statutory Stock Option Agreement between Steve Bleyl and Green Plains Renewable Energy, Inc. dated October 15, 2008 (Incorporated by reference to Exhibit 10.50 of the company's Annual Report on Form 10-KT dated March 31, 2009)
- \*10.6 Non-Statutory Stock Option Agreement between Michael Orgas and Green Plains Renewable Energy, Inc. dated November 1, 2008 (Incorporated by reference to Exhibit 10.52 of the company's Annual Report on Form 10-KT, dated March 31, 2009)
- \*10.7 Employment Agreement by and between Green Plains Renewable Energy, Inc. and Michael C. Orgas dated November 1, 2008 (Incorporated by reference to Exhibit 10.1 of the company's Quarterly Report on Form 10-Q filed May 15, 2009)
- \*10.8(a) 2009 Equity Incentive Plan (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K dated May 11, 2009)

- \*10.8(b) Amendment No. 1 to the 2009 Equity Incentive Plan (Incorporated by reference to Appendix A of the company's Definitive Proxy Statement filed March 25, 2011)
- \*10.8(c) Amendment No. 2 to the 2009 Equity Incentive Plan (Incorporated by reference to Appendix A of the company's Definitive Proxy Statement filed March 29, 2013)

- \*10.8(d) Form of Stock Option Award Agreement for 2009 Equity Incentive Plan (Incorporated by reference to Exhibit 10.19(b) of the company's Annual Report on Form 10-K filed February 24, 2010)
- \*10.8(e) Form of Restricted Stock Award Agreement for 2009 Equity Incentive Plan (Incorporated by reference to Exhibit 10.19(c) of the company's Annual Report on Form 10-K/A (Amendment No. 1) filed February 25, 2010)
- \*10.8(f) Form of Deferred Stock Unit Award Agreement for 2009 Equity Incentive Plan (Incorporated by reference to Exhibit 10.19(d) of the company's Annual Report on Form 10-K filed February 24, 2010)
- 10.9(a) Second Amended and Restated Revolving Credit and Security Agreement dated April 26, 2013 by and among Green Plains Trade Group LLC and PNC Bank, National Association (as Lender and Agent) (Incorporated by reference to Exhibit 10.2 of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- 10.9(b) Third Amended and Restated Revolving Credit and Security Agreement dated November 26, 2014 by and among Green Plains Trade Group LLC, the Lenders and PNC Bank, National Association (as Lender and Agent) (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K filed December 2, 2014)
- 10.9(c) Second Amended and Restated Revolving Credit Note dated April 26, 2013 by and among Green Plains Trade Group LLC and PNC Bank, National Association (Incorporated by reference to Exhibit 10.2(a) of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- 10.9(d) Revolving Credit Note dated April 26, 2013 by and among Green Plains Trade Group LLC and Citibank, N.A. (Incorporated by reference to Exhibit 10.2(b) of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- 10.9(e) Revolving Credit Note dated April 26, 2013 by and among Green Plains Trade Group LLC and BMO Harris Bank N.A. (Incorporated by reference to Exhibit 10.2(c) of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- 10.9(f) Revolving Credit Note dated April 26, 2013 by and among Green Plains Trade Group LLC and Alostara Bank of Commerce (Incorporated by reference to Exhibit 10.2(d) of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- 10.9(g) Revolving Credit Note dated April 26, 2013 by and among Green Plains Trade Group LLC and Bank of America (Incorporated by reference to Exhibit 10.2(e) of the company's Quarterly Report on Form 10-Q filed May 2, 2013)
- \*10.10 Short-Term Incentive Plan (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K filed January 27, 2010)
- \*10.11 Director Compensation effective April 1, 2014 (Incorporated by reference to Exhibit 10.15 of the company's Annual Report on Form 10-K filed February 10, 2014)
- \*10.12 Employment Agreement dated March 4, 2011 by and between the company and Jeffrey S. Briggs (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K filed March 8, 2011)
- \*10.13 Employment Agreement dated March 4, 2011 by and between the company and Carl S. (Steve) Bleyl (Incorporated by reference to Exhibit 10.2 of the company's Current Report on Form 8-K filed March 8, 2011)
- 10.14(a) Master Loan Agreement dated June 13, 2011 by and among Green Plains Obion LLC and Farm Credit Services of Mid-America, FLCA (Incorporated by reference to Exhibit 10.12 of the company's Quarterly Report on Form 10-Q filed August 3, 2011)
- 10.14(b) Amendment to the Master Loan Agreement, dated October 24, 2012, by and among Green Plains Obion LLC, Farm Credit Services of Mid-America, FLCA and Farm Credit Services of Mid-America, PCA

