

Green Plains Renewable Energy, Inc.
Form 424B5
March 05, 2010
Table of Contents

Filed Pursuant to Rule 424(b)
Registration File No. 333-163203

Prospectus Supplement

(To Prospectus dated January 14, 2010)

5,500,000 Shares

GREEN PLAINS RENEWABLE ENERGY, INC.

Common Stock

We are offering for sale up to 5,500,000 shares of our common stock. Our common stock is quoted on The NASDAQ Global Market under the symbol GPRE. On March 4, 2010, the last reported sale price of our common stock on The NASDAQ Global Market was \$14.83 per share.

Investing in our common stock involves a high degree of risk. Please read **Risk Factors** beginning on page S-7.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful and complete. Any representation to the contrary is a criminal offense.

	PER SHARE	TOTAL
Public Offering Price	\$ 13.50	\$ 74,250,000
Underwriting Discounts and Commissions	\$ 0.81	\$ 4,455,000
Proceeds to Green Plains Renewable Energy (Before Expenses)	\$ 12.69	\$ 69,795,000

Delivery of the shares of common stock is expected to be made on or about March 10, 2010. We have granted the underwriters an option for a period of 30 days to purchase additional 825,000 shares of common stock to cover overallocments. If the underwriters exercise the option in full, the total underwriting discounts and commissions payable by us will be \$5,123,250, and the total proceeds to us, before expenses, will be \$80,264,250.

Joint Bookrunning Managers

Jefferies & Company

Co-Managers

Piper Jaffray

Imperial Capital

Stephens Inc.

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Prospectus Supplement dated March 4, 2010.

Table of Contents

Table of Contents

	Page
Prospectus Supplement	
<u>About this Prospectus Supplement</u>	S-ii
<u>Special Note Regarding Forward-Looking Statements</u>	S-iii
<u>Prospectus Supplement Summary</u>	S-1
<u>Risk Factors</u>	S-7
<u>Use of Proceeds</u>	S-21
<u>Capitalization</u>	S-22
<u>Our Business</u>	S-23
<u>Material United States Federal Income Tax Considerations</u>	S-33
<u>Underwriting</u>	S-36
<u>Notice to Investors</u>	S-39
<u>Description of Common Stock</u>	S-41
<u>Legal Matters</u>	S-42
<u>Experts</u>	S-42
<u>Where You Can Find More Information</u>	S-42
<u>Incorporation of Certain Documents by Reference</u>	S-43
Prospectus	
<u>About this Prospectus</u>	1
<u>Special Note Regarding Forward-Looking Statements</u>	1
<u>Our Business</u>	2
<u>Risk Factors</u>	5
<u>Use of Proceeds</u>	5
<u>The Securities We May Offer</u>	5
<u>Description of Common Stock</u>	6
<u>Description of Warrants</u>	10
<u>Description of Debt Securities</u>	12
<u>Legal Ownership of Securities</u>	18
<u>Plan of Distribution</u>	21
<u>Legal Matters</u>	22
<u>Experts</u>	22
<u>Where You Can Find More Information</u>	22
<u>Incorporation of Documents by Reference</u>	23

You should rely only on the information contained in or incorporated by reference into this prospectus supplement, the accompanying prospectus and any free writing prospectus authorized by us. We have not, and the underwriters have not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and the underwriters are not, making an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. The information in this prospectus supplement and the accompanying prospectus is accurate only as of the date it is presented. Our business, financial condition, results of operations and prospects may have changed since these dates.

Table of Contents

About this Prospectus Supplement

Unless the context otherwise requires, all references in this prospectus supplement to we, us or our refer to Green Plains Renewable Energy, Inc. and its subsidiaries.

This prospectus supplement is part of a registration statement that we have filed with the Securities and Exchange Commission, or the SEC, utilizing a shelf registration process. Under this shelf registration process, we are offering to sell our common stock using this prospectus supplement and the accompanying prospectus. In this prospectus supplement, we provide you with specific information about the securities that we are selling in this offering. Both this prospectus supplement and the accompanying prospectus include important information about us, our securities being offered and other information you should know before investing. This prospectus supplement also adds, updates and changes information contained in the accompanying prospectus. You should read both this prospectus supplement and the accompanying prospectus as well as additional information described in the section entitled Incorporation of Certain Documents by Reference in this prospectus supplement and the accompanying prospectus before investing in our securities.

S-ii

Table of Contents

Special Note Regarding Forward-looking Statements

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This prospectus supplement contains such forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may be made directly in this prospectus supplement, and they may also be made a part of this prospectus supplement by reference to other documents filed with the SEC, which is known as incorporation by reference.

This prospectus supplement contains forward-looking statements based on current expectations that involve a number of risks and uncertainties. Forward-looking statements generally do not relate strictly to historical or current facts, but rather to plans and objectives for future operations based upon management's reasonable estimates of future results or trends, and include statements preceded by, followed by, or that include words such as anticipates, believes, continue, estimates, expects, intends, outlook, plans, predicts, may, could, should, phrases of similar impact, and include, but are not limited to, statements regarding future operating or financial performance, business strategy, business environment, key trends, and benefits of actual or planned acquisitions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Although we believe that our expectations regarding future events are based on reasonable assumptions, any or all forward-looking statements in this prospectus supplement may turn out to be incorrect. They may be based on inaccurate assumptions or may not account for known or unknown risks and uncertainties. Consequently, no forward-looking statement is guaranteed, and actual future results may vary materially from the results expressed or implied in our forward-looking statements. The cautionary statements in this prospectus supplement expressly qualify all of our forward-looking statements. In addition, we are not obligated, and do not intend, to update any of our forward-looking statements at any time unless an update is required by applicable securities laws. Factors that could cause actual results to differ from those expressed or implied in the forward-looking statements include, but are not limited to, those discussed in the section entitled "Risk Factors" in this prospectus supplement or in any document incorporated by reference. Specifically, we may experience significant fluctuations in future operating results due to a number of economic conditions, including, but not limited to, competition in the ethanol and other industries in which we compete, commodity market risks, financial market risks, counter-party risks, risks associated with changes to federal policy or regulation, and other risk factors detailed in our reports filed with the SEC. Actual results may differ from projected results due, but not limited, to unforeseen developments.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus supplement or in any document incorporated by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus supplement or the date of the document incorporated by reference in this prospectus supplement. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise.

S-iii

Table of Contents

Prospectus Supplement Summary

*This summary highlights certain information appearing elsewhere in this prospectus supplement and in the accompanying prospectus and in the documents we incorporate by reference. After you read this summary, you should read and consider carefully the more detailed information and financial statements and related notes that we include in or incorporate by reference into this prospectus supplement and the accompanying prospectus, especially the section entitled *Risk Factors* in this prospectus supplement. If you invest in our securities, you are assuming a high degree of risk.*

Our Business

We are a leading, vertically-integrated producer of ethanol. We have grown rapidly, primarily through acquisitions, and today we have operations throughout the ethanol value chain. Our operations begin upstream with our agronomy and grain handling operations, continue through our approximately 480 million gallons per year, or mmgy, of ethanol production capacity and end downstream with our ethanol marketing, distribution and blending facilities. We focus on generating stable operating margins through our diversified business segments and our risk management strategy. We believe that owning and operating assets throughout the ethanol value chain enables us to mitigate the effects of changes in commodity prices on our profitability and differentiates us from companies focused only on ethanol production.

Our disciplined risk management strategy is designed to lock in operating margins by forward contracting the four primary commodities involved in ethanol production: corn, natural gas, ethanol and distillers grains. We also seek to maintain an environment of continuous operational improvement to increase our efficiency and effectiveness as a low-cost producer of ethanol. For the year ended December 31, 2009, we generated \$1.3 billion in revenues and \$67.7 million in EBITDA, which we define as earnings before interest, income taxes, noncontrolling interests, depreciation and amortization.

Our Operating Segments

Currently, we operate within the three segments outlined below:

Ethanol Production. We operate a total of six ethanol plants in Indiana, Iowa, Nebraska and Tennessee, with approximately 480 mmgy of total ethanol production capacity. At capacity, our plants collectively will consume approximately 175 million bushels of corn and produce approximately 1.5 million tons of distillers grains annually. We are focused on maximizing the operational efficiency at each of our plants in order to achieve the lowest cost per gallon of ethanol produced.

Agribusiness. We operate three lines of business within our agribusiness segment: bulk grain, agronomy and petroleum. In our bulk grain business, we have total storage capacity of approximately 18.6 million bushels. We sell fertilizer and other agricultural inputs and provide application services to area producers through our agronomy business. Additionally, we sell petroleum products including diesel, soydiesel, blended gasoline and propane, primarily to agricultural producers and consumers. We believe our bulk grain business provides synergies with our ethanol production segment as it supplies a portion of the feedstock for our ethanol plants.

Marketing and Distribution. Our in-house, fee-based marketing business is responsible for the sales, marketing and distribution of all ethanol and distillers grains produced at our six plants. We also market and distribute ethanol for four third-party ethanol producers with expected production totaling approximately 360 mmgy. Additionally, we hold a majority interest in Blendstar, LLC, which operates nine blending or terminaling facilities with approximately 495 mmgy of total throughput capacity in seven states in the south central United States.

Our Competitive Strengths

We believe we have created a platform that diversifies our revenues and income stream. Fundamentally, we focus on managing commodity price risks, improving operating efficiencies and controlling costs. We believe our competitive strengths include:

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Disciplined Risk Management. We believe risk management is a core competency of ours. Our primary focus is to lock in favorable operating margins whenever possible. We do not speculate on general price movements by taking unhedged positions on commodity products such as corn or natural gas. Our comprehensive risk management platform allows us to monitor real-time commodity price risk exposure at each of our plants, and to respond quickly to lock in acceptable

S-1

Table of Contents

margins. By using a variety of risk management tools and hedging strategies, including our internally-developed real-time operating margin management system, we believe we are able to maintain a disciplined approach to risk management.

Demonstrated Asset Acquisition and Integration Capabilities. We have demonstrated the ability to make strategic acquisitions that we believe create synergies with our vertically-integrated platform. Our belief is that acquiring and developing complementary businesses enhances our ability to mitigate risks. Our balance sheet allows us to be selective in that process. Since our inception, we have acquired or developed six ethanol plants in addition to upstream grain elevators and agronomy businesses and downstream blending and distribution businesses. We believe these acquisitions have been successfully integrated into our business and have enhanced our overall returns.

Focus on Operational Excellence. Five of our six plants were built by Fagen Inc. using industry-leading ICM technology and all of our plants are staffed by experienced industry personnel. We focus on incremental operational improvements to enhance overall production efficiencies and we share operational knowledge across our plants. Using real-time production data and control systems, we continually monitor our plants in an effort to optimize performance. We believe our ability to improve operating efficiencies provides an operating cost advantage over most of our competitors. In turn, we believe we are well positioned to increase operating margins for any facilities that we may acquire in the future.

Leading Vertically-Integrated Ethanol Producer. We believe our operations throughout the ethanol value chain reduce our commodity and operating risks, and increase our pricing visibility and influence in key markets. Combined, we believe our agribusiness, ethanol production, and marketing and distribution businesses give us efficiencies across the ethanol value chain, from grain procurement to blending fuel. Our agribusiness operations help to reduce our supply risk by providing grain handling and storage capabilities for approximately 18.6 million bushels. Assuming full production capacity at each of our plants and those of our third-party ethanol producers, we would market approximately 840 mmgy of ethanol from ten plants. Our majority interest in Blendstar allows us to source, store, blend and distribute ethanol and biodiesel across multiple states.

Proven Management Team. Our senior management team brings an average of 20 years of commodity risk management and related industry experience. We have specific expertise across all aspects of the ethanol supply, production, and distribution chain from agribusiness, to plant operations and management, to commodity markets and risk management, to ethanol marketing.

Our Growth Strategy

We intend to continue to focus on strengthening and diversifying our vertically-integrated platform by implementing the following growth strategies:

Develop or Acquire Strategically-Located Grain Elevators. We intend to pursue opportunities to develop or acquire additional grain elevators within the agribusiness segment, specifically those located near our ethanol plants. We believe that owning additional grain elevators in close proximity to our ethanol plants enables us to strengthen relationships with local corn producers, allowing us to source corn more effectively and at a lower average cost. Since all of our plants are located within or near the corn belt where a number of competitors also have ethanol facilities, we believe that owning grain elevators provides us with a competitive advantage in the origination of corn.

Pursue Consolidation Opportunities within the Ethanol Industry. We continue to focus on the potential acquisition of additional ethanol plants. Throughout 2009, we were approached with opportunities to acquire existing ethanol plants. We believe those plants were available for a number of reasons including financial distress of a particular facility, a lack of operational expertise or a desire by existing owners to exit their original investment. We will continue to take a disciplined approach in evaluating new opportunities by considering whether the plants fit within the design, engineering and geographic criteria we have developed. We believe that our integrated platform, plant operations experience and disciplined risk management approach give us the ability to generate favorable returns from our acquisitions.

Improve Operational Efficiency. We seek to enhance profitability at each of our plants by increasing our production volumes through operational improvements. We continually research operational processes that may increase our efficiency by increasing yields, lowering our processing cost per gallon and increasing our production volumes. Additionally, we employ an extensive cost control system at each of our plants to continuously monitor our plants performance. We are able to use performance data from our plants to develop strategies for cost reduction and efficiency that can be applied across our platform.

Table of Contents

Expand Our Third-Party Marketing Volumes. We plan to continue to grow our downstream access to customers and are actively looking at new marketing opportunities with other ethanol producers. We maintain active dialogues with prospective ethanol producers whose location, production and risk management practices are consistent with our vertically-integrated platform. We believe that further expansion of our third-party marketing volumes will enable us to continue to meet major ethanol customers' needs by providing us with a broader market presence and allowing us to further leverage our marketing expertise and distribution systems.

Invest in Next Generation Biofuel Opportunities. We plan to continue our investment in the BioProcessAlgae joint venture, which is focused on developing technology to grow and harvest algae, which consume carbon dioxide, in commercially viable quantities. We believe this technology has specific applications with facilities, including ethanol plants, that emit carbon dioxide. The algae produced has the potential to be used for advanced biofuel production, high quality animal feed or as biomass for energy production.

Recent Developments

Record Fourth Quarter 2009 Results. For the quarter ended December 31, 2009, we reported revenues of \$436.7 million, a 138% increase over the fourth quarter of 2008, and net income attributable to us of \$23.1 million, or \$0.91 per diluted share. For the year ended December 31, 2009, revenues were \$1.3 billion with net income attributable to us of \$19.8 million, or \$0.79 per diluted share. EBITDA for the year ended December 31, 2009 was \$67.7 million. Our ethanol production segment increased ethanol sold from 73.2 million gallons in the first quarter of 2009 to 121.8 million gallons in the fourth quarter of 2009.

Acquisition of Central City and Ord Ethanol Plants. In July 2009, we acquired the membership interests in two limited liability companies that owned ethanol plants in Central City and Ord, Nebraska for approximately \$121 million. These plants, which are a part of our ethanol production segment, were acquired to add to our overall ethanol and distillers grains production. The Central City and Ord plants added annual expected operating capacity totaling 150 mmgy.

Blendstar Acquisition. In January 2009, we acquired a majority interest in biofuel terminal operator Blendstar, LLC for \$8.9 million. The acquisition of Blendstar was a strategic investment within the ethanol value chain whose operations are included in our marketing and distribution segment.

Table of Contents

The Offering

Common stock offered by us: **5,500,000 shares, or 6,325,000 shares if the underwriters exercise their overallotment option in full.**

Common stock outstanding after this offering: **30,457,378 shares, or 31,282,378 shares if the underwriters exercise their overallotment option in full.**

Use of proceeds: **We intend to use the net proceeds of this offering for general corporate purposes. While we do not currently have any binding commitments or definitive agreements to enter into potential acquisitions, we may also use a portion of the net proceeds to acquire or invest in additional facilities, assets or technologies consistent with our growth strategy.**

NASDAQ Global Market symbol: **GPRE**

Lock-ups: **Our directors and executive officers and certain of our shareholders, including NTR, plc and Wilon Holdings, S.A., have agreed with the underwriters that, without the prior written consent of Jefferies and Piper Jaffray, subject to certain exceptions, neither we nor any of our directors or executive officers or certain of our shareholders will, for a period of 90 days following the date of this prospectus supplement, offer, sell or contract to sell any of our common stock.**

The number of shares to be outstanding after this offering is based on 24,957,378 shares outstanding on December 31, 2009 and excludes:

1,162,934 shares of common stock issuable upon the exercise of outstanding options at a weighted-average exercise price of \$15.27 per share;

692,005 shares of common stock available for issuance under our 2009 Equity Incentive Plan; and

327,256 shares of unvested restricted stock and deferred stock units.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the underwriters' overallotment option.

S-4

Table of Contents

Summary Selected Financial Data

The following selected financial data have been derived from our consolidated financial statements. The statement of operations for the year ended December 31, 2009 and the nine-month transition period ended December 31, 2008 and the balance sheet data as of December 31, 2008 and 2009 in the table is derived from and should be read in conjunction with our audited consolidated financial statements, including accompanying notes, incorporated by reference in this prospectus supplement from our Annual Report on Form 10-K for the year ended December 31, 2009. Amounts shown for the three months ended December 31, 2009 are derived from our consolidated financial statements, which are unaudited and not included or incorporated by reference into this prospectus supplement. 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 many factors, including those discussed in Risk Factors in this prospectus supplement.