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(Incorporated by reference to Exhibit 10.6 of the company's Quarterly Report on Form 10-Q filed November 1, 2012)

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- 10.14(c) Real Estate Deed of Trust dated January 18, 2007 by and among Ethanol Grain Processors, LLC (n/k/a Green Plains Obion LLC) , Farm Credit Services of Mid-America, FLCA and Farm Credit Services of Mid-America, PCA (Incorporated by reference to Exhibit 10.18(c) of the company's Annual Report on Form 10-K filed February 15, 2013)
- 10.14(d) Amendment to the Master Loan Agreement, dated November 13, 2013, by and among Green Plains Obion LLC, Farm Credit Services of Mid-America, FLCA and Farm Credit Services of Mid-America, PCA (Incorporated by reference to Exhibit 10.18(d) of the company's Annual Report on Form 10-K filed February 10, 2014)
- 10.14(e) Revolving Term Loan Supplement, dated June 26, 2014, by and between Green Plains Obion LLC and Farm Credit Mid-America, FLCA (Incorporated by reference to Exhibit 10.1 of the company's Quarterly Report on Form 10-Q filed July 31, 2014)
- 10.15(a) Master Loan Agreement dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.9 of the company's Quarterly Report on Form 10-Q filed August 3, 2011)
- 10.15(b) Amendment dated December 21, 2012 to the Master Loan Agreement dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.19(b) of the company's Annual Report on Form 10-K filed February 15, 2013)
- 10.15(c) Amendment dated October 24, 2013 to the Master Loan Agreement, as amended, dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.5 of the company's Quarterly Report on Form 10-Q filed October 31, 2013)
- 10.15(d) Amendment dated August 18, 2014 to the Master Loan Agreement, as amended, dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.1 of the company's Quarterly Report on Form 10-Q filed October 30, 2014)
- 10.15(e) Revolving Term Loan Supplement dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.11 of the company's Quarterly Report on Form 10-Q filed August 3, 2011)
- 10.15(f) Revolving Term Loan Supplement dated August 18, 2014 to the Master Loan Agreement, as amended, dated June 20, 2011 by and among Green Plains Superior LLC and Farm Credit Services of America, FLCA (Incorporated by reference to Exhibit 10.2 of the company's Quarterly Report on Form 10-Q filed October 30, 2014)
- 10.16(a) Credit Agreement dated October 28, 2011 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc., BNP Paribas Securities Corp. as Lead Arranger, Rabo Agrifinance, Inc. as Syndication Agent, ABN AMRO Capital USA LLC as Documentation Agent and BNP Paribas as Administrative Agent (Incorporated by reference to Exhibit 10.1 of the company's Current Report on Form 8-K filed November 3, 2011)
- 10.16(b) Security Agreement dated October 28, 2011 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc. and BNP Paribas (Incorporated by reference to Exhibit 10.2 of the company's Current Report on Form 8-K filed November 3, 2011)
- 10.16(c) Promissory Note dated October 28, 2011 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc. and Bank of Oklahoma (Incorporated by reference to Exhibit 10.3 of the company's Current Report on Form 8-K filed November 3, 2011)
- 10.16(d) Promissory Note dated October 28, 2011 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc. and U.S. Bank National Association (Incorporated by reference to Exhibit 10.4 of the company's Current Report on Form 8-K filed November 3, 2011)
- 10.16(e)

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Promissory Note dated October 28, 2011 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc. and Farm Credit Bank of Texas (Incorporated by reference to Exhibit 10.5 of the company's Current Report on Form 8-K filed November 3, 2011)

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- 10.16(f) First Amendment to Credit Agreement dated January 6, 2012 by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex Inc., BNP Paribas and the Required Lenders (Incorporated by reference to Exhibit 10.26(k) of the company's Annual Report on Form 10-K filed February 17, 2012)
- 10.16(g) Second Amendment to Credit Agreement, dated October 26, 2012, by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex, Inc., BNP Paribas, as the administrative agent under the Credit Agreement, and the lenders party to the Credit Agreement (Incorporated by reference to Exhibit 10.5 of the company's Quarterly Report on Form 10-Q filed November 1, 2012)
- 10.16(h) Third Amendment to Credit Agreement, dated August 27, 2013, by and among Green Plains Grain Company LLC, Green Plains Grain Company TN LLC, Green Plains Essex, Inc., BNP Paribas, as the administrative agent under the Credit Agreement, and the lenders party to the Credit Agreement (Incorporated by reference to Exhibit 10.3 of the company's Quarterly Report on Form 10-Q filed October 31, 2013)
- 10.16(i) Fourth Amendment to Credit Agreement, dated August 8, 2014, by and among Green Plains Grain Company LLC (including in its capacity as successor by merger to Green Plains Essex Inc.), Green Plains Grain Company TN LLC, BNP Paribas, as the administrative agent under the Credit Agreement, and the lenders party to the Credit Agreement (Incorporated by reference to Exhibit 10.3 of the company's Quarterly Report on Form 10-Q filed October 30, 2014)
- 10.17(a) Amended and Restated Credit Agreement, dated February 9, 2012 by and among Green Plains Holdings II, various lenders and CoBank, ACB (as Administrative Agent, Syndication Agent and Lead Arranger) (Incorporated by reference to Exhibit 10.27(a) of the company's Annual Report on Form 10-K filed February 17, 2012)
- 10.17(b) First Amendment to Amended and Restated Credit Agreement, dated October 16, 2012, by and between Green Plains Holdings II LLC and CoBank, ACB (Incorporated by reference to Exhibit 10.4 of the company's Quarterly Report on Form 10-Q filed November 1, 2012)
- 10.17(c) Second Amendment to Amended and Restated Credit Agreement, dated February 28, 2014, by and between Green Plains Holdings II LLC and CoBank ACB (Incorporated by reference to Exhibit 10.1 of the company's Quarterly Report on Form 10-Q filed May 1, 2014)
- 10.17(d) Amended and Restated Support and Subordination Agreement, dated February 9, 2012 by and among Green Plains Holdings II, as Borrower, Green Plains Renewable Energy, Inc., as Parent, and CoBank, ACB, as Administrative Agent (Incorporated by reference to Exhibit 10.27(b) of the company's Annual Report on Form 10-K filed February 17, 2012)
- 10.17(e) Security Agreement, dated February 9, 2012 by and among Green Plains Holdings II (the Grantor) and CoBank, ACB (the Secured Party) (Incorporated by reference to Exhibit 10.27(c) of the company's Annual Report on Form 10-K filed February 17, 2012)
- 10.17(f) Second Amendment to Mortgage, dated February 9, 2012 by and among, Green Plains Holdings II and CoBank ACB (Incorporated by reference to Exhibit 10.27(d) of the company's Annual Report on Form 10-K filed February 17, 2012)
- 10.17(g) Second Amendment to Amended and Restated Real Estate Mortgage, dated February 9, 2012 by and among Green Plains Holdings II and CoBank, ACB (Incorporated by reference to Exhibit 10.27(e) of the company's Annual Report on Form 10-K filed February 17, 2012)
- \*10.18 Employment Agreement by and between Green Plains Renewable Energy, Inc. and Patrich Simpkins dated April 1, 2012 (Incorporated by reference to Exhibit 10.2 of the company's Quarterly Report on Form 10-Q filed May 1, 2014)
- 10.19(a)