	Year Ended December 31, 2009	Nine-Month Transition Period Ended December 31, 2008 ⁽¹⁾	Quarter Ended December 31, 2009
(In thousands, except per share information)			
Statement of Operations Data:			
Revenues	\$ 1,304,174	\$ 188,758	\$ 436,713
Cost of goods sold	1,221,745	175,444	392,449
Gross profit	82,429	13,314	
Selling, general and administrative expenses	44,923	18,467	14,501
Operating income (loss)	37,506	(5,153)	29,763
Total other income (expense)	(17,261)	(2,896)	(6,165)
Net income (loss)	20,154	(8,049)	23,319
Net income (loss) attributable to Green Plains	19,790	(6,897)	23,050
Earnings (loss) per share attributable to Green Plains:			
Basic	\$ 0.79	\$ (0.56)	\$ 0.92
Diluted	0.79	\$ (0.56)	\$ 0.91
Other Data:			
EBITDA (unaudited) (2)	\$ 67,707	\$ 601	\$ 37,798
Statement of Cash Flows Data:			
Cash flows provided by (used in) operating activities	\$ 53,427	\$ (44,450)	\$ 42,101
Cash flows provided by (used in) investing activities	(17,784)	(72,954)	(6,243)
Cash flows provided by (used in) financing activities	(8,158)	179,160	(10,344)
	December 31,		
	2009	2008	
Balance Sheet Data:			
Cash and cash equivalents	\$ 89,779	\$ 62,294	
Current assets	252,446	190,797	
Total assets	878,081	693,263	
Current liabilities	174,332	108,446	
Long-term debt	388,573	299,011	
Total liabilities	567,373	413,278	

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Stockholders' equity

310,708

279,985

S-5

Table of Contents

- (1) The October 15, 2008 merger with VBV, LLC was accounted for as a reverse acquisition. Although VBV was considered the acquiring entity for accounting purposes, the merger was structured so that VBV became our wholly-owned subsidiary. As a result, our assets and liabilities as of October 15, 2008, the date of the merger closing, were incorporated into VBV's balance sheet based on the fair values of the net assets, which equaled the consideration paid in the merger. U.S. generally accepted accounting principles, or GAAP, also requires an allocation of the acquisition consideration to individual assets and liabilities including tangible assets, financial assets, separately-recognized intangible assets and goodwill.

Pursuant to reverse merger accounting rules, our consolidated financial statements and results of operations for the nine-month transition period ended December 31, 2008 reflect the historical financial results of VBV and its subsidiaries for these periods, along with the acquired fair value of our assets and liabilities as of October 15, 2008 and our financial results since October 15, 2008.

- (2) Management uses earnings before interest, income taxes, noncontrolling interests, depreciation and amortization, or EBITDA, to compare the financial performance of our business segments and to internally manage those segments. Management believes that EBITDA provides useful information to investors as a measure of comparison with peer and other companies. EBITDA should not be considered an alternative to, or more meaningful than, net income or cash flow as determined in accordance with generally accepted accounting principles. 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 sets forth the reconciliation of net income to EBITDA for the periods indicated (in thousands):

	Year Ended December 31, 2009	Nine-Month Transition Period Ended December 31, 2008	Quarter Ended December 31, 2009
Net income (loss) attributable to Green Plains	\$ 19,790	\$ (6,897)	\$ 23,050
Interest expense	18,049	3,933	6,048
Depreciation and amortization	29,413	4,717	8,152
Net income (loss) attributable to noncontributing interests	364	(1,152)	268
Income taxes	91		280
EBITDA	\$ 67,707	\$ 601	\$ 37,798

Table of Contents

Risk Factors

We operate in an evolving industry that presents numerous risks. Many of these risks are beyond our control and are driven by factors that often cannot be predicted. Investors should carefully consider the risk factors set forth below, as well as the other information appearing in this prospectus supplement, before making any investment in our securities. If any of the risks described below or in the documents incorporated by reference in this prospectus supplement actually occur, our financial results, financial condition or stock price could be materially adversely affected. These risk factors should be considered in conjunction with the other information included in this prospectus supplement and the accompanying prospectus.

Risks relating to our business and industry

We have a limited operating history and our business may not be as successful as envisioned.

We began our business in 2004; however, our first ethanol production facility did not commence operations until August 2007, and the fourth quarter of 2009 represents the first full quarter during which all of our current plants were operating at capacity. Accordingly, we have a limited operating history from which you can evaluate our business and prospects. In addition, our prospects must be considered in light of the risks and uncertainties encountered by a company with limited operating history in rapidly-evolving markets, such as the ethanol market, where supply and demand may change significantly in a short amount of time.

Some of these risks relate to our potential inability to:

effectively manage our business and operations;

successfully execute plans to sell ethanol at prices and on terms favorable to us;

recruit and retain key personnel;

successfully maintain a low-cost structure through the expansion of scale in business;

manage rapid growth in personnel and operations; and

successfully address the other risks described throughout this prospectus.

If we cannot successfully address these risks, our business and our results of operations and financial position may suffer.

Our results of operations and ability to operate at a profit is largely dependent on managing the spread among the prices of corn, natural gas, ethanol and distillers grains, the prices of which are subject to significant volatility and uncertainty.

The results of our ethanol production business are highly impacted by commodity prices, including the spread between the cost of corn and natural gas that we must purchase, and the price of ethanol and distillers grains that we sell. Prices and supplies are subject to and determined by market forces over which we have no control, such as weather, domestic and global demand, shortages, export prices, and various governmental policies in the United States and around the world. As a result of price volatility for these commodities, our operating results may fluctuate substantially. Increases in corn prices or natural gas or decreases in ethanol or distillers grains prices may make it unprofitable to operate our plants. No assurance can be given that we will be able to purchase corn and natural gas at, or near, current prices and that we will be able to sell ethanol or distillers grains at, or near, current prices. Consequently, our results of operations and financial position may be adversely affected by increases in the price of corn or natural gas or decreases in the price of ethanol and distillers grains.

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

In early 2006, the spread between ethanol and corn prices was at historically high levels, driven in large part by oil companies removing a competitive product, methyl tertiary butyl ether, or MTBE, from the fuel stream and replacing it with ethanol in a relatively short time period. However, since that time, this spread has fluctuated widely and narrowed significantly. Fluctuations are likely to continue to occur. A sustained narrow spread or any further reduction in the spread between ethanol and corn prices, whether as a result of sustained high or increased corn prices or sustained low or decreased ethanol prices, would adversely affect our results of operations and financial position. Further, combined revenues from sales of ethanol and distillers grains could decline below our marginal cost of production, which could cause us to suspend production of ethanol and distillers grains at some or all of our plants.

S-7

Table of Contents

Our risk management strategies, including hedging transactions, may be ineffective and may expose us to decreased liquidity.

In an attempt to partially offset the effects of volatility of ethanol, distillers grains, corn and natural gas prices, we enter into forward contracts to sell a portion of our respective ethanol and distillers grains production or to purchase a portion of our respective corn or natural gas requirements. To a much lesser extent, we also engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas, ethanol and unleaded gasoline from time to time. The financial statement impact of these activities is dependent upon, among other things, the prices involved and our ability to physically receive or deliver the commodities involved. Hedging arrangements also expose us to the risk of financial loss in situations where the other party to the hedging contract defaults on its contract or, in the case of exchange-traded contracts, where there is a change in the expected differential between the price of the commodity underlying the hedging agreement and the actual prices paid or received by us for the physical commodity bought or sold. Hedging activities can themselves result in losses when a position is purchased in a declining market or a position is sold in a rising market. A hedge position is often settled in the same time frame as the physical commodity is either purchased (corn and natural gas) or sold (ethanol and distillers grains). Hedging losses may be offset by a decreased cash price for corn and natural gas and an increased cash price for ethanol and distillers grains. We also vary the amount of hedging or other risk mitigation strategies we undertake, and we may choose not to engage in hedging transactions at all. We cannot assure you that our risk management and hedging activities will be effective in offsetting the effects of volatility. If we fail to offset such volatility, our results of operations and financial position may be adversely affected.

We also attempt to reduce the market risk associated with fluctuations in commodity prices through the use of derivative financial instruments. Sudden changes in commodity prices may require cash deposits with brokers, or margin calls. Depending on our open derivative positions, we may require additional liquidity with little advance notice to meet margin calls. As part of our risk management strategy, we have routinely had to, and in the future will likely be required to, cover margin calls. While we continuously monitor our exposure to margin calls, we cannot guarantee you that we will be able to maintain adequate liquidity to cover margin calls in the future.

Price volatility of each commodity that we buy and sell could each adversely affect our results of operations and our ability to operate at a profit.

Corn. Because ethanol competes with non-corn derived fuels, we generally are unable to pass along increased corn costs to our customers. At certain levels, corn prices may make ethanol uneconomical to produce. There is significant price pressure on local corn markets caused by nearby ethanol plants, livestock industries and other corn consuming enterprises. Additionally, local corn supplies and prices could be adversely affected by rising 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.

Natural Gas. The prices for and availability of natural gas are subject to volatile market conditions. These market conditions often are affected by factors beyond our control, such as weather conditions, overall economic conditions, and foreign and domestic governmental regulation and relations. Significant disruptions in the supply of natural gas could impair our ability to manufacture ethanol for our customers. Furthermore, increases in natural gas prices or changes in our natural gas costs relative to natural gas costs paid by competitors may adversely affect our results of operations and financial position.

Ethanol. Our revenues are dependent on market prices for ethanol. These market prices can be volatile as a result of a number of factors, including, but not limited to, the availability and price of competing fuels, the overall supply and demand for ethanol and corn, the price of gasoline and corn, and the level of government support.

Ethanol is marketed as a fuel additive to reduce vehicle emissions from gasoline, as an octane enhancer to improve the octane rating of the gasoline with which it is blended and, to a lesser extent, as a gasoline substitute. As a result, ethanol prices are influenced by the supply of and demand for gasoline. Our results of operations may be materially harmed if the demand for, or the price of, gasoline decreases. Conversely, a prolonged increase in the price of, or demand for, gasoline could lead the U.S. government to relax import restrictions on foreign ethanol that currently benefit us.

Distillers Grains. Distillers grains compete with other protein-based animal feed products. The price of distillers grains may decrease when the prices of competing feed products decrease. The prices of competing animal feed products are

Table of Contents

based in part on the prices of the commodities from which these products are derived. 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.

Historically, sales prices for distillers grains has tracked along with the price of corn. However, there have been occasions when the price increase for this co-product has lagged behind increases in corn prices. In addition, our distillers grains co-product competes with products made from other feedstocks, the cost of which may not have risen as corn prices have risen. Consequently, the price we may receive for distillers grains may not rise as corn prices rise, thereby lowering our cost recovery percentage relative to corn.

Due to recent and planned industry increases in U.S. dry mill ethanol production, the production of distillers grains in the United States has increased dramatically, and this trend may continue. This may cause distillers grains prices to fall in the United States, unless demand increases or other market sources are found. To date, demand for distillers grains in the United States has increased roughly in proportion to supply. We believe this is because U.S. farmers use distillers grains as a feedstock, and distillers grains are slightly less expensive than corn, for which it is a substitute. However, if prices for distillers grains in the United States fall, it may have a material adverse effect on our business.

Our existing debt arrangements require us to abide by certain restrictive loan covenants that may hinder our ability to operate and reduce our profitability.

The loan agreements governing secured debt financing at our subsidiaries contain a number of restrictive affirmative and negative covenants. These covenants limit the ability of our subsidiaries to, among other things, incur additional indebtedness, make capital expenditures above certain limits, pay dividends, merge or consolidate, or dispose of substantially all of their assets.

We are also required to maintain specified financial ratios, including minimum cash flow coverage, minimum working capital and minimum net worth. Some of our loan agreements require us to utilize a portion of any excess cash flow generated by operations to prepay the respective term debt. A breach of any of these covenants or requirements could result in a default under our loan agreements. If any of our subsidiaries default, and if such default is not cured or waived, our lenders could, among other remedies, accelerate their debt and declare that debt immediately due and payable. If this occurs, we may not be able to repay such debt or borrow sufficient funds to refinance. Even if new financing is available, it may not be on terms that are acceptable. No assurance can be given that the future operating results of our subsidiaries will be sufficient to achieve compliance with such covenants and requirements, or in the event of a default, to remedy such default.

In the past, we have received waivers from our lenders for failure to meet certain financial covenants and have amended our subsidiary loan agreements to change these covenants if they have not been met. For example, during 2009, loan agreements for Bluffton, Obion and Superior were amended to reduce certain financial covenants related to working capital and net worth balances. No assurance can be given that, if we are unable to comply with these covenants in the future, we will be able to obtain the necessary waivers or amend our subsidiary loan agreements to prevent a default.

The ethanol industry is highly dependent on government usage mandates affecting ethanol production and favorable tax benefits for ethanol blending and any changes to such regulation could adversely affect the market for ethanol and our results of operations.

The domestic market for ethanol is largely dictated by federal mandates for blending ethanol with gasoline. The Renewable Fuel Standard, or RFS, mandate level for 2010 of 12.0 billion gallons approximates current domestic production levels. Future demand will be largely dependent upon the economic incentives to blend based upon the relative value of gasoline versus ethanol, taking into consideration the blender's credit and the RFS. Any significant increase in production capacity beyond the RFS level might have an adverse impact on ethanol prices. Additionally, the RFS mandate with respect to ethanol derived from grain could be reduced or waived entirely. A reduction or waiver of the RFS mandate could adversely affect the prices of ethanol and our future performance.

The American Jobs Creation Act of 2004 created the volumetric ethanol excise tax credit, or VEETC, which is currently set to expire on December 31, 2010. Referred to as the blender's credit, VEETC provides companies with a tax credit to blend ethanol with gasoline. The Food, Conservation and Energy Act of 2008, or the 2008 Farm Bill, amended the amount of tax credit provided under VEETC to 45 cents per gallon of pure ethanol and 38 cents per gallon for E85, a

Table of Contents

blended motor fuel containing 85% ethanol and 15% gasoline. The elimination or further reduction of VEETC or other federal tax incentives to the ethanol industry would likely have a material adverse impact on our business by reducing demand and price for the ethanol we produce.

Federal law mandates the use of oxygenated gasoline. If these mandates are repealed, the market for domestic ethanol would be diminished significantly. Additionally, flexible-fuel vehicles receive preferential treatment in meeting corporate average fuel economy, or CAFE, standards. However, high blend ethanol fuels such as E85 result in lower fuel efficiencies. Absent the CAFE preferences, it may be unlikely that auto manufacturers would build flexible-fuel vehicles. Any change in these CAFE preferences could reduce the growth of E85 markets and result in lower ethanol prices.

To the extent that such federal or state laws 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 may be affected by changes to federal mandates, public perception and consumer acceptance, any of which could negatively affect demand for ethanol and our results of operations.

Ethanol production from corn has not been without controversy. Although many trade groups, academics and governmental agencies have supported ethanol as a fuel additive that promotes a cleaner environment, including the recently-released U.S. Environmental Protection Agency, or EPA regulations on the Renewable Fuel Standard program, others have criticized ethanol production as consuming considerably more energy and emitting more greenhouse gases than other biofuels and potentially depleting water resources. Some studies have suggested that corn-based ethanol is less efficient than ethanol produced from switchgrass or wheat grain and that it negatively impacts consumers by causing prices for dairy, meat and other foodstuffs from livestock that consume corn to increase. Additionally, ethanol critics contend that corn supplies are redirected from international food markets to domestic fuel markets. If negative views of corn-based ethanol production gain acceptance, support for existing measures promoting use and domestic production of corn-based ethanol could decline, leading to reduction or repeal of federal mandates which would adversely affect the demand for ethanol. These views could also negatively impact public perception of the ethanol industry and acceptance of ethanol as an alternative fuel.

Beyond the federal mandates, there are limited markets for ethanol. Discretionary blending and E85 blending is an important secondary market. Discretionary blending is often determined by the price of ethanol versus the price of gasoline. In periods when discretionary blending is financially unattractive, the demand for ethanol may be reduced. A reduction in the demand for our products may depress the value of our products, erode our margins, and reduce our ability to generate revenue or to operate profitably. Consumer acceptance of E85 fuels and flexible-fuel technology vehicles is needed before ethanol can achieve any significant growth in market share.

Increased federal support of cellulosic ethanol may result in reduced incentives to corn-derived ethanol producers.

Recent legislation, such as the American Recovery and Reinvestment Act of 2009 and the Energy Independence and Security Act of 2007, provides numerous funding opportunities in support of cellulosic ethanol, which is obtained from other sources of biomass such as switchgrass and fast growing poplar trees. In addition, the amended RFS mandates an increasing level of production of biofuels that are not derived from corn. Federal policies suggest a long-term political preference for cellulosic processes using alternative feedstocks such as switchgrass, silage, wood chips or other forms of biomass. Cellulosic ethanol has a smaller carbon footprint because the feedstock does not require energy-intensive fertilizers and industrial production processes. Additionally, cellulosic ethanol is favored because it is unlikely that foodstuff is being diverted from the market. Several cellulosic ethanol plants are under development. As research and development programs persist, there is the risk that cellulosic ethanol could displace corn ethanol. In addition, any replacement of federal incentives 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 investment to convert to the production of cellulosic ethanol. Additionally, 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 would have a significant adverse impact on our business.

Table of Contents

Any inability to maintain required regulatory permits may impede or completely prohibit our ability to successfully operate our plants. Additionally, any change in environmental and safety regulations, or violations thereof, could impede our ability to successfully operate our businesses.

Our ethanol production and agribusiness segments are subject to extensive air, water and other environmental regulation. We have had to obtain a number of environmental permits to construct and operate our 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 addition, the governing state agencies could impose conditions or other restrictions in the permits that are detrimental to us or which increase our costs above those required for profitable operations. Any such event could have a material adverse effect on our operations, cash flows and financial position.

Environmental laws and regulations, both at the federal and state level, are subject to change and changes can 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 if we have the proper permits at the present time, we may be required to invest or spend considerable resources to comply with future environmental regulations. Furthermore, ongoing plant operations are governed by the Occupational Safety and Health Administration, or OSHA. OSHA regulations may change in a way that increases the costs of operations at our plants. If any of these events were to occur, they could have a material adverse impact 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. Because we use and handle hazardous substances in our businesses, changes in environmental requirements or an unanticipated significant adverse environmental event could have a material adverse effect on our business. We cannot assure you that we have been, or will at all times be, in compliance with all environmental requirements, or that we 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, or exposure to, hazardous substances used, stored or disposed of by us, or contained in its products. We are also exposed to residual risk because some of our facilities and land may have environmental liabilities arising from their prior use. In addition, changes to environmental regulations may require us to modify existing plant and processing facilities and could significantly increase the cost of those operations.

Our business is affected by the regulation of greenhouse gases, or GHG, and climate change. New climate change regulations could impede our ability to successfully operate our business.

Our plants emit carbon dioxide as a by-product of the ethanol production process. 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. On February 3, 2010, the EPA released its final regulations on the Renewable Fuel Standard program, or RFS 2. We believe these final regulations grandfather our plants at their current operating capacity, though expansion of our plants will need to meet a threshold of a 20% reduction in GHG emissions from a 2005 baseline measurement for the ethanol over current capacity to be eligible for the RFS 2 mandate. Additionally, legislation is pending in Congress on a comprehensive carbon dioxide regulatory scheme, such as a carbon tax or cap-and-trade system. In order to expand capacity at our plants, we may have to apply for additional permits, install advanced technology such as corn oil extraction, or reduce drying of certain amounts of distillers grains. We may also be required to install carbon dioxide mitigation equipment or take other steps unknown to us at this time in order to comply with other future law or regulation. Compliance with future law or regulation of carbon dioxide, or if we choose to expand capacity at certain of our plants, compliance with then-current regulation of carbon dioxide, could be costly and may prevent us from operating our plants as profitably, which may have a material adverse impact on our operations, cash flows and financial position.

The California Air Resources Board has adopted a Low Carbon Fuel Standard requiring a 10% reduction in GHG emissions from transportation fuels by 2020. Additionally, an Indirect Land Use Change, or ILUC, component is included in the lifecycle GHG emissions calculation. While this standard is currently being challenged by various lawsuits, implementation of such a standard may have an adverse impact on our market for corn-based ethanol if it is determined that in California corn-based ethanol fails to achieve lifecycle GHG emission reductions.

Table of Contents

Our agribusiness business is subject to significant governmental and private sector regulations.

Our agribusiness operations are subject to government regulation and regulation by certain private sector associations, compliance with which can impose significant costs on our business. Failure to comply with such regulations can result in additional costs, fines or criminal action. Production levels, markets and prices of the grains we merchandise are affected by federal government programs, which include acreage control and price support programs of the U.S. Department of Agriculture, or USDA. In addition, grain that we sell must conform to official grade standards imposed by the USDA. Other examples of government policies that can have an impact on our business include tariffs, duties, subsidies, import and export restrictions and outright embargos. Changes in government policies and producer supports may impact the amount and type of grains planted, which in turn, may impact our ability to buy grain in our market region. Because a portion of our grain sales are to exporters, the imposition of export restrictions could limit our sales opportunities.

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

Within our agribusiness segment, we compete with other grain merchandisers, grain processors and end-users for the purchase of grain, as well as with other grain merchandisers, private elevator operators and cooperatives for the sale of grain. Many of our grain competitors are significantly larger and compete in more diverse markets, and our failure to compete effectively would impact our profitability.

We buy and sell various other commodities within our agribusiness division, some of which are readily traded on commodity futures exchanges. For example, we sell agronomy products to producers which necessitates the purchase of large volumes of fertilizer and chemicals for retail sale. Fixed-price purchase obligations and carrying inventories of these products subject us to the risk of market price fluctuations for periods of time between the time of purchase and final sale. Weather, economic, political, environmental and technological conditions and developments, both local and worldwide, as well as other factors beyond our control, can affect the supply and demand of these commodities and expose them to liquidity pressures due to rapidly rising or falling market prices. Changes in the supply and demand of these commodities can also affect the value of inventories held for resale, as well as the price of raw materials. Fluctuating costs of inventory and prices of raw materials could decrease operating margins and adversely affect profitability.

While our grain business hedges the majority of its grain inventory positions with derivative instruments to manage risk associated with commodity price changes, including purchase and sale contracts, we are unable to hedge all of the price risk of each transaction due to timing, unavailability of hedge contract counterparties and third-party credit risk. Furthermore, there is a risk that the derivatives we employ will not be effective in offsetting the changes associated with the risks we are attempting to manage. This can happen when the derivative and the hedged item are not perfectly matched. Our grain derivatives, for example, do not hedge the basis pricing component of our grain inventory and contracts. Basis is defined as the difference between the cash price of a commodity in one of our grain facilities and the nearest in time exchange-traded futures price. Differences can reflect time periods, locations or product forms. Although the basis component is smaller and generally less volatile than the futures component of grain market prices, significant unfavorable basis movement on grain positions as large as ours may significantly impact our profitability.

Our debt level could negatively impact our financial condition, results of operations and business prospects.

As of December 31, 2009, our total debt was \$457.0 million. Our level of debt could have significant consequences to our shareholders, including the following:

requiring the dedication of a substantial portion of cash flow from operations to make payments on debt, thereby reducing the availability of cash flow for working capital, capital expenditures and other general business activities;

requiring a substantial portion of our corporate cash reserves to be held as a reserve for debt service, limiting our ability to invest in new growth opportunities;

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

limiting the ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions and general corporate and other activities;

limiting the flexibility in planning for, or reacting to, changes in the business and industry in which we operate;

S-12

Table of Contents

increasing our vulnerability to both 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 that there may be no assets left for shareholders in the event of a liquidation; and

limiting our ability to make business and operational decisions regarding our business and subsidiaries, including, among other things, limiting our ability to pay dividends to our respective shareholders, 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 with respect to the variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income would decrease.

We operate in capital intensive businesses and rely on cash generated from operations and external financing. Limitations on access to external financing could adversely affect our operating results.

Some ethanol producers have faced financial distress recently, 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 generally. Construction of our plants and anticipated levels of required working capital were funded under long-term credit facilities. Increases in liquidity requirements could occur due to, for example, increased commodity prices. Our operating cash flow is dependent on our ability to profitably operate our businesses and overall commodity market conditions. In addition, we may need to raise additional financing to fund growth of our businesses. In this market environment, we may experience limited access to incremental financing. This could cause us to defer or cancel growth projects, reduce our business activity or, if we are unable to meet our debt repayment schedules, cause a default in our existing debt agreements. These events could have a materially adverse effect on our operations and financial position.

Our subsidiaries' debt facilities have ongoing payment requirements which we generally expect to meet from their operating cash flow. Our ability to repay current and anticipated future indebtedness will depend on our financial and operating performance and on the successful implementation of our business strategies. Our financial and operational performance will depend on numerous factors including prevailing economic conditions, volatile commodity prices, and financial, business and other factors beyond our control. If we cannot pay our debt service, we may be forced to reduce or delay capital expenditures, sell assets, restructure our indebtedness or seek additional capital. If we are unable to restructure our indebtedness or raise funds through sales of assets, equity or otherwise, our ability to operate could be harmed and the value of our stock could be significantly reduced.

We are a holding company, and there are limitations on our ability to receive distributions from our subsidiaries.

We conduct most of our operations through subsidiaries and are dependent upon dividends or other intercompany transfers of funds from our subsidiaries to generate free cashflow. Moreover, some of our subsidiaries are currently, or are expected in the future to be, limited in their ability to pay dividends or make distributions to us by the terms of their financing agreements. Consequently, we are not able to 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 a default on the loan by providing additional cash to that subsidiary, even if sufficient cash exists elsewhere in our consolidated organization.

Increased ethanol industry penetration by oil companies or other multinational companies may adversely impact our margins.

We operate in a very competitive environment. The ethanol industry is primarily comprised of smaller entities that engage exclusively in ethanol production and large integrated grain companies that produce ethanol along with their base grain businesses. We face competition for capital,

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

labor, corn and other resources from these companies. Until recently, oil companies, petrochemical refiners and gasoline retailers have not been engaged in ethanol production to a large

S-13

Table of Contents

extent. These companies, however, form the primary distribution networks for marketing ethanol through blended gasoline. During the past year, several large oil companies have entered the ethanol production market. If these companies increase their ethanol plant ownership or other oil companies seek to engage in direct ethanol production, there will be less of a need to purchase ethanol from independent ethanol producers like us. Such a structural change in the market could result in a material adverse effect on our operations, cash flows and financial position.

We operate in a highly competitive industry.

In the United States, we compete with other corn processors and refiners, including Archer-Daniels-Midland Company, POET, LLC and Valero Energy Corporation. Some of our competitors are divisions of larger enterprises and have greater financial resources than we do. Although some of our competitors are larger than we are, we also have many smaller competitors. Farm cooperatives comprised of groups of individual farmers have been able to compete successfully. As of December 31, 2009, the top ten domestic producers accounted for approximately 47% of all production. If our competitors consolidate or otherwise grow and we are unable to similarly increase our size and scope, our business and prospects may be significantly and adversely affected.

Our competitors also include plants owned by farmers who earn their livelihood through the sale of corn, and competitors whose primary business is oil refining and retail gasoline sales. Hence, these competitors may not be as focused on obtaining optimal value for their produced ethanol as we are.

Depending on commodity prices, foreign producers may produce ethanol at a lower cost than we can, which may result in lower ethanol prices which would adversely affect our financial results.

There is a risk of foreign competition in the ethanol industry. Brazil is currently the second largest ethanol producer in the world. Brazil's ethanol production is sugar-cane based, as opposed to corn based, and has historically been less expensive to produce. Other foreign producers may be able to produce ethanol at lower input costs, including costs of feedstock, facilities and personnel, than we can.

At present, there is a \$0.54 per gallon tariff on foreign ethanol. However, this tariff might not be sufficient to deter overseas producers from importing ethanol into the domestic market, resulting in depressed ethanol prices. It is also important to note that the tariff on foreign ethanol is the subject of ongoing controversy and disagreement amongst lawmakers. Many lawmakers attribute increases in food prices to growth in the ethanol industry. They see foreign competition in ethanol production as a means of reducing food prices. Additionally, the tariff on ethanol is controversial internationally because critics contend that it diverts corn from export and impedes Latin American agricultural development.

Ethanol produced or processed in numerous countries in Central America and the Caribbean region is eligible for tariff reduction or elimination upon importation to the United States under a program known as the Caribbean Basin Initiative. Large multinational companies have expressed interest in building dehydration plants in participating Caribbean Basin countries, such as El Salvador, which would convert ethanol into fuel-grade ethanol for shipment to the United States. Ethanol imported from Caribbean Basin countries may be a less expensive alternative to domestically produced ethanol. As a result, our business faces a threat from imported ethanol either from Brazil, even with the import tariff, or from a Caribbean Basin source. While transportation and infrastructure constraints may temper the market impact throughout the United States, competition from imported ethanol may affect our ability to sell our ethanol profitably, which may have a material adverse effect on our operations, cash flows and financial position.

If significant additional foreign ethanol production capacity is created, such facilities could create excess supplies of ethanol on world markets, which may result in lower prices of ethanol throughout the world, including the United States. Such foreign competition is a risk to our business. Further, if the tariff on foreign ethanol is ever lifted, overturned, reduced, repealed or expires, our ability to profitably compete with low-cost international producers could be impaired. Any penetration of ethanol imports into the domestic market may have a material adverse effect on our operations, cash flows and financial position.

Our success may depend 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 has placed, and is expected to continue to place, significant demands on our management, systems, internal controls and financial and

Table of Contents

physical resources. Much of our operations are decentralized at our various facilities, with many functions being performed at the local level. This requires us to expend significant resources implementing and monitoring compliance at the local level. In addition, we expect that we will need to further develop our financial and managerial controls and reporting systems to accommodate future growth. This will require us to incur expenses related to hiring additional qualified personnel, retaining professionals to assist in developing the appropriate control systems and expanding our information technology infrastructure. Our inability to manage growth effectively could have a material adverse effect on our results of operations, financial position and cash flows.

We may fail to realize all of the anticipated benefits of mergers and acquisitions that we have undertaken or may undertake because of integration challenges.

We have increased the size of our operations significantly through mergers and acquisitions and intend to continue to explore potential merger or acquisition opportunities. The anticipated benefits and cost savings of such mergers and acquisitions may not be realized fully, or at all, or may take longer to realize than expected. Acquisitions involve numerous risks, any of which could harm our business, including:

difficulties in integrating the operations, technologies, products, existing contracts, accounting processes and personnel of the target and realizing the anticipated synergies of the combined businesses;

risks relating to environmental hazards on purchased sites;

risks relating to acquiring or developing the infrastructure needed for facilities or acquired sites, including access to rail networks;

difficulties in supporting and transitioning customers, if any, of the target company;

diversion of financial and management resources from existing operations;

the purchase price or other devoted resources may exceed the value realized, or the value we could have realized if the purchase price or other resources had been allocated to another opportunity;

risks of entering new markets or areas in which we have limited or no experience, or are outside our core competencies;

potential loss of key employees, customers and strategic alliances from either our current business or the business of the target;

assumption of unanticipated problems or latent liabilities, such as problems with the quality of the target company's products; and

inability to generate sufficient revenue to offset acquisition costs and development costs.

We also may pursue growth through joint ventures or partnerships. Partnerships and joint ventures typically involve restrictions on actions that the partnership or joint venture may take without the approval of the partners. These types of provisions may limit our ability to manage a partnership or joint venture in a manner that is in our best interest but is opposed by our other partner or partners.

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Future acquisitions may involve the issuance of equity securities as payment or in connection with financing the business or assets acquired and, as a result, could dilute your ownership interest. In addition, additional debt may be necessary in order to complete these transactions, which could have a material adverse effect on our financial condition. The failure to successfully evaluate and execute acquisitions or joint ventures or otherwise 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 have had a history of operating losses and may incur future operating losses.

We have had a history of operating losses and may incur operating losses in the future, which could be substantial. Although we recently achieved profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis, which could result in a decrease in the trading price of our common stock.

S-15

Table of Contents

Our ability to use our net operating losses to offset future taxable income will be subject to certain limitations.

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, or the Internal Revenue Code, a corporation that undergoes an ownership change is subject to limitations on its ability to utilize its pre-change net operating losses, or NOLs, to offset future taxable income. Our existing NOLs will be subject to limitations arising from previous ownership changes, and if we undergo an ownership change in the future, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Furthermore, our ability to utilize NOLs of any companies that we may acquire in the future may be subject to limitations. As a result, if we earn net taxable income, our ability to use our pre-change net operating loss carryforwards to offset U.S. federal taxable income will be subject to limitations, which could potentially result in increased future tax liability to us.

Our ability to successfully operate is dependent on the availability of energy and water at anticipated prices.

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

Replacement technologies are under development that might result in the obsolescence of corn-derived ethanol or our process systems.

Ethanol is primarily an additive and oxygenate for blended gasoline. Although use of oxygenates is currently mandated, there is always the possibility that a preferred alternative product will emerge and eclipse the current market. Critics of ethanol blends argue that ethanol decreases fuel economy, causes corrosion of ferrous components and damages fuel pumps. Any alternative oxygenate product would likely be a form of alcohol (like ethanol) or ether (like MTBE). Prior to federal restrictions and ethanol mandates, MTBE was the dominant oxygenate. It is possible that other ether products could enter the market and prove to be environmentally or economically superior to ethanol. It is also possible that alternative biofuel alcohols such as methanol and butanol could evolve into ethanol replacement products.