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Term Loan Agreement, dated as of June 10, 2014, among Green Plains Processing, LLC, as Borrower, the Lenders Party Hereto, BNP Paribas, as Administrative Agent and as Collateral Agent, and BMO Capital Markets and BNP Paribas Securities Corp., as Joint Lead Arrangers and Joint Book Runners (Incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated June 12, 2014)

10.19(b) Guaranty - Green Plains Inc. (Incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated June 12, 2014)

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- 10.19(c) Guaranty - Green Plains Processing Subsidiaries (Incorporated by reference to Exhibit 10.3 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(d) Pledge Agreement (Incorporated by reference to Exhibit 10.4 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(e) Security Agreement (Incorporated by reference to Exhibit 10.5 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(f) Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Atkinson LLC (Incorporated by reference to Exhibit 10.6 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(g) Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Central City LLC (Incorporated by reference to Exhibit 10.7 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(h) Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Ord LLC (Incorporated by reference to Exhibit 10.8 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(i) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Bluffton LLC (Incorporated by reference to Exhibit 10.9 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(j) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Otter Tail LLC (Incorporated by reference to Exhibit 10.10 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(k) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Shenandoah LLC (Incorporated by reference to Exhibit 10.11 to the company's Current Report on Form 8-K dated June 12, 2014)
- 10.19(l) First Amendment to Term Loan Agreement, dated as of June 11, 2015, among Green Plains as Borrower, the Lenders Party Hereto, BNP Paribas, as Administrative Agent and as Collateral Agent, and BMO Capital Markets and BNP Paribas Securities Corp., as Joint Lead Arrangers and Joint Book Runners (Incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(m) Second Amendment to Term Loan Agreement, dated as of June 11, 2015, by and between Green Plains Processing, BNP Paribas, as Administrative Agent and Collateral Agent and as a Lender (Incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(n) Joinder Agreement (Incorporated by reference to Exhibit 10.3 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(o) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Fairmont LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.4 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(p) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Holdings II LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.5 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(q) Mortgage by and from Green Plains Holdings II LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.6 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(r) Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing by and from Green Plains Obion LLC, as trustor, to the trustee named therein for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.7 to the company's Current Report on Form 8-K dated June 16, 2015)

10.19(s) Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Superior LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.8 to the company's Current Report on Form 8-K dated June 16, 2015)

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- 10.19(t) Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by and from Green Plains Wood River LLC, as trustor, to the trustee named therein for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.9 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(u) Amendment to Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Otter Tail LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.10 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(v) Amendment to Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Bluffton LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.11 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(w) Amendment to Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by and from Green Plains Atkinson LLC, as trustor, to the trustee named therein for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.12 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(x) Amendment to Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by and from Green Plains Central City LLC, as trustor, to the trustee named therein for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.13 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(y) Amendment to Deed of Trust, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by and from Green Plains Ord LLC, as trustor, to the trustee named therein for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.14 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.19(z) Amendment to Mortgage, Assignment of Leases and Rents, Security Agreement and Fixture Filing Statement by Green Plains Shenandoah LLC, as mortgagor, to and for the benefit of BNP Paribas (Incorporated by reference to Exhibit 10.15 to the company's Current Report on Form 8-K dated June 16, 2015)
- 10.20(a) Credit Agreement dated December 3, 2014 among Green Plains Cattle Company, LLC, Bank of the West and ING Capital LLC, as Joint Administrative Agents, and the lenders party to the Credit Agreement (Incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated December 5, 2014)
- 10.20(b) Security and Pledge Agreement dated December 3, 2014 among Green Plains Cattle Company, LLC, and Bank of the West and ING Capital LLC in their capacity as Joint Administrative Agents (Incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated December 5, 2014)
- 10.21 Contribution, Conveyance and Assumption Agreement, dated July 1, 2015, by and among Green Plains Inc., Green Plains Obion LLC, Green Plains Trucking LLC, Green Plains Holdings LLC, Green Plains Partners LP and Green Plains Operating Company LLC (Incorporated by reference to Exhibit 10.1 to the company's Current Report on Form 8-K dated July 6, 2015)
- 10.22(a) Omnibus Agreement, dated July 1, 2015, by and among Green Plains Inc., Green Plains Holdings LLC, Green Plains Partners LP and Green Plains Operating Company LLC (Incorporated by reference to Exhibit 10.2 to the company's Current Report on Form 8-K dated July 6, 2015)
- 10.22(b) First Amendment to the Omnibus Agreement, dated January 1, 2016, by and among Green Plains Inc., Green Plains Holdings LLC, Green Plains Partners LP and Green Plains Operating Company LLC
- 10.23(a) Operational Services and Secondment Agreement, dated July 1, 2015, by and between Green Plains Inc. and Green Plains Holdings LLC (Incorporated by reference to Exhibit 10.3 to the company's Current Report on Form 8-K dated July 6, 2015)