Research is currently underway to develop other products that could directly compete with ethanol and may have more potential advantages than ethanol. Advantages of such competitive products may include, but are not limited to: lower vapor pressure, making it easier to add gasoline; energy content closer to or exceeding that of gasoline, such that any decrease in fuel economy caused by the blending with gasoline is reduced; an ability to blend at a higher concentration level for use in standard vehicles; reduced susceptibility to separation when water is present; and suitability for transportation in gas pipelines. Such products could have a competitive advantage over ethanol, making it more difficult to market our ethanol, which could reduce our ability to generate revenue and profits.

New ethanol process technologies may emerge that require less energy per gallon produced. The development of such process technologies would result in lower production costs. Our process technologies may become outdated and obsolete, placing us at a competitive disadvantage against competitors in the industry. The development of replacement technologies may have a material adverse effect on our operations, cash flows and financial position.

Our revenue from the sale of distillers grains depends upon its continued market acceptance as an animal feed.

Distillers grains is a co-product from the fermentation of various crops, including corn, to produce ethanol. The U.S. Food and Drug Administration, or FDA, Center for Veterinary Medicine has expressed concern about potential animal and human health hazards from the use of distillers grains as an animal feed. As a result, the market value of this co-product could be diminished if the FDA were to introduce regulations that limit the sale of distillers grains in the domestic market or for export to international markets, which in turn would have a negative impact on our profitability. In addition, if public perception of 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 would be negatively impacted, which would have a negative impact on our profitability.

Table of Contents

Our operating results may suffer if our marketing and sales efforts are not effective.

We have established our own marketing, transportation and storage infrastructure. We lease tanker railcars and have contracted with storage depots near our customers and at strategic locations for efficient delivery of our finished ethanol product. We have also hired a marketing and sales force, as well as logistical and other operational personnel to staff our distribution activities. The marketing, sales, distribution, transportation, storage or administrative efforts we have implemented may not achieve expected results. Any failure to successfully execute these efforts would have a material adverse effect on our results of operations and financial position. Our financial results also may be adversely affected by our need to establish inventory in storage locations to fulfill our marketing and distribution contracts.

We are exposed to credit risk resulting from the possibility that a loss may occur from the failure of our contractual counterparties to perform according to the terms of our agreements.

In selling ethanol and distillers grains, we may experience concentrations of credit risk from a variety of customers, including major integrated oil companies, large independent refiners, petroleum wholesalers, other marketers and jobbers. We are also exposed to credit risk resulting from sales of grain to large commercial buyers, including other ethanol plants. Our fixed-price forward contracts also result in credit risk when prices change significantly prior to delivery. We continually monitor this credit risk exposure. In addition, we may prepay for or make deposits on undelivered inventories. Concentrations of credit risk with respect to inventory advances are primarily with a few major suppliers of petroleum products and agricultural inputs. The inability of a third party to make payments to us for our accounts receivable or to provide inventory to us on advances made may cause us to experience losses and may adversely impact our liquidity and our ability to make our payments when due.

A loss may occur from the failure of our counterparties to perform according to the terms of their marketing agreements.

Under our third-party marketing agreements, we purchase all of our third-party producers' ethanol production. In turn, we sell the ethanol in various markets for future deliveries. Under these marketing agreements, the third-party producers are not obligated to produce any minimum amount of ethanol, and we cannot assure you that we will receive the full amount of ethanol that the third-party plants are expected to produce. The interruption or curtailment of production could cause us to be unable to deliver quantities of ethanol sold under the contracts. As a result, we may be forced to purchase replacement quantities of ethanol at higher prices to fulfill these contractual obligations.

We are exposed to potential business disruption from factors outside our control, including natural disasters, seasonality, severe weather conditions, accidents, and unforeseen plant shutdowns, any of which could adversely affect our cash flows and operating results.

Potential business disruption in available transportation due to natural disasters, significant track damage resulting from a train derailment, or strikes by our transportation providers could result in delays in procuring and supplying raw materials to our ethanol or grain facilities, or transporting ethanol and distillers grains to our customers. We also run the risk of unforeseen operational issues that may result in an extended plant shutdown. Such business disruptions would cause the normal course of our business operations to stall and may result in our inability to meet customer demand or contract delivery requirements, as well as the potential loss of customers.

Many of our grain business activities, as well as corn procurement for our ethanol plants, are dependent on weather conditions. Adverse weather may result in a reduction in the sales of fertilizer or pesticides during typical application periods, a reduction in grain harvests caused by inadequate or excessive amounts of rain during the growing season, or by overly wet conditions, an early freeze or snowy weather during the harvest season. Additionally, corn stored in an open pile may become damaged by too much rain and warm weather before the corn is dried, shipped, consumed or moved into a storage structure.

Table of Contents

Casualty losses may occur for which we have not secured adequate insurance.

We have acquired insurance that we believe to be adequate to prevent loss from foreseeable risks. However, events occur for which no insurance is available or for which insurance is not available on terms that are acceptable to us. Loss from such an event, such as, but not limited to, earthquake, tornados, war, riot, terrorism or other risks, may not be insured and such a loss may have a material adverse effect on our operations, cash flows and financial position.

Our Obion, Tennessee plant is located within a recognized seismic zone. The design of this facility has been modified to fortify it to meet structural requirements for that region of the country. We have also obtained additional insurance coverage specific to earthquake risk for this plant. However, there is no assurance that this facility would remain in operation if a seismic event were to occur.

If our internal computer network and applications suffer disruptions or fail to operate as designed, our operations will be disrupted and our business may be harmed.

We rely on network infrastructure and enterprise applications, and internal technology systems for our operational, marketing support and sales, and product development activities. The hardware and software systems related to such activities are subject to damage from earthquakes, floods, lightning, tornadoes, fire, power loss, telecommunication failures and other similar events. They are also subject to acts such as computer viruses, physical or electronic vandalism or other similar disruptions that could cause system interruptions and loss of critical data, and could prevent us from fulfilling our customers' orders. We cannot assure you that any of our backup systems would be sufficient. Any event that causes failures or interruption in our hardware or software systems could result in disruption of our business operations, have a negative impact on our operating results, and 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 personnel. For each of our plants, qualified managers, engineers, operations and other personnel must be hired, which can be challenging in a rural community. Competition for both managers and plant employees in the ethanol industry is intense, and we may not be able to attract and retain qualified personnel. If we are unable to hire and retain productive and competent personnel, the amount of ethanol we produce may decrease and we may not be able to efficiently operate our ethanol plants and execute our business strategy.

Risks relating to the offering and ownership of our common stock

We have broad discretion in the use of the net proceeds from this offering, and we may not use these proceeds effectively.

Our management will have considerable discretion in the application of the net proceeds of this offering, and you will not have the opportunity, as part of your investment decision, to assess whether we are using the proceeds effectively. We intend to use the net proceeds for general corporate purposes. While we do not currently have any binding commitments or definitive agreements to enter into potential acquisitions, we may also use a portion of the net proceeds to acquire or invest in additional facilities, assets or technologies that we believe further our growth strategy. Despite these efforts, we may not be able to increase our profitability or the market value of our common stock. Accordingly, investors in this offering will be relying on management's judgment with only limited information about our specific intentions regarding substantially all of the net proceeds of this offering.

The price of our common stock may be volatile.

The trading price of our common stock may be highly volatile and could be subject to fluctuations in response to a number of factors beyond our control. Some of these factors are:

our results of operations and the performance of our competitors;

the public's reaction to our press releases, other public announcements and filings with the SEC;

changes in earnings estimates or recommendations by research analysts who follow us or other companies in our industry;

changes in general economic conditions;

S-18

Table of Contents

changes in market prices for our products or for our raw materials;

actions of our historical equity investors, including 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. These fluctuations may be unrelated to the operating performance of particular companies. These broad market fluctuations may cause declines in the market price of our common stock. The price of our common stock could fluctuate based upon factors that have little or nothing to do with us or our performance, and those fluctuations could materially reduce our common stock price.

Our principal shareholders have substantial influence over us and they may make decisions with which you disagree.

Following this offering, subsidiaries of NTR, plc, Wilon Holdings, S.A., and Wayne Hoovestol, a director and our former Chief Executive Officer, will beneficially own 36.9%, 6.8% and 3.1%, respectively, of our outstanding common stock. NTR, Wilon and Mr. Hoovestol have entered into a Shareholders Agreement with us, in which NTR has the right to designate four individuals to be nominated to our board, so long as it owns more than 33.5% of our outstanding stock, and Wilon has the right to designate one individual to be nominated to our board, so long it holds more than 2.5% of our outstanding stock. NTR, Wilon and Mr. Hoovestol have agreed to vote for such nominees at any meeting of shareholders for the purpose of electing directors. As a result, these persons have the ability to control the composition of our Board of Directors and significantly influence other matters requiring shareholder approval including mergers and other significant transactions. These shareholders may have interests that differ from yours, and they may vote in a way with which you disagree and that may be adverse to your interests. This concentration of ownership could present or delay a change of control of us or deprive shareholders of a right to receive a premium for their shares as part of our sale, which could also affect the market price of our common stock.

A significant percent of our outstanding voting stock is held by a concentrated number of shareholders which could impact your liquidity.

Following this offering, 49.8% of our outstanding common stock will continue to be held by NTR, Wilon, and our executive officers and directors. Continued concentrated ownership could result in fewer shares being available to be traded in the market, resulting in reduced liquidity. In addition, a decision by one or more large shareholder to liquidate its holdings could adversely affect the trading price of our stock.

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

Our second amended and restated articles of incorporation, our amended and restated bylaws and Iowa law contain anti-takeover provisions that could have the effect of delaying or preventing changes in control of us or our management. These provisions could also discourage proxy contests and make it more difficult for our shareholders to elect directors

Table of Contents

and take other corporate actions without the concurrence of our management or Board of Directors. The provisions in our charter documents include the following:

a classified Board of Directors pursuant to which our directors are divided into three classes, with three-year staggered terms;

members of our Board of Directors can only be removed for cause by shareholders with the affirmative vote of not less than two-thirds of the outstanding shares of capital stock;

shareholder action may be taken only at a special or annual meeting, and not by any written consent, except where required by Iowa law;

our bylaws provide that certain transactions, including a merger or the sale of substantially all of our assets, if approved by fewer than seven of ten board members, must also be approved by the affirmative vote of 80% of the shares outstanding, which provision is effective until we have issued, after the effective date of the bylaws (October 15, 2008), an aggregate of 6,000,000 shares of common stock to non-affiliates;

our bylaws restrict our shareholders' ability to make proposals at shareholder meetings; and

our Board of Directors has the ability to cause us to issue authorized and unissued shares of stock from time to time. We are subject to the provisions of the Iowa Business Corporations Act, or IBCA, under which, certain business combinations between an Iowa corporation whose stock is publicly traded or held by more than 2,000 shareholders and an interested shareholder are prohibited for a three-year period following the date that such a shareholder became an interested shareholder unless certain exemption requirements are met. In addition, certain other provisions of the IBCA may have anti-takeover effects in certain situations.

The foregoing items may discourage transactions that otherwise could provide for the payment of a premium over prevailing market prices of our common stock and also could limit the price that investors are willing to pay in the future for shares of our common stock.

Non-U.S. holders may be subject to U.S. income tax with respect to gain on disposition of their common stock.

If we are or have been a U.S. real property holding corporation, or USRPHC, under the Internal Revenue Code at any time within the shorter of the five-year period preceding a disposition of common stock by a non-U.S. holder or such holder's holding period of the stock disposed of, such non-U.S. holder may be subject to U.S. federal income tax with respect to gain on such disposition. Because the determination of whether we are a USRPHC depends on the fair market value of our U.S. real property interests relative to the fair market value of our other trade or business assets and our non-U.S. real property interests, there can be no assurance that we are not a USRPHC or will not become one in the future.

Table of Contents

Use of Proceeds

We will receive net proceeds from this offering of approximately \$68.8 million after deducting the underwriting discounts and commissions and our estimated offering expenses, or approximately \$79.3 million if the underwriters exercise their overallotment option in full.

We intend to use the net proceeds of this offering for general corporate purposes. While we currently do not have any binding commitments or definitive agreements to enter into potential acquisitions, we may also use a portion of the net proceeds to acquire or invest in additional facilities, assets or technologies that we believe further our growth strategy. Pending our use of the net proceeds, we intend to invest these net proceeds in short-term investment-grade, interest bearing securities.

S-21

Table of Contents**Capitalization**

The following table sets forth our capitalization as of December 31, 2009:

on an actual basis; and

on an as adjusted basis, giving effect to our sale of 5,500,000 shares of common stock at a public offering price of \$13.50 per share, and after deducting the underwriting discounts and commission and estimated offering expenses payable by us.

You should read this table in conjunction with our consolidated financial statements, including accompanying notes, incorporated by reference in this prospectus supplement and the accompanying prospectus. You should also read this table in conjunction with the section entitled "Use of Proceeds" and our consolidated financial statements and the related notes thereto, which are incorporated by reference herein from our Annual Report on Form 10-K for the year ended December 31, 2009.

(In thousands except per share amounts)	As of December 31, 2009	
	Actual	As Adjusted (Unaudited)
Cash and cash equivalents	\$ 89,779	\$ 158,574
Stockholders' equity		
Common stock, \$.001 par value; 50,000,000 shares authorized; 24,957,378 issued and outstanding, actual; 30,457,378 issued and outstanding, as adjusted	\$ 25	\$ 30
Additional paid-in capital	292,231	361,021
Retained earnings	9,331	9,331
Accumulated other comprehensive loss	(123)	(123)
Noncontrolling interests	9,244	9,244
Total stockholders' equity	\$ 310,708	\$ 379,503

The information in the table above excludes the following as of December 31, 2009:

1,162,934 shares of common stock issuable upon the exercise of outstanding options at a weighted-average exercise price of \$15.27 per share;

692,005 shares of common stock available for issuance under our 2009 Equity Incentive Plan; and

327,256 shares of unvested restricted stock and deferred stock units.

S-22

Table of Contents

Our Business

Overview

We are a leading, vertically-integrated producer of ethanol. We have grown rapidly, primarily through acquisitions, and today we have operations throughout the ethanol value chain. Our operations begin upstream with our agronomy and grain handling operations, continue through our approximately 480 million gallons per year, or mmgy, of ethanol production capacity and end downstream with our ethanol marketing, distribution and blending facilities. We focus on generating stable operating margins through our diversified business segments and our risk management strategy. We believe that owning and operating assets throughout the ethanol value chain enables us to mitigate the effects of changes in commodity prices on our profitability and differentiates us from companies focused only on ethanol production. Following is our visual presentation of the ethanol value chain:

Our disciplined risk management strategy is designed to lock in operating margins by forward contracting the four primary commodities involved in ethanol production: corn, natural gas, ethanol and distillers grains. We also seek to maintain an environment of continuous operational improvement to increase our efficiency and effectiveness as a low-cost producer of ethanol.

Currently, we operate within the three segments outlined below:

Ethanol Production. We operate a total of six ethanol plants in Indiana, Iowa, Nebraska and Tennessee, with approximately 480 mmgy of total ethanol production capacity. At capacity, our plants collectively will consume approximately 175 million bushels of corn and produce approximately 1.5 million tons of distillers grains annually. We are focused on maximizing the operational efficiency at each of our plants in order to achieve the lowest cost per gallon of ethanol produced.

Agribusiness. We operate three lines of business within our agribusiness segment: bulk grain, agronomy and petroleum. In our bulk grain business, we have total storage capacity of approximately 18.6 million bushels. We sell fertilizer and other agricultural inputs and provide application services to area producers through our agronomy business. Additionally, we sell petroleum products including diesel, soydiesel, blended gasoline and propane, primarily to agricultural producers and consumers. We believe our bulk grain business provides synergies with our ethanol production segment as it supplies a portion of the feedstock for our ethanol plants.

Marketing and Distribution. Our in-house, fee-based marketing business is responsible for the sales, marketing and distribution of all ethanol and distillers grains produced at our six plants. We also market and distribute ethanol for four third-party ethanol producers with expected production totaling approximately 360 mmgy. Additionally, we hold a majority interest in Blendstar, LLC, which operates nine blending or terminaling facilities with approximately 495 mmgy of total throughput capacity in seven states in the south central United States.

Our Competitive Strengths

We believe we have created a platform that diversifies our revenues and income stream. Fundamentally, we focus on managing commodity price risks, improving operating efficiencies and controlling costs. We believe our competitive strengths include:

Disciplined Risk Management. We believe risk management is a core competency of ours. Our primary focus is to lock in favorable operating margins whenever possible. We do not speculate on general price movements by taking unhedged

Table of Contents

positions on commodity products such as corn or natural gas. Our comprehensive risk management platform allows us to monitor real-time commodity price risk exposure at each of our plants, and to respond quickly to lock in acceptable margins. By using a variety of risk management tools and hedging strategies, including our internally-developed real-time operating margin management system, we believe we are able to maintain a disciplined approach to risk management.

Demonstrated Asset Acquisition and Integration Capabilities. We have demonstrated the ability to make strategic acquisitions that we believe create synergies with our vertically-integrated platform. Our belief is that acquiring and developing complementary businesses enhances our ability to mitigate risks. Our balance sheet allows us to be selective in that process. Since our inception, we have acquired or developed six ethanol plants in addition to upstream grain elevators and agronomy businesses and downstream blending and distribution businesses. We believe these acquisitions have been successfully integrated into our business and have enhanced our overall returns.

Focus on Operational Excellence. Five of our six plants were built by Fagen Inc. using industry-leading ICM technology and all of our plants are staffed by experienced industry personnel. We focus on incremental operational improvements to enhance overall production efficiencies and we share operational knowledge across our plants. Using real-time production data and control systems, we continually monitor our plants in an effort to optimize performance. We believe our ability to improve operating efficiencies provides an operating cost advantage over most of our competitors. In turn, we believe we are well positioned to increase operating margins for any facilities that we may acquire in the future.

Leading Vertically-Integrated Ethanol Producer. We believe our operations throughout the ethanol value chain reduce our commodity and operating risks, and increase our pricing visibility and influence in key markets. Combined, we believe our agribusiness, ethanol production, and marketing and distribution businesses give us efficiencies across the ethanol value chain, from grain procurement to blending fuel. Our agribusiness operations help to reduce our supply risk by providing grain handling and storage capabilities for approximately 18.6 million bushels. Assuming full production capacity at each of our plants and those of our third-party ethanol producers, we would market approximately 840 mmgy of ethanol from ten plants. Our majority interest in Blendstar allows us to source, store, blend and distribute ethanol and biodiesel across multiple states.

Proven Management Team. Our senior management team brings an average of 20 years of commodity risk management and related industry experience. We have specific expertise across all aspects of the ethanol supply, production, and distribution chain from agribusiness, to plant operations and management, to commodity markets and risk management, to ethanol marketing.

Our Growth Strategy

We intend to continue to focus on strengthening and diversifying our vertically-integrated platform by implementing the following growth strategies:

Develop or Acquire Strategically-Located Grain Elevators. We intend to pursue opportunities to develop or acquire additional grain elevators within the agribusiness segment, specifically those located near our ethanol plants. We believe that owning additional grain elevators in close proximity to our ethanol plants enables us to strengthen relationships with local corn producers, allowing us to source corn more effectively and at a lower average cost. Since all of our plants are located within or near the corn belt where a number of competitors also have ethanol facilities, we believe that owning grain elevators provides us with a competitive advantage in the origination of corn.

Pursue Consolidation Opportunities within the Ethanol Industry. We continue to focus on the potential acquisition of additional ethanol plants. Throughout 2009, we were approached with opportunities to acquire existing ethanol plants. We believe those plants were available for a number of reasons including financial distress of a particular facility, a lack of operational expertise or a desire by existing owners to exit their original investment. We will continue to take a disciplined approach in evaluating new opportunities by considering whether the plants fit within the design, engineering and geographic criteria we have developed. We believe that our integrated platform, plant operations experience and disciplined risk management approach give us the ability to generate favorable returns from our acquisitions.

Improve Operational Efficiency. We seek to enhance profitability at each of our plants by increasing our production volumes through operational improvements. We continually research operational processes that may increase our efficiency by increasing yields, lowering our processing cost per gallon and increasing our production volumes. Additionally, we employ an extensive cost control system at each of our plants to continuously monitor our plants

Table of Contents

performance. We are able to use performance data from our plants to develop strategies for cost reduction and efficiency that can be applied across our platform.

Expand Our Third-Party Marketing Volumes. We plan to continue to grow our downstream access to customers and are actively looking at new marketing opportunities with other ethanol producers. We maintain active dialogues with prospective ethanol producers whose location, production and risk management practices are consistent with our vertically-integrated platform. We believe that further expansion of our third-party marketing volumes will enable us to continue to meet major ethanol customers' needs by providing us with a broader market presence and allowing us to further leverage our marketing expertise and distribution systems.

Invest in Next Generation Biofuel Opportunities. We plan to continue our investment in the BioProcessAlgae joint venture, which is focused on developing technology to grow and harvest algae, which consume carbon dioxide, in commercially viable quantities. We believe this technology has specific applications with facilities, including ethanol plants, that emit carbon dioxide. The algae produced has the potential to be used for advanced biofuel production, high quality animal feed or as biomass for energy production.

Ethanol Industry Overview

The ethanol industry has grown significantly over the past several years, with production increasing from 1.4 billion gallons in 1998 to 10.6 billion gallons for the twelve months ended November 30, 2009, according to the U.S. Energy Information Administration. This represents a compound annual growth rate of approximately 20%. While the market prices for feedstock commodities are volatile and at times results in unprofitable ethanol operations, since January 2008, we believe there have been few occasions where the simple crush spread, which we define as the sale of 2.8 gallons of ethanol less the cost of one bushel of corn (which represents the typical industry yield), has dropped below \$0.10 per gallon. We believe that ethanol will continue to experience increased demand in the United States as there remains a focus on reducing reliance on petroleum-based transportation fuels due to high and volatile oil prices, heightened environmental concerns, and energy independence and national security concerns. Also according to the U.S. Energy Information Administration, ethanol blends accounted for approximately 7.7% of the U.S. gasoline supply for the twelve months ended November 30, 2009. We believe ethanol's environmental benefits, ability to improve gasoline performance, fuel supply extender capabilities, attractive production economics and favorable government incentives could enable ethanol to comprise an increasingly larger portion of the U.S. fuel supply as more fully described below:

Emissions Reduction. Ethanol demand increased substantially in the 1990's, when federal law began requiring the use of oxygenates in reformulated gasoline in cities with unhealthy levels of air pollution on a seasonal or year-round basis. These oxygenates included ethanol and MTBE which, when blended with gasoline, reduces vehicle emissions. Although the federal oxygenate requirement was eliminated in May 2006, oxygenated gasoline continues to be used in order to help meet separate federal and state air emission standards. The refining industry has all but abandoned the use of MTBE making ethanol the primary clean air oxygenate currently used.

Octane Enhancer. Ethanol, with an octane rating of 113, is used to increase the octane value of gasoline with which it is blended, thereby improving engine performance. It is used as an octane enhancer both for producing regular grade gasoline from lower octane blending stocks and for upgrading regular gasoline to premium grades.

Fuel Stock Extender. Ethanol is a valuable blend component that is used by refiners to extend fuel supplies. According to the Energy Information Administration, while domestic petroleum refinery output has increased by approximately 29% from 1980 to 2008, domestic gasoline consumption has increased 36% over the same period. By blending ethanol with gasoline, refiners are able to expand the volume of the gasoline they are able to sell.

E15 Blending Waiver. On March 6, 2009, Growth Energy, an ethanol industry trade association, and 54 ethanol producers requested that the EPA approve the use of up to 15% ethanol blended with gasoline. The EPA has not yet granted the requested waiver although it has indicated that increasing the allowable percentage of ethanol blended in the U.S. gasoline supply could be an important step towards the long-term introduction of more renewable fuels into the transportation sector. We believe that increasing the ethanol blended in the domestic gasoline supply could have a positive impact on the demand for ethanol.

Economics of Ethanol Blending. We believe that the costs ethanol producers incur in producing a gallon of ethanol currently are lower than the costs refiners incur in producing a gallon of petroleum-based gasoline. Ethanol's favorable production economics are further enhanced by the blender's tax credit, which can be captured by refiners or passed on to consumers for a benefit of \$0.45 per gallon of ethanol.

S-25

Table of Contents

Mandated Use of Renewable Fuels. In addition to the blender's tax credit, the growth in ethanol usage has also been supported by legislative requirements dictating the use of renewable fuels, including ethanol. The Energy Independence and Security Act of 2007, confirmed by the EPA regulations on RFS 2, issued on February 3, 2010 mandated a minimum usage of corn-derived renewable fuels of 10.5 billion gallons in 2009 and 12.0 billion gallons in 2010. The upper mandate for corn-based ethanol is 15.0 billion gallons by 2015.

Our Operating Segments

Ethanol Production Segment

Our ethanol production segment has the capacity to produce approximately 480 mmgy of ethanol. Our ethanol plants also produce co-products such as wet, modified wet or dried distillers grains. Processing at full capacity, our plants will consume approximately 175 million bushels of corn and produce approximately 1.5 million tons of distillers grains annually. Our plants use a dry mill process to produce ethanol and co-products. We operate each of our six ethanol plants through separate wholly-owned operating subsidiaries. A summary of these plants is outlined below:

Plant	Plant Production Capacity (mmgy)	Start Date	Technology	Land Owned (acres)	On Site Corn Storage Capacity (bushels)
Bluffton, Indiana	110	Sept. 2008	ICM	419	1,040,000
Central City, Nebraska ⁽¹⁾	100	July 2009	ICM	40	1,200,000
Obion, Tennessee ⁽²⁾	110	Nov. 2008	ICM	230	2,100,000
Ord, Nebraska ⁽¹⁾	50	July 2009	ICM	170	400,000
Shenandoah, Iowa	55	Aug. 2007	ICM	108	500,000
Superior, Iowa	55	July 2008	Delta-T	264	525,000

(1) These plants operated under different ownership prior to the stated start date.

(2) We lease an additional 129 acres of land near the Obion, Tennessee plant.

Corn Feedstock and Ethanol Production

Ethanol is a chemical produced by the fermentation of carbohydrates found in grains and other biomass. Ethanol can be produced from a number of different types of grains, such as corn, wheat and sorghum, as well as from agricultural waste products such as rice hulls, cheese whey, potato waste, brewery and beverage wastes and forestry and paper wastes. At present, the majority of ethanol in the United States is produced from corn because corn contains large quantities of carbohydrates, can be handled efficiently and is in greater supply than other grains. Such carbohydrates convert into glucose more easily than most other kinds of biomass. Outside the United States, sugarcane is the primary feedstock used in ethanol production.

Our plants use corn as feedstock in the dry mill ethanol production process. Each of our plants require, depending on their production capacity, 20 million to 40 million bushels of corn annually. The price and availability of corn are subject to significant fluctuations depending upon a number of factors that affect commodity prices in general, including crop conditions, weather, governmental programs and foreign purchases. Because the market price of ethanol is not directly related to corn prices, ethanol producers are generally not able to compensate for increases in

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

the cost of corn feedstock through adjustments to prices charged for their ethanol.

Our corn supply is obtained primarily from local markets. We utilize cash and forward fixed-price contracts with grain producers and elevators for the physical delivery of corn to our plants. At our Nebraska and Iowa plants, we maintain relationships with local farmers, grain elevators and cooperatives which serve as our primary sources of grain feedstock. Most farmers in the areas where our plants are located have stored their corn in their own dry storage facilities, which allows us to purchase much of the corn needed to supply our plants directly from farmers throughout the year. At our Bluffton plant, we have contracted with a third-party grain originator to supply all of our corn requirements for ethanol production and that contract terminates in September 2013. At our Obion plant, we have entered into two origination agreements with third parties for the majority of our corn needs, one of which will terminate in August 2010. Each of our plants is also situated on rail lines that we can use to receive corn from other regions of the country if local corn supplies are insufficient.

S-26

Table of Contents

Corn is received at the plant by truck or rail, which is then weighed and unloaded in a receiving building. Storage bins are utilized to inventory grain, which is passed through a scalper to remove rocks and debris prior to processing. Thereafter, the corn is transported to a hammer mill where it is ground into a coarse flour and conveyed into a slurry tank for enzymatic processing. Water, heat and enzymes are added to convert the complex starch molecule into simpler carbohydrates. The slurry is heated to reduce the potential of microbial contamination and pumped to a liquefaction tank where additional enzymes are added. Next, the grain slurry is pumped into fermenters, where yeast, enzymes, and nutrients are added, to begin a batch fermentation process. A beer column, within the distillation system, separates the alcohol from the spent grain mash. Alcohol is then transported through a rectifier column, a side stripper and a molecular sieve system where it is dehydrated to 200 proof. The 200 proof alcohol is then pumped to a holding tank and then blended with approximately two percent denaturant (usually natural gasoline) as it is pumped into finished product storage tanks.

Co-Products

The spent grain mash from the beer column is pumped into one of several decanter type centrifuges for dewatering. The water, or thin stillage, is pumped from the centrifuges and then to 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. The wet cake is dried at varying degrees, resulting in the production of distillers grains. Syrup might be reapplied to the wet cake prior to drying, providing nutrients if the distillers grains are to be used as animal feed. Distillers grains, the principal co-product of the ethanol production process, are principally used as high-protein, high-energy animal fodder and feed supplements marketed to the dairy, beef, swine and poultry industries. Distillers grains have alternative uses as burning fuel, fertilizer and weed inhibitors.

Dry mill ethanol processing potentially creates three forms of distillers grains, depending on the number of times the solids are passed through the dryer system: wet, modified wet and dried distillers grains. Wet distillers grains are processed wet cake that contains approximately 65% to 70% moisture. Wet distillers grains have a shelf life of approximately three days and can be sold only to dairies or feedlots within the immediate vicinity of an ethanol plant. Modified wet distillers grains, which have been dried further to approximately 50% to 55% moisture, have a slightly longer shelf life of approximately three weeks and are marketed to regional dairies and feedlots. 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 regardless of its proximity to an ethanol plant.

Utilities

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

Natural Gas. Ethanol plants produce process steam from their own boiler systems and dry the distillers grains co-product via a direct gas-fired dryer. Depending on certain production parameters, our ethanol plants are expected to use approximately 20,000 to 34,000 British Thermal Units, of natural gas per gallon of production. The price of natural gas can be volatile; therefore we use hedging strategies to mitigate increases in gas prices. We have entered into certain service agreements for the natural gas required by our ethanol plants and pay tariff fees to these providers for transporting the gas through their pipelines to our plants.

Electricity. Our plants require between 0.48 and 1.10 kilowatt hours of electricity per gallon of production. Local utilities supply necessary electricity to all of our ethanol plants at market-based rates.

Water. Although some of our plants expect to satisfy the majority of their water requirements from wells located on their respective properties, each anticipates that it will obtain potable water for certain processes from local municipal water sources at prevailing rates. Each facility operates a filtration system to purify the well water that is utilized for its operations. Local municipalities supply all of the necessary water for our plants that do not have onsite wells. Water quality is very important. Much of the water used in an ethanol plant is recycled back into the process. The plants require boiler makeup water and cooling tower water. Boiler makeup water is treated on-site to minimize minerals and substances that would harm the boiler. Recycled process water cannot be used for this purpose. Cooling tower water is deemed non-contact water (it does not come in contact with the mash) and, therefore, can be regenerated back into the cooling tower process.

Table of Contents

Agribusiness Segment

We operate our agribusiness segment primarily through our wholly-owned subsidiary, Green Plains Grain Company LLC, which is a grain and farm supply business with three primary operating lines of business: bulk grain, agronomy and petroleum. We believe our agribusiness operations increase our operational efficiency, reduce commodity price and supply risks, and diversify our revenue streams.

Bulk Grain. We buy bulk grain, primarily corn and soybeans, from area producers and provide grain drying and storage services to those producers. The grain is then sold to grain processing companies and area livestock producers. We have grain storage capacity of approximately 18.6 million bushels, not including the on-site storage capacity at each of our plants. This capacity supports our grain merchandising activities and our Superior ethanol plant operations. These bulk grain commodities are readily traded on commodity exchanges and inventory values are affected by market changes and spreads. To attempt to reduce risk due to market fluctuations from purchase and sale commitments, we enter into exchange-traded futures and options contracts designed to serve as economic hedges.

Agronomy. We have agronomists on staff who consult and provide services to approximately 1,800 customers. The agronomy division also sells dry and liquid fertilizer and agricultural inputs, such as chemicals, seed and supplies that we buy wholesale, and provides application services to area producers. Having these experts on staff, coupled with the wide variety of agricultural products we offer, allows us to provide customized attention and build long-term relationships with our customers.

Petroleum. A portion of our business consists of selling diesel, soydiesel, blended gasoline and propane that we buy wholesale, primarily to agricultural producers and consumers. We believe this business line demonstrates our ability to provide a range of fuel products that support the local communities in which we are located.

We own approximately 134 acres of land in seven locations in Northwest Iowa, near our Superior ethanol plant, for our agribusiness operations with licensed grain storage capacity of approximately 15.8 million bushels, 3.6 million gallons of liquid fertilizer storage and 12,000 tons of dry fertilizer storage. We also own approximately 11 additional acres of land at our grain elevator in Essex, Iowa, near our Shenandoah ethanol plant, with licensed grain storage capacity of approximately 2.8 million bushels.

Seasonality is present within our agribusiness operations. The spring planting and fall harvest periods have the largest seasonal impact, directly impacting the quarterly operating results of our agribusiness segment. This seasonality generally results in higher revenues and stronger financial results for this segment during the second and fourth quarters while the financial results of the first and third quarters generally will reflect periods of lower activity with low to negative margins.

Marketing and Distribution Segment

We have an in-house, fee-based marketing business, Green Plains Trade Group LLC, which is responsible for the sales, marketing and distribution of all ethanol and distillers grains produced at our six production facilities. We also market and distribute ethanol for four third-party ethanol producers. Assuming full production capacity at each of our plants and those of our third-party ethanol producers, we would market approximately 840 mmgy of ethanol from ten plants. Our majority interest in Blendstar allows us to source, store, blend and distribute biodiesel and ethanol, including our production and that of other producers, across multiple states.