10.23(b) Amendment No. 1 to the Operational Services and Secondment Agreement, dated January 1, 2016, by and between Green Plains Inc. and Green Plains Holdings LLC

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- 10.24 Rail Transportation Services Agreement, dated July 1, 2015, by and between Green Plains Logistics LLC and Green Plains Trade Group LLC (Incorporated by reference to Exhibit 10.4 to the company's Current Report on Form 8-K dated July 6, 2015)
- 10.25(a) Ethanol Storage and Throughput Agreement, dated July 1, 2015, by and between Green Plains Ethanol Storage LLC and Green Plains Trade Group LLC (Incorporated by reference to Exhibit 10.5 to the company's Current Report on Form 8-K dated July 6, 2015)
- 10.25(b) Amendment No. 1 to the Ethanol Storage and Throughput Agreement, dated January 1, 2016, by and between Green Plains Ethanol Storage LLC and Green Plains Trade Group LLC
- 10.26 Credit Agreement, dated July 1, 2015, by and among Green Plains Operating Company LLC, as the Borrower, the subsidiaries of the Borrower identified therein, Bank of America, N.A., and the other lenders party thereto (Incorporated by reference to Exhibit 10.6 to the company's Current Report on Form 8-K dated July 6, 2015)
- 10.27 Asset Purchase Agreement, dated January 1, 2016, by and among Green Plains Inc., Green Plains Hereford LLC, Green Plains Hopewell LLC, Green Plains Holdings LLC, Green Plains Partners LP, Green Plains Operating Company LLC, Green Plains Ethanol Storage LLC and Green Plains Logistics LLC
- 21.1 Schedule of Subsidiaries
- 23.1 Consent of KPMG LLP
- 31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002
- 31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Section 302 of the Sarbanes-Oxley Act of 2002
- 32.1 Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 32.2 Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
- 101 The following information from Green Plains Inc.'s Annual Report on Form 10-K for the annual period ended December 31, 2015, formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income (iv) the Consolidated Statements of Stockholders' Equity (v) the Consolidated Statements of Cash Flows and (vi) the Notes to Consolidated Financial Statements and Financial Statement Schedule.

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\* Represents management compensatory contracts





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.

GREEN PLAINS INC.

(Registrant)

Date: February 18, 2016

By: /s/ Todd A. Becker

Todd A. Becker

President and Chief Executive Officer

(Principal 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/ Todd A. Becker Todd A. Becker	President and Chief Executive Officer (Principal Executive Officer) and Director	February 18, 2016
/s/ Jerry L. Peters Jerry L. Peters	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	February 18, 2016
/s/ Wayne B. Hoovestol Wayne B. Hoovestol	Chairman of the Board	February 18, 2016
/s/ Jim Anderson	Director	February 18, 2016