Marketing

We market our ethanol and that of our third-party producers to many different customers on a local, regional and national basis. Local markets are the easiest to service because of their close proximity to the related production facility. To achieve the best prices for the ethanol that we market, we sell into local, regional and national markets under sales agreements with integrated energy companies, jobbers, retailers, traders and resellers. Under these agreements, ethanol is priced under fixed and indexed pricing arrangements. Deliveries to the majority of the local markets, within 150 miles of the plants, are generally transported by truck, and deliveries to more distant markets are shipped by rail using major U.S. rail carriers.

The market for distillers grains generally consists of local markets for wet, modified wet and dried distillers grains, and national markets for dried distillers grains. If all of our distillers grains were marketed in the form of dried distillers grains, we expect that our ethanol plants would produce approximately 1.5 million tons of distillers grains annually. In

Table of Contents

addition, the market can be segmented by geographic region and livestock industry. The bulk of the current demand is for dried distillers grains delivered to geographic regions without significant local corn or ethanol production. Our market strategy includes shipping a substantial amount of distillers grains as dried distillers grains to regional and national markets by rail.

Most of our modified wet distillers grains are sold to midwestern feedlot markets. Our dried distillers grains are generally shipped to feedlot and poultry markets, as well as to Texas and west coast rail markets. Some of our distillers grains are shipped by truck to dairy, beef, and poultry operations in the eastern United States. Also, at certain times of the year, we transport product to the Mississippi River to be loaded on barges destined for export markets. We also ship by railcars into Eastern and Southeastern feed mill, poultry and dairy operations, as well as to domestic trade companies. Access to these markets allows us to move product into markets that are offering the highest net price.

Transportation and Delivery

Four of our plants are designed with unit-train load out capabilities and all have access to railroad mainlines. To meet the challenge of marketing ethanol and distillers grains to diverse market segments, five of our plants have extensive rail siding capable of handling more than 150 railcars at their production facilities while the sixth plant has rail siding that can accommodate approximately 90 railcars. At certain of our locations, we have large loop tracks which enable loading of unit trains of both ethanol and dried distillers grains, as well as spurs connecting the site's rail loop to the railroad mainline or spurs that allow movement and storage of railcars on-site. These rail lines allow us to sell our products to various regional and national markets. The rail providers for our ethanol plants can switch cars to most of the other major railroads, allowing the plants to easily ship ethanol and distillers grains throughout the United States.

Ethanol Blending and Distribution

We hold a majority interest in Blendstar, a biofuels terminal operator that owns and operates biofuel holding tanks and terminals, and provides terminaling, splash blending and logistics solutions to markets that currently do not have efficient access to renewable fuels. Blendstar operates blending and terminaling facilities at one owned and eight leased locations on approximately 19 acres in seven states with a combined total storage capacity of approximately 700,000 gallons and throughput capacity of approximately 495 mmgy. These facilities are summarized below:

Facility Location	Storage Capacity (gallons)	Throughput Capacity (mmgy)
Birmingham, Alabama	120,000	96
Little Rock, Arkansas	30,000	36
Louisville, Kentucky	60,000	30
Bossier City, Louisiana(1)		60
Collins, Mississippi	120,000	84
Oklahoma City, Oklahoma	150,000	84
Tulsa, Oklahoma		24
Knoxville, Tennessee	60,000	21
Nashville, Tennessee	160,000	60

(1) Five acre facility is owned by Blendstar.
Risk Management and Hedging Activities

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

The profitability of our operations and our industry are highly dependent on commodity prices, especially prices for corn, ethanol, distillers grains and natural gas. Because the market prices among these commodities are not always correlated at times ethanol production may be unprofitable. Recently, the industry experienced several well-publicized bankruptcies, including VeraSun Energy Corporation and Aventine Renewable Energy Inc. We believe that ineffective commodity price risk management was a primary reason for these bankruptcies as ethanol producers had entered into fixed-price corn contracts, or built large inventory positions, in order to ensure corn supply. When corn and ethanol prices declined, these producers were unable to profitably produce ethanol given their higher feedstock costs.

We enter into forward contracts to supply a portion of our respective ethanol and distillers grains production or to purchase a portion of our respective corn or natural gas requirements in an attempt to partially offset the effects of

S-29

Table of Contents

volatility of ethanol, distillers grains, corn and natural gas prices. To a much lesser extent, we also engage in other hedging transactions involving exchange-traded futures contracts for corn, natural gas and unleaded gasoline from time to time. The financial statement impact of these activities is dependent upon, among other things, the prices involved and our ability to physically receive or deliver the commodities involved. Hedging arrangements also expose us to the risk of financial loss in situations where the other party to the hedging contract defaults on its contract or, in the case of exchange-traded contracts, where there is a change in the expected differential between the price of the commodity underlying the hedging agreement and the actual prices paid or received by us for the physical commodity bought or sold. Hedging activities can themselves result in losses when a position is purchased in a declining market or a position is sold in a rising market. A hedge position is often settled in the same time frame as the physical commodity is either purchased (corn and natural gas) or sold (ethanol and distillers grains). Hedging losses may be offset by a decreased cash price for corn and natural gas and an increased cash price for ethanol and distillers grains. We also vary the amount of hedging or other risk mitigation strategies we undertake, and we may choose not to engage in hedging transactions at all. By using a variety of risk management tools and hedging strategies, including our internally-developed real-time operating margin management system, we believe our approach to risk management allows us to monitor real-time operating price risk exposure at each of our plants and to respond quickly to lock in acceptable margins. In addition, our multiple business lines and revenue streams help diversify our operations and profitability.

Merger and Acquisition Activity

In October 2008, we completed a merger with VBV, LLC that resulted in our ownership of the Bluffton and Obion plants. Simultaneously with the closing of the merger, NTR, a leading international developer and operator in renewable energy and sustainable waste management and the majority equity holder of VBV prior to the merger, through its wholly-owned subsidiaries, invested \$60 million in us by purchasing newly-issued shares of our common stock.

In January 2009, we acquired a majority interest in biofuel terminal operator Blendstar, LLC for \$8.9 million. The acquisition of Blendstar was a strategic investment within the ethanol value chain whose operations are included in our marketing and distribution segment.

In July 2009, we acquired the membership interests in two limited liability companies that owned ethanol plants in Central City and Ord, Nebraska for approximately \$121 million. These plants, which are a part of our ethanol production segment, were acquired to add to our overall ethanol and distillers grains production. The Central City and Ord plants added expected operating capacity totaling 150 mmgy.

Algae Joint Venture

In November 2008, we formed a joint venture to commercialize algae production as part of our commitment to next-generation biofuels. BioProcessAlgae LLC is a joint venture between us, Clarcor Inc., BioProcessH2O LLC and NTR. We own 25.5% of BioProcessAlgae. Using advanced photobioreactor technology developed from base technology licensed from BioProcessH2O, BioProcessAlgae currently is producing algae at a pilot plant located at our Shenandoah ethanol plant, sustained by the plant's recycled heat, water and carbon dioxide. We believe algae production fits well into our business model since we already engage in the business of marketing biofuel and feed products. The algae produced have the potential to be used for advanced bio-fuel production, high quality animal feed, or as biomass for energy production, but our current primary focus is on efficiently capturing carbon dioxide to grow and harvest algae.

Our Competition

Domestic Ethanol Competitors

We compete with numerous other ethanol producers located throughout the United States, several of which have much greater resources, in the sales of ethanol and distillers grains. In 2009, the three largest ethanol producers in North America were Archer-Daniels-Midland Company, POET, LLC and Valero Energy Corporation. We believe that our competitors' expected managed production capacity and gallons marketed ranges between approximately 200 mmgy and approximately 1,500 mmgy. Based on production capacity as reported by Ethanol Producer Magazine, we believe we are the fourth largest ethanol producer in North America. According to Ethanol Producer Magazine, as of December 31, 2009, there were 185 ethanol-producing plants within the United States, capable of producing 11.8 billion gallons of ethanol annually. As of that date, several new plants were under construction or expanding their capacity. We believe that by the end of 2010, annual U.S. ethanol production capacity could be as much as 13.0 billion gallons.

Table of Contents

Competition for corn supply from other ethanol plants and other corn consumers exists in all areas and regions in which our plants operate. According to Ethanol Producer Magazine, as of December 31, 2009, there were 38 operational ethanol plants in Iowa, one ethanol plant under construction, and three idle ethanol plants. The plants are concentrated, for the most part, in the northern and central regions of the state where a majority of the corn is produced. As of December 31, 2009, the state of Nebraska had 23 operating ethanol plants and three idle plants. The state of Indiana had ten operating ethanol plants, one under construction, and two idle ethanol plants. The state of Tennessee had only two operational ethanol production facilities.

Foreign Ethanol Competitors

We also face competition from foreign producers of ethanol and such competition may increase significantly in the future. Large international companies with much greater resources than ours have developed, or are developing, increased foreign ethanol production capacities. Brazil is the world's second largest ethanol producer. Brazil makes ethanol primarily from sugarcane, a process which has historically been lower cost than producing ethanol from corn. This is due primarily to the fact that sugarcane does not need to go through the extensive cooking process to convert the feedstock to sugar. Several large companies produce ethanol in Brazil. For example, Royal Dutch Shell recently announced that it intends to form a joint venture with Cosan, Brazil's largest ethanol producer, which when completed will be one of the world's largest ethanol producers.

The Caribbean region is also eligible for tariff reduction or elimination upon importation to the United States under a program known as the Caribbean Basin Initiative. Large multinational companies have expressed interest in building dehydration plants in participating Caribbean Basin countries, such as El Salvador, which would convert ethanol into fuel-grade ethanol for shipment to the United States. Ethanol imported from Caribbean Basin countries may be a less expensive alternative to domestically produced ethanol though transportation and infrastructure constraints may temper the market impact on the United States.

Other Competition

Alternative fuels, gasoline oxygenates and ethanol production methods are continually under development by ethanol and oil companies. Ethanol production technologies continue to evolve, and changes are expected to occur primarily in the area of ethanol made from cellulose obtained from other sources of biomass such as switchgrass or fast growing poplar trees. Because our plants are designed as single-feedstock facilities, we have limited ability to adapt the plants to a different feedstock or process system without additional capital investment and retooling.

Regulatory Matters

Government Ethanol Programs, Policies and Subsidies

In an effort to reduce this country's dependence on foreign oil, federal and state governments have enacted numerous policies, incentives and subsidies to encourage the usage of domestically produced alternative fuel solutions. The American ethanol industry has benefited significantly as a direct result of these policies. While historically, the ethanol industry has been dependent on economic incentives, the need for such incentives may diminish as the acceptance of ethanol as a primary fuel and as a fuel extender continues to increase.

Passed in 2007 as part of the Energy Independence and Security Act, a federal Renewable Fuels Standard, or RFS has been and will continue to be a driving factor in the growth of ethanol usage. As mandated by the RFS, 12.0 billion gallons of conventional biofuels, which corn-based ethanol falls under, must be blended into the U.S. fuel supply in 2010. This requirement progressively increases up to 15.0 billion gallons by 2015.

To further drive growth in the increased adoption of ethanol, Growth Energy, an ethanol industry trade association, and a number of ethanol producers have requested a waiver from the EPA to increase the amount of ethanol blended into gasoline from the current 10% level, or E10, to a 15% level, or E15. A final decision will not be publicly announced until June 2010 pending further tests of the higher blend mixture. However, preliminary assessments by the National Renewable Energy Laboratory and the EPA have suggested that newer vehicles that were manufactured after 2001 were able to use the higher blend product with no adverse effects. We believe this increased blend rate would have a significant positive impact on demand for ethanol.

Table of Contents

Another major benefit to the industry is the Volumetric Ethanol Excise Tax Credit, or VEETC (often commonly referred to as the blender's credit) created by the American Jobs Creation Act of 2004. This credit allows gasoline distributors who blend ethanol with gasoline to receive a federal excise tax credit of \$0.45 per gallon of pure ethanol used, or \$0.045 per gallon for E10 and \$0.3825 per gallon for E85. Currently, the blender's credit is set to expire in December 31, 2010. However, as has been done historically, we believe the credit will be extended prior to expiration. To ensure the blender's credit spurs growth in domestic production, federal policy has insulated the domestic ethanol industry from foreign competition by levying a \$0.54 per gallon tariff on all imported ethanol.

Changes in corporate average fuel economy, or CAFE, standards have also benefited the ethanol industry by encouraging use of E85 fuel products. CAFE provides an effective 54% efficiency bonus to flexible-fuel vehicles running on E85. Though E85 is not in widespread use today, auto manufacturers may find it attractive to build more flexible-fuel trucks and sport utility vehicles that are otherwise unlikely to meet CAFE standards.

In addition to these federal standards, many states have taken other steps in encouraging ethanol consumption. These governments use tax credits, mandated blend rates and subsidies as a method of preserving the environment, supporting this domestic industry, and improving the nation's security by reducing its dependence on foreign oil.

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. On February 3, 2010, the EPA released its final regulations on the Renewable Fuels Standard, or RFS 2. We believe these final regulations grandfather our plants at their current operating capacity, though expansion of our plants will need to meet a threshold of a 20% reduction in GHG emissions from a 2005 baseline measurement to produce ethanol eligible for the RFS 2 mandate. In order to expand capacity at our plants, we may be required to obtain additional permits, install advanced technology such as corn oil extraction, or reduce drying of certain amounts of distillers grains.

Separately, the California Air Resources Board has adopted a Low Carbon Fuel Standard requiring a 10% reduction in GHG emissions from transportation fuels by 2020. An Indirect Land Use Change component is included in this lifecycle GHG emissions calculation, though this standard is being challenged by numerous lawsuits.

Part of our business is 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 certain private sector associations. Production levels, markets and prices of the grains we merchandise are affected by federal government programs, which include acreage control and price support programs of the U.S. Department of Agriculture, or USDA. In addition, grain that we sell must conform to official grade standards imposed by the USDA. Other examples of government policies that can have an impact on our business include tariffs, duties, subsidies, import and export restrictions and outright embargos.

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

Corporate

We currently lease approximately 11,800 square feet of office space at 9420 Underwood Avenue, Suite 100 in Omaha, Nebraska for our corporate headquarters, which houses our corporate administrative functions and commodity trading operations. This lease expires in October 2011. We anticipate that we will be able to either renew this lease or find comparable office space.

Employees

As of December 31, 2009, we had 438 full-time, part-time and temporary or seasonal employees. At that date, we employed 58 people, which includes 27 employees of Green Plains Trade, at our corporate office in Omaha, 106 employees at Green Plains Grain, eight employees at

Blendstar and the remainder at our six ethanol plants.

S-32

Table of Contents

Material United States Federal Income Tax Considerations

General

The following is a general summary of the material U.S. federal income tax consequences to a non-U.S. holder (as defined below) of the acquisition, ownership and disposition of the common stock purchased by the investor pursuant to this offering. This discussion assumes that a non-U.S. holder will hold each share of our common stock issued and purchased pursuant to this offering as a capital asset within the meaning of Section 1221 of the Internal Revenue Code of 1986, as amended (the Code). This discussion does not address all aspects of U.S. federal income taxation that may be relevant to a non-U.S. holder in light of that investor's particular circumstances. In addition, this discussion does not address (a) U.S. federal non-income tax laws, such as estate or gift tax laws, (b) state, local or non-U.S. tax consequences, or (c) the special tax rules that may apply to certain investors, including, without limitation, banks, insurance companies, financial institutions, broker-dealers, taxpayers that have elected mark-to-market accounting, taxpayers subject to the alternative minimum tax provisions of the Code, persons that acquire the common stock pursuant to the exercise of employee stock options, in connection with employee stock incentive plans or otherwise as compensation, tax-exempt entities, governments or agencies or instrumentalities thereof, regulated investment companies, real estate investment trusts, persons whose functional currency is not the U.S. dollar, expatriates or former long-term residents of the United States, persons that own, or have owned, actually or constructively, more than 5% of our common stock, or investors that acquire, hold, or dispose of our common stock as part of a straddle, hedge, wash sale, constructive sale or conversion transaction or other integrated transaction. Additionally, this discussion does not consider the tax treatment of entities treated as partnerships or other pass-through entities for U.S. federal income tax purposes or of persons who hold our common stock through such entities. The tax treatment of a partnership and each partner thereof will generally depend upon the status and activities of the partnership and such partner. Thus, partnerships, other pass-through entities and persons holding our common stock through such entities should consult their own tax advisors. In addition, this discussion assumes that any distributions made (or deemed made) by us on our common stock and any consideration received by a non-U.S. holder in consideration for the sale or other disposition of our common stock will be in U.S. dollars.

This discussion is based on current provisions of the Code, its legislative history, U.S. Treasury regulations promulgated under the Code, judicial opinions, and published rulings and procedures of the U.S. Internal Revenue Service (IRS), all as in effect on the date of this prospectus supplement. These authorities are subject to differing interpretations or to change, possibly with retroactive effect. We have not sought, and will not seek, any ruling from the IRS or any opinion of counsel with respect to the tax consequences discussed below, and there can be no assurance that the IRS will not take a position contrary to the tax consequences discussed below or that any position taken by the IRS would not be sustained.

As used in this discussion, a non-U.S. holder is any beneficial owner of our common stock that is not a U.S. person for federal income tax purposes. A U.S. person means a person that is, for U.S. federal income tax purposes, (i) an individual citizen or resident of the United States, (ii) a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized (or treated as created or organized) in or under the laws of the United States or of any state thereof or the District of Columbia, (iii) an estate the income of which is subject to U.S. federal income taxation regardless of its source, or (iv) a trust if (A) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (B) it has in effect a valid election to be treated as a U.S. person under applicable U.S. Treasury regulations.

THIS DISCUSSION IS ONLY A SUMMARY OF CERTAIN MATERIAL U.S. FEDERAL INCOME TAX CONSEQUENCES OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK. IT IS NOT TAX ADVICE. EACH PROSPECTIVE INVESTOR IN OUR COMMON STOCK IS URGED TO CONSULT ITS OWN TAX ADVISOR WITH RESPECT TO THE PARTICULAR TAX CONSEQUENCES TO SUCH INVESTOR OF THE ACQUISITION, OWNERSHIP AND DISPOSITION OF OUR COMMON STOCK, INCLUDING THE APPLICABILITY AND EFFECT OF ANY STATE, LOCAL, AND NON-U.S. TAX LAWS, AS WELL AS U.S. FEDERAL TAX LAWS, AND ANY APPLICABLE TAX TREATIES.

Table of Contents

Taxation of Distributions

Any distribution we make to a non-U.S. holder of shares of our common stock, other than certain pro rata distributions of common stock, to the extent paid out of our current or accumulated earnings and profits (as determined under U.S. federal income tax principles), will constitute a dividend for U.S. federal income tax purposes. Generally, any dividend paid to a non-U.S. holder with respect to shares of our common stock that is not effectively connected with the non-U.S. holder's conduct of a trade or business within the United States, as described below, generally will be subject to U.S. federal withholding tax at a rate of 30 percent of the gross amount of the dividend, unless such non-U.S. holder is eligible for a reduced rate of withholding tax under an applicable income tax treaty and provides proper certification of its eligibility for such reduced rate (usually on an IRS Form W-8BEN). If U.S. federal income tax is withheld on the amount of a distribution in excess of the amount constituting a dividend, the non-U.S. holder may obtain a refund of all or a portion of the excess amount withheld by timely filing a claim for refund with the IRS. Any distribution not constituting a dividend will be treated for U.S. federal income tax purposes first as reducing the non-U.S. holder's adjusted tax basis in its shares of our common stock (but not below zero) and, to the extent such distribution exceeds the non-U.S. holder's adjusted tax basis, as gain from the sale or other disposition of the common stock, which will be treated as described under **Gain on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock for non-U.S. Holder** below.

Dividends we pay to a non-U.S. holder that are effectively connected with such non-U.S. holder's conduct of a trade or business within the United States (or, if certain income tax treaties apply, are attributable to a U.S. permanent establishment or fixed base maintained by the non-U.S. holder) generally will not be subject to U.S. withholding tax, provided such non-U.S. holder complies with certain certification and disclosure requirements (usually by providing an IRS Form W-8ECI). Instead, such dividends generally will be subject to U.S. federal income tax, net of certain deductions, at the same graduated individual or corporate tax rates applicable to U.S. persons. If the non-U.S. holder is a foreign corporation, dividends that are effectively connected income may also be subject to a branch profits tax at a rate of 30 percent (or such lower rate as may be specified by an applicable income tax treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Non-U.S. holders should consult any applicable income tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Sale, Taxable Exchange or Other Taxable Disposition of Common Stock for Non-U.S. Holder

A non-U.S. holder generally will not be subject to U.S. federal income tax in respect of gain recognized on a sale, exchange or other disposition of common stock, unless:

the gain is effectively connected with the conduct of a trade or business by the non-U.S. holder within the United States (or, under certain income tax treaties, is attributable to a U.S. permanent establishment or fixed base maintained by the non-U.S. holder);

the non-U.S. holder is an individual who is present in the United States for 183 days or more in the taxable year of disposition and certain other conditions are met; or

we are or have been a United States real property holding corporation (USRPHC) for U.S. federal income tax purposes at any time during the shorter of the five year period ending on the date of disposition or the non-U.S. holder's holding period for the common stock disposed of, and, generally, in the case where our common stock is regularly traded on an established securities market, the non-U.S. holder has owned, directly or indirectly, more than 5 percent of the common stock disposed of, at any time during the shorter of the five year period ending on the date of disposition or the non-U.S. holder's holding period for the common stock disposed of. There can be no assurance that our common stock will be treated as regularly traded on an established securities market for this purpose.

Unless an applicable tax treaty provides otherwise, gain described in the first and third bullet points above generally will be subject to U.S. federal income tax, net of certain deductions, at the same tax rates applicable to U.S. persons. Any gains described in the first bullet point above of a non-U.S. holder that is a foreign corporation may also be subject to an additional branch profits tax at a rate of 30 percent (or such lower rate as may be specified by an applicable income tax

Table of Contents

treaty) of its effectively connected earnings and profits for the taxable year, as adjusted for certain items. Any U.S. source capital gain of a non-U.S. holder described in the second bullet point above (which may be offset by U.S. source capital losses during the taxable year of the disposition) generally will be subject to a flat 30 percent U.S. federal income tax (or such lower rate as may be specified by an applicable income tax treaty).

In connection with the third bullet point above, we generally will be classified as a USRPHC if (looking through certain subsidiaries) the fair market value of our United States real property interests equals or exceeds 50 percent of the sum of the fair market value of our worldwide real property interests plus our other assets used or held for use in a trade or business, as determined for U.S. federal income tax purposes. We have not made a determination of whether we currently are, or expect to be for the foreseeable future, a USRPHC. Non-U.S. holders, particularly those non-U.S. holders that could be treated as actually or constructively holding more than 5 percent of our common stock, should consult their own tax advisors regarding the U.S. federal income tax consequences of owning and disposing of our common stock.

Information Reporting and Backup Withholding

We generally must report annually to the IRS and to each non-U.S. holder the amount of dividends and certain other distributions we pay to such holder on our common stock and the amount of tax, if any, withheld with respect to those distributions. Copies of the information returns reporting those distributions and withholding may also be made available to the tax authorities in the country in which the non-U.S. holder is a resident under the provisions of an applicable income tax treaty or agreement. Information reporting is also generally required with respect to proceeds from the sales and other dispositions of our common stock to or through the United States office (and in certain cases, the foreign office) of a broker.

In addition, backup withholding of U.S. federal income tax, currently at a rate of 28 percent, generally will apply to distributions made on our common stock to, and the proceeds from sales and other dispositions of our common stock by, a non-corporate U.S. holder who:

fails to provide an accurate taxpayer identification number;

is notified by the IRS that backup withholding is required; or

in certain circumstances, fails to comply with applicable certification requirements.

A non-U.S. holder generally may eliminate the requirement for information reporting (other than with respect to distributions, as described above) and backup withholding by providing certification of its foreign status, under penalties of perjury, on a duly executed applicable IRS Form W-8 or by otherwise establishing an exemption.

Backup withholding is not an additional tax. Rather, the amount of any backup withholding will be allowed as a credit against a U.S. holder's or a non-U.S. holder's U.S. federal income tax liability and may entitle such holder to a refund, provided that certain required information is timely furnished to the IRS. Holders are urged to consult their own tax advisors regarding the application of backup withholding and the availability of and procedure for obtaining an exemption from backup withholding in their particular circumstances.

Table of Contents**Underwriting**

Under the terms and subject to the conditions contained in an underwriting agreement dated March 4, 2010, we have agreed to sell to the underwriters named below, through their representatives Jefferies & Company, Inc. and Piper Jaffray & Co., the following respective numbers of shares of common stock:

Name	Number of Shares
Jefferies & Company, Inc.	2,062,500
Piper Jaffray & Co.	2,062,500
Imperial Capital LLC	825,000
Stephens Inc.	550,000
Total	5,500,000

The underwriters are offering the common stock subject to their acceptance of the shares from us and subject to prior sale. The underwriting agreement provides that the obligations of the underwriters to pay for and accept delivery of the common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriting agreement provides that the underwriters are obligated to take and pay for all of the common stock if any such shares are taken, other than those shares covered by the over-allotment option described below.

Option to Purchase Additional Shares

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to an aggregate 825,000 additional shares of common stock at the same price as they are paying for the shares shown in the table above. The underwriters may exercise this option at any time and from time to time, in whole or in part, within 30 days from the date of this prospectus supplement.

Commissions and Expenses

The underwriters have advised us that they propose to offer the common stock to the public at the public offering price set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$0.486 per share. After the offering, the public offering price and concession to dealers may be reduced by the representatives. No such reduction shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement. The shares are offered by the underwriters as stated herein, subject to receipt and acceptance by them and subject to their right to reject any order in whole or in part.

The following table shows the public offering price, the per share and total underwriting discounts and commissions payable to the underwriters by us and the proceeds, before expenses, to us from shares sold to the public and shares sold to our officers and directors.

	Per Share	Total
Public offering price	\$ 13.50	\$ 74,250,000
Underwriting discounts and commissions paid by us	\$ 0.81	\$ 4,455,000
Proceeds to us, before expenses	\$ 12.69	\$ 69,795,000

We estimate expenses payable by us in connection with the offering of common stock, other than underwriting discounts and commissions referred to above, will be approximately \$1,000,000.

Indemnification

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

Table of Contents

Lock-up Agreements

We, our officers and our directors, and certain shareholders holding 5% or more of our outstanding common stock have agreed subject to specified exceptions, not to directly or indirectly, sell, offer, contract or grant any option to sell (including without limitation any short sale), pledge, transfer, establish an open put equivalent position within the meaning of Rule 16a-1(h) under the Securities Exchange Act of 1934, as amended, or otherwise dispose of any shares of our common stock, options or warrants to acquire shares of our common stock, or securities exchangeable or exercisable for or convertible into shares of our common stock currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Securities Exchange Act of 1934, as amended) by such person (or such spouse or family member), or publicly announce an intention to do any of the foregoing.

This restriction terminates after the close of trading of the shares on and including the 90 days after the date of this prospectus supplement, except in limited circumstances described below. However, subject to certain exceptions, in the event that either (i) during the last 17 days of the 90-day restricted period, we issue an earnings release or material news or a material event relating to us or (ii) prior to the expiration of the 90-day restriction period, we announce that we will release earnings results during the 16-day period beginning on the last day of the 90-day restriction period, then in each case the 90-day restriction period will be extended until the expiration of the 18-day period beginning on the date of the issuance of the earnings release or the occurrence of the material news or material event.

The representatives may, in their sole discretion and at any time or from time to time before the termination of the 90-day period, without notice, release all or any portion of the securities subject to lock-up agreements. There are no existing agreements between the representatives and any of our shareholders who will execute a lock-up agreement providing consent to the sale of shares prior to the expiration of the lock-up period.

Listing

Our common stock is listed on The NASDAQ Global Market under the trading symbol GPRE.

Electronic Distribution

This prospectus supplement and the accompanying prospectus in electronic format may be made available on websites or through other online services maintained by the underwriters of the offering, or by their affiliates. Other than the prospectus in electronic format, the information on any underwriter's website and any information contained in any other website maintained by any underwriter are not part of the prospectus or the registration statement of which this prospectus supplement forms a part, has not been approved or endorsed by us or the underwriters in their capacity as underwriters and should not be relied upon by investors.

Price Stabilization, Short Positions and Penalty Bids

In connection with this offering, the underwriters may engage in transactions that stabilize, maintain or otherwise make short sales of our common stock and may purchase our common stock on the open market to cover positions created by short sales. Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in this offering. Covered short sales are sales made in an amount not greater than the underwriters' option to purchase additional shares in this offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the option to purchase additional shares. Naked short sales are sales in excess of the option to purchase additional shares. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in this offering. A stabilizing bid is a bid for or the purchase of common stock on behalf of the underwriters in the open market prior to the completion of this offering for the purpose of fixing or maintaining the price of the shares of common stock. A syndicate covering transaction is the bid for or purchase of common stock on behalf of the underwriters to reduce a short position incurred by the underwriters in connection with the offering.

Table of Contents

Similar to other purchase transactions, the underwriters' purchases to cover the syndicate short sales may have the effect of raising or maintaining the market price of our shares or preventing or retarding a decline in the market price of our shares. As a result, the price of our shares may be higher than the price that might otherwise exist in the open market.

In connection with this offering, the underwriters may also engage in passive market making transactions in our common stock on The NASDAQ Global Market in accordance with Rule 103 of Regulation M during a period before the commencement of offers or sales of shares of our common stock in this offering and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker's bid, that bid must then be lowered when specified purchase limits are exceeded.

Neither we, nor any of the underwriters make any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of our common stock. In addition, neither we nor the underwriters make any representation that the underwriters will engage in these transactions or that any transaction, if commenced, will not be discontinued without notice.

Affiliations

The underwriters and their affiliates have provided, or may in the future provide, various investment banking, financial advisory and other services to us and our affiliates for which services they have received, and may in the future receive, customary fees. In the course of their businesses, the underwriters and their affiliates may actively trade our securities or loans for their own account or for the accounts of customers, and, accordingly, the underwriters and their affiliates may at any time hold long or short positions in such securities or loans.

Table of Contents

Notice to Investors

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (as defined below) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, or the Relevant Implementation Date, an offer of our common stock to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to our common stock which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that an offer to the public in that Relevant Member State of any shares of our common stock may be made at any time under the following exemptions under the Prospectus Directive if they have been implemented in the Relevant Member State:

- (a) to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- (b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than 43,000,000 and (3) an annual net turnover of more than 50,000,000, as shown in its last annual or consolidated accounts;
- (c) to fewer than 100 natural or legal persons per Relevant Member State (other than qualified investors as defined in the Prospectus Directive); or
- (d) in any other circumstances falling within Article 3(2) of the Prospectus Directive,

provided that no such offer of our common stock shall result in a requirement for the publication by us or any underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of our common stock to the public in relation to any shares of our common stock in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and our common stock to be offered so as to enable an investor to decide to purchase or subscribe our common stock, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

United Kingdom

Shares of our common stock may not be offered or sold and will not be offered or sold to any persons in the United Kingdom other than to persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or as agent) for the purposes of their businesses or otherwise in circumstances which have not resulted or will not result in an offer to the public in the United Kingdom within the meaning of the Financial Services and Markets Act 2000, or the FSMA.

In addition, any invitation or inducement to engage in investment activity (within the meaning of section 21 of the FSMA) in connection with the issue or sale of shares of our common stock may only be communicated or caused to be communicated in circumstances in which Section 21(1) of the FSMA does not apply to us. Without limitation to the other restrictions referred to herein, this prospectus supplement is directed only at (1) persons outside the United Kingdom or (2) persons who:

- (a) are qualified investors as defined in section 86(7) of FSMA, being persons falling within the meaning of article 2.1(e)(i), (ii) or (iii) of the Prospectus Directive; and
- (b) are either persons who fall within article 19(1) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005, as amended, or Order, or are persons who fall within article 49(2)(a) to (d) (high net worth companies, unincorporated associations, etc.) of the Order; or
- (c) to whom it may otherwise lawfully be communicated in circumstances in which Section 21(1) of the FSMA does not apply.

Table of Contents

Without limitation to the other restrictions referred to herein, any investment or investment activity to which this offering circular relates is available only to, and will be engaged in only with, such persons, and persons within the United Kingdom who receive this communication (other than persons who fall within (2) above) should not rely or act upon this communication.

Germany

Any offer or solicitation of securities within Germany must be in full compliance with the German Securities Prospectus Act (Wertpapierprospektgesetz WpPG). The offer and solicitation of securities to the public in Germany requires the publication of a prospectus that has to be filed with and approved by the German Federal Financial Services Supervisory Authority (Bundesanstalt für Finanzdienstleistungsaufsicht BaFin). This prospectus supplement has not been and will not be submitted for filing and approval to the BaFin and, consequently, will not be published. Therefore, this prospectus supplement does not constitute a public offer under the German Securities Prospectus Act (Wertpapierprospektgesetz). This prospectus supplement and any other document relating to our common stock, as well as any information contained therein, must therefore not be supplied to the public in Germany or used in connection with any offer for subscription of our common stock to the public in Germany, any public marketing of our common stock or any public solicitation for offers to subscribe for or otherwise acquire our common stock. This prospectus supplement and other offering materials relating to the offer of our common stock are strictly confidential and may not be distributed to any person or entity other than the designated recipients hereof.

Sweden

This is not a prospectus under, and has not been prepared in accordance with the prospectus requirements provided for in, the Swedish Financial Instruments Trading Act [lagen (1991:980) om handel med finansiella instrument] nor any other Swedish enactment. Neither the Swedish Financial Supervisory Authority nor any other Swedish public body has examined, approved, or registered this document.

S-40

Table of Contents

Description of Common Stock

The following descriptions revise and replace the equivalent paragraphs on pages 7 and 8 of the accompanying prospectus.