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Jim Anderson

/s/ James F. Crowley     Director     February 18, 2016  
James F. Crowley

/s/ S. Eugene Edwards     Director     February 18, 2016  
S. Eugene Edwards

/s/ Gordon F. Glade     Director     February 18, 2016  
Gordon F. Glade

/s/ Thomas L. Manuel     Director     February 18, 2016  
Thomas L. Manuel

/s/ Brian D. Peterson     Director     February 18, 2016  
Brian D. Peterson

/s/ Alain Treuer     Director     February 18, 2016  
Alain Treuer

Report of Independent Registered Public Accounting Firm

The Board of Directors and Stockholders

Green Plains Inc. and subsidiaries:

We have audited the accompanying consolidated balance sheets of Green Plains Inc. and subsidiaries (the company) as of December 31, 2015 and 2014, and the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the years in the three year period ended December 31, 2015. In connection with our audits of the consolidated financial statements, we have also audited the financial statement schedule listed in the Index in Item 15. These consolidated financial statements and financial statement schedule are the responsibility of the company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

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

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Green Plains Inc. and subsidiaries as of December 31, 2015 and 2014, and the results of its operations and its cash flows for each of the years in the three year period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedule, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the company's internal control over financial reporting as of December 31, 2015, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated February 18, 2016 expressed an unqualified opinion on the effectiveness of the company's internal control over financial reporting.

/s/ KPMG LLP

Omaha, Nebraska  
February 18, 2016

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## GREEN PLAINS INC. AND SUBSIDIARIES

## CONSOLIDATED BALANCE SHEETS

(in thousands, except share amounts)

	December 31,	
	2015	2014
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	\$ 384,867	\$ 425,510
Restricted cash	27,018	29,742
Accounts receivable, net of allowances of \$285 and \$1,231, respectively	96,150	138,073
Income taxes receivable	9,104	-
Inventories	353,957	254,967
Prepaid expenses and other	10,941	18,776
Derivative financial instruments	30,540	36,347
Total current assets	912,577	903,415
Property and equipment, net	922,070	825,210
Goodwill	40,877	40,877
Other assets	53,804	51,560
Total assets	\$ 1,929,328	\$ 1,821,062
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities		
Accounts payable	\$ 168,528	\$ 170,199
Accrued and other liabilities	38,706	65,083
Income taxes payable	-	2,907
Short-term notes payable and other borrowings	226,928	209,886
Current maturities of long-term debt	4,507	63,465
Total current liabilities	438,669	511,540
Long-term debt	443,547	399,440
Deferred income taxes	81,797	107,740
Other liabilities	6,406	4,893
Total liabilities	970,419	1,023,613

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Stockholders' equity		
Common stock, \$0.001 par value; 75,000,000 shares authorized; 45,281,571 and 44,808,982 shares issued, and 37,889,871 and 37,608,982 shares outstanding, respectively	45	45
Additional paid-in capital	577,787	569,431
Retained earnings	290,974	299,101
Accumulated other comprehensive income (loss)	(1,165)	(5,320)
Treasury stock, 7,391,700 and 7,200,000 shares, respectively	(69,811)	(65,808)
Total Green Plains stockholders' equity	797,830	797,449
Noncontrolling interest	161,079	-
Total stockholders' equity	958,909	797,449
Total liabilities and stockholders' equity	\$ 1,929,328	\$ 1,821,062

See accompanying notes to the consolidated financial statements.

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## GREEN PLAINS INC. AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF OPERATIONS

(in thousands, except per share amounts)

	Year Ended December 31,		
	2015	2014	2013
Revenues			
Product revenues	\$ 2,957,201	\$ 3,227,127	\$ 3,033,832
Service revenues	8,388	8,484	7,179
Total revenues	2,965,589	3,235,611	3,041,011
Costs and expenses			
Cost of goods sold	2,729,599	2,783,045	2,808,814
Operations and maintenance expenses	29,369	26,424	17,854
Selling, general and administrative expenses	79,594	77,729	55,638
Depreciation and amortization expenses	65,950	62,139	50,854