Advance Notice Provisions for Stockholder Proposals and Stockholder Nominations of Directors. Our Amended and Restated Bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a stockholder before a meeting of stockholders, the stockholder must first have given timely notice of the proposal in writing to our Secretary. A stockholder's notice generally must be delivered not less than 50 days nor more than 75 days prior to the meeting; provided, however, that in the event less than 60 days notice or prior public disclosure of the date of the meeting is given, the notice must be received not later than the 10th day following notice of the meeting or such public disclosure. Detailed requirements as to the form of the notice and information required in the notice are specified in the Amended and Restated Bylaws. If it is determined that business was not properly brought before a meeting in accordance with our bylaw provisions, such business will not be conducted at the meeting.

No Stockholder Action by Written Consent. Our Amended and Restated Bylaws do not permit our stockholders to act by written consent, except where otherwise required by the Iowa Business Corporation Act. As a result, any action to be effected by our stockholders must be effected at a duly called annual or special meeting of the stockholders.

Super-Majority Stockholder Vote Required for Certain Actions. The Iowa Business Corporation Act provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's articles of incorporation or bylaws, unless the corporation's articles of incorporation or bylaws, as the case may be, requires a greater percentage. An affirmative 66 2/3% vote of our outstanding voting stock is required for any amendment to, or repeal of, our Amended and Restated Bylaws by the stockholders. Our Amended and Restated Bylaws may be amended or repealed by a simple majority vote of the Board of Directors. Notwithstanding the foregoing, no amendment shall be made to Section 3.01(f) (described below with respect to a Substantial Transaction) without the approval of at least two-thirds of the Directors then in office, or, in the absence of such approval, the affirmative vote of not less than 80% of our outstanding voting stock until we have issued additional shares, as described below, in which case a majority vote is needed).

Bylaws Provision Regarding Substantial Transaction. Our Amended and Restated Bylaws provide that a Substantial Transaction (as described below) must be approved by either (i) at least seven out of the ten members of our Board of Directors or (ii) if fewer than seven members of the Board of Directors approve such transaction, then at least eighty percent (80%) of the shares outstanding and entitled to vote thereon. A

Substantial Transaction means (i) any merger or consolidation of the Company or any significant subsidiary of the Company with or into any other entity (other than an entity that is wholly owned by the Company or a wholly owned subsidiary of the Company prior to such transaction), (ii) the sale or other disposition of all or substantially all of the assets of the Company, including assets held through a subsidiary, (iii) a change in the number of directors constituting the entire Board of Directors of the Company from ten; (iv) the issuance of any shares of a new class or new series of capital stock of the Company or the repurchase or other acquisition of outstanding shares of the capital stock of the Company; or (v) any action that would result in the circumvention of such provision. This provision only applies until, after the effective date of our Amended and Restated Bylaws (October 15, 2008), we have issued an aggregate of 6,000,000 shares of common stock (including shares issuable upon conversion of securities convertible or exercisable into, or exchangeable for, common stock, but excluding shares issued as a stock dividend or otherwise to effect a split of the common stock) to non-affiliates.

Table of Contents

Legal Matters

The validity of the issuance of the securities offered by this prospectus supplement and the accompanying prospectus will be passed upon for us by Husch Blackwell Sanders LLP, Kansas City, Missouri. Latham & Watkins LLP, Costa Mesa, California is acting as counsel for the underwriters in connection with the offering.

Experts

The consolidated financial statements of Green Plains Renewable Energy, Inc. and subsidiaries as of December 31, 2009 and for the year ended December 31, 2009, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2009 have been incorporated by reference herein and in the Registration Statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The report of KPMG LLP on the 2009 consolidated financial statements and financial statement schedule contain an explanatory paragraph that refers to the Company's adoption in 2009 of Financial Accounting Standards Board (FASB) Interpretation No. 141(R), *Business Combinations*, included in ASC Topic 805, *Business Combinations* and Statement of Financial Accounting Standards (SFAS) No. 160, *Noncontrolling Interest in Consolidated Financial Statements*, included in ASC Topic 810, *Consolidation*.

L.L. Bradford & Company, LLC, an independent registered public accounting firm, audited our consolidated financial statements as of December 31, 2008 and for the nine-month transition period ended December 31, 2008 included in our Annual Report on Form 10-K for the year ended December 31, 2009, as set forth in their report thereon dated March 26, 2009 included therein and incorporated herein by reference, and in reliance upon the authority of said firm as experts in accounting and auditing.

The consolidated statements of operations, shareholders' equity and comprehensive income, and cash flows of VBV, LLC and subsidiaries (predecessor of Green Plains Renewable Energy, Inc.) for the year ended March 31, 2008, have been incorporated by reference herein and in the Registration Statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The report of KPMG LLP on the March 31, 2008 consolidated financial statements of VBV, LLC and subsidiaries contains an explanatory paragraph that refers to the Company's adoption in 2009 of Financial Accounting Standards Board (FASB) Statement of Financial Accounting Standards (SFAS) No. 160, *Noncontrolling Interest in Consolidated Financial Statements*, included in ASC Topic 810, *Consolidation*.

Where You Can Find More Information

This prospectus supplement and accompanying prospectus constitute a part of a registration statement on Form S-3 that we filed on December 30, 2009 with the SEC under the Securities Act of 1933, as amended. We refer you to this registration statement for further information about us and the common stock offered hereby.

We are a public company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available to the public at the SEC's web site at www.sec.gov, and on our web site at www.gpreinc.com. The information contained on our web site is not included or incorporated by reference into this prospectus supplement or the accompanying prospectus.

Table of Contents

Incorporation of Certain Documents by Reference

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus supplement and the accompanying prospectus and information we file later with the SEC will automatically update and supersede this information as of the date of filing of such information. We incorporate by reference any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended. The following documents are also hereby incorporated by reference:

Our annual report on Form 10-K filed for the year ended December 31, 2009, as amended; and

The description of our common stock set forth in our registration statement on Form 8-A filed pursuant to Section 12 of the Securities Exchange Act of 1934, as amended, on December 16, 2005, including any amendment or report filed with the Securities and Exchange Commission for the purpose of updating this description.

This prospectus supplement may contain information that updates, modifies or is contrary to information in the document incorporated by reference in this prospectus supplement. To the extent that any statements contained in a document incorporated by reference are modified or superseded by any statements contained in this prospectus supplement, such statements shall not be deemed incorporated in this prospectus supplement except as so modified or superseded. Reports we file with the SEC after the date of this prospectus supplement may also contain information that updates, modifies or is contrary to information in this prospectus supplement or in a document incorporated by reference in this prospectus supplement. Investors should review these reports as they may disclose a change in our business, prospects, financial condition or other affairs after the date of this prospectus supplement.

You may request, orally or in writing, a copy of these filings, which will be provided to you at no cost, by contacting our executive offices at (402) 884-8700 or in writing to 9420 Underwood Ave., Suite 100, Omaha, Nebraska 68114, Attention: Investor Relations.

S-43

Table of Contents

PROSPECTUS

GREEN PLAINS RENEWABLE ENERGY, INC.

\$100,000,000

COMMON STOCK

WARRANTS

DEBT SECURITIES

We may, from time to time, issue up to a \$100,000,000 aggregate principal amount of common stock, warrants and/or debt securities. The securities may be offered separately or together, in separate classes or series, in amounts, at prices and on terms to be determined at the time of the offering. We will specify in an accompanying prospectus supplement the terms of the securities. We may sell these securities to or through underwriters and also to other purchasers or through agents. We will set forth the names of any underwriters or agents in the accompanying prospectus supplement. See Plan of Distribution.

Our common stock is quoted on The NASDAQ Global Market under the symbol GPRE.

Investing in our securities involves risks. See Risk Factors on page 5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

This prospectus may not be used to consummate sales of securities unless it is accompanied by a prospectus supplement.

THE DATE OF THIS PROSPECTUS IS JANUARY 14, 2010.

Table of Contents

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	1
<u>Special Note Regarding Forward-Looking Statements</u>	1
<u>Our Business</u>	2
<u>Risk Factors</u>	5
<u>Use Of Proceeds</u>	5
<u>The Securities We May Offer</u>	5
<u>Description Of Common Stock</u>	6
<u>Description Of Warrants</u>	10
<u>Description Of Debt Securities</u>	12
<u>Legal Ownership Of Securities</u>	18
<u>Plan Of Distribution</u>	21
<u>Legal Matters</u>	22
<u>Experts</u>	22
<u>Where You Can Find More Information</u>	22
<u>Incorporation Of Documents By Reference</u>	23

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC") utilizing a shelf registration process. Under this shelf registration process, we may offer shares of our common stock, as well as various series of debt securities and warrants, to purchase any of such securities, either individually or in units, in one or more offerings, up to a total dollar amount of \$100,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the terms of those securities. We may also add, update or change in the prospectus supplement any of the information contained in this prospectus or in the documents that we have incorporated by reference into this prospectus. We urge you to carefully read this prospectus and any applicable prospectus supplement, together with the information incorporated by reference herein as described under the headings "Where You Can Find More Information" and "Incorporation of Documents by Reference" before buying any of the securities being offered.

***THIS PROSPECTUS MAY NOT BE USED TO OFFER OR SELL SECURITIES UNLESS IT IS
ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.***

You should rely only on the information that we have provided or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free-writing prospectus that we may authorize to be provided to you. We have not authorized anyone to provide you with different information. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free-writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free-writing prospectus is accurate only as of the date on the front of the document and that any information we have incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free-writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find More Information."

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

The SEC encourages companies to disclose forward-looking information so that investors can better understand a company's future prospects and make informed investment decisions. This prospectus contains such forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These statements may be made directly in this prospectus, and they may also be made a part of this prospectus by reference to other documents filed with the SEC, which is known as incorporation by reference.

This prospectus contains forward-looking statements based on current expectations that involve a number of risks and uncertainties. Forward-looking statements generally do not relate strictly to historical or current facts, but rather to plans and objectives for future operations based upon management's reasonable estimates of future

Table of Contents

results or trends, and include statements preceded by, followed by, or that include words such as anticipates, believes, continue, estimates, expects, intends, outlook, plans, predicts, may, could, should, will, and words and phrases of similar impact, and include, but are not limited to, statements regarding future operating or financial performance, business strategy, business environment, key trends, and benefits of actual or planned acquisitions. In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances, including any underlying assumptions, are forward-looking statements. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Although we believe that our expectations regarding future events are based on reasonable assumptions, any or all forward-looking statements in this prospectus may turn out to be incorrect. They may be based on inaccurate assumptions or may not account for known or unknown risks and uncertainties. Consequently, no forward-looking statement is guaranteed, and actual future results may vary materially from the results expressed or implied in our forward-looking statements. The cautionary statements in this prospectus expressly qualify all of our forward-looking statements. In addition, the Company is not obligated, and does not intend, to update any of its forward-looking statements at any time unless an update is required by applicable securities laws. Factors that could cause actual results to differ from those expressed or implied in the forward-looking statements include, but are not limited to, those discussed in Risk Factors of this prospectus or in any document incorporated by reference. Specifically, we may experience significant fluctuations in future operating results due to a number of economic conditions, including, but not limited to, competition in the ethanol industry, commodity market risks, financial market risks, counter-party risks, risks associated with changes to federal policy and/or regulation and other risk factors detailed in our reports filed with the Securities and Exchange Commission. Actual results may differ from projected results due, but not limited, to unforeseen developments.

In light of these assumptions, risks and uncertainties, the results and events discussed in the forward-looking statements contained in this prospectus or in any document incorporated by reference might not occur. Investors are cautioned not to place undue reliance on the forward-looking statements, which speak only as of the date of this prospectus or the date of the document incorporated by reference in this prospectus. We are not under any obligation, and we expressly disclaim any obligation, to update or alter any forward-looking statements, whether as a result of new information, future events or otherwise.

OUR BUSINESS

References to we, us, our, Green Plains, or the Company in this prospectus refer to Green Plains Renewable Energy, Inc., an Iowa corporation and its subsidiaries.

Green Plains was formed in June 2004 to construct and operate dry mill, fuel-grade ethanol production facilities. To add shareholder value, we have expanded our business operations beyond ethanol production to integrate a full-service grain and agronomy business, ethanol marketing services, terminal and distribution assets, and next generation research and development in algae production.

Ethanol is a renewable, environmentally clean fuel source that is produced at numerous facilities in the United States, mostly in the Midwest. In the U.S., ethanol is produced primarily from corn and then blended with unleaded gasoline in varying percentages. The ethanol industry in the U.S. has grown significantly over the last few years as its use reduces harmful auto emissions, enhances octane ratings of the gasoline with which it is blended, offers consumers a cost-effective choice, and decreases the amount of crude oil the U.S. needs to import from foreign sources. Ethanol is most commonly sold as E10, the 10 percent blend of ethanol for use in all American automobiles. Increasingly, ethanol is also available as E85, a higher percentage ethanol blend for use in flexible fuel vehicles.

Table of Contents

Operations commenced at our ethanol plant in Shenandoah, IA in August 2007; at our ethanol plant in Superior, IA in July 2008; at our ethanol plant in Bluffton, IN in September 2008; at our ethanol plant in Obion, TN in November 2008; and at our ethanol plants in Ord, NE and Central City, NE in July 2009. The expected annual operating capacity of these six ethanol production facilities totals approximately 480 million gallons (mmgy) of fuel-grade ethanol.

Green Plains Trade Group LLC (Green Plains Trade), a wholly-owned subsidiary of the Company, is responsible for the sales, marketing and distribution of all ethanol produced at our production facilities. The majority of our ethanol is sold to regional and national markets. Our ethanol plants produce wet, modified wet and dried distillers grains, which is also marketed by Green Plains Trade. We also market and distribute ethanol for third-party ethanol producers with expected annual production totaling approximately 360 mmgy through Green Plains Trade. Combined with our own production, we market approximately 840 million gallons annually, which is approximately 8% of the U.S. supply of ethanol.

We acquired a full-service cooperative in April 2008, renamed as Green Plains Grain Company LLC, which specializes in grain, agronomy, feed and petroleum products with seven locations in northwestern Iowa. This business complements the ethanol plants in its grain handling and marketing, as well as grain procurement required in ethanol processing.

Our operations are highly dependent on commodity prices, especially prices for corn, ethanol, distillers grains and natural gas. As a result of price volatility for these commodities, our operating results may fluctuate substantially. The price and availability of corn are subject to significant fluctuations depending upon a number of factors that affect commodity prices in general, including crop conditions, weather, federal policy and foreign trade. Because the market price of ethanol is not always directly related to corn prices, at times ethanol prices may lag movements in corn prices and, in an environment of higher prices, compress the overall margin structure at the plants. As a result, at times, we may operate our plants at narrow, or possibly negative, operating margins.

We utilize a disciplined risk management program with a comprehensive policy to monitor and measure the risk of commodity price movements. There has been a great deal of volatility in the corn and ethanol markets. We believe that market volatility is attributable to a number of factors, including but not limited to grain export demand, market speculation, currency valuation, global economic conditions, ethanol demand and current production concerns. We attempt to hedge the majority of our positions by buying, selling and holding inventories of various commodities, some of which are readily traded on commodity futures exchanges. We focus on locking in margins based on an earnings before interest, taxes, depreciation and amortization (EBITDA) model that continually monitors market prices of corn, natural gas and other input costs against prices for ethanol and distillers grains at each of our production facilities. We create offsetting positions by using a combination of derivative instruments, fixed-price purchases and sales, or a combination of strategies in order to manage risk associated with commodity price fluctuations. Our primary focus is not to manage general price movements, for example minimize the cost of corn consumed, but rather to lock in favorable EBITDA margins whenever possible. We also employ a value-at-risk model with strict limits established by our Board of Directors to minimize commodity market exposures from open positions.

Federal policy has a significant impact on ethanol market demand. Ethanol blenders benefit from incentives that encourage usage and a tariff on imported ethanol supports the domestic industry. Additionally, the renewable fuels standard (RFS) mandates increased level of usage of both corn-based and cellulosic ethanol. We believe that any reversal in federal policy or the adoption of restrictive policies by states could have a profound impact on the ethanol industry.

Green Plains now has operations throughout the ethanol value chain, beginning upstream with our agronomy and grain handling operations, continuing through substantial ethanol production facilities and ending downstream with our ethanol marketing, distribution and blending facilities. We intend to continue to explore potential merger or acquisition opportunities, including those involving other ethanol producers and developers,

Table of Contents

other renewable fuels-related technologies, and grain and fuel logistics facilities. We believe that our vertical-integration model offers strategic advantages over participants operating in only one facet of the industry, such as ethanol production. By simultaneously engaging in multiple steps in the ethanol value chain, we believe we can increase efficiency, diversify cash flows and better manage commodity price and supply risks. We are seeking strategic opportunities to further consolidate and integrate firms involved in the ethanol value chain.

Our executive offices are located at 9420 Underwood Ave., Suite 100, Omaha, Nebraska 68114, and our telephone number is (402) 884-8700. Our website is www.gpreinc.com. Information contained on our website is not a part of this prospectus.

Table of Contents

RISK FACTORS

Investing in our securities involves a high degree of risk. Before purchasing our securities, you should carefully consider the risks, uncertainties and forward-looking statements described under Risk Factors in Item 1A of our most recent Transition Report on Form 10-KT and any amendments thereto for the nine-month transition period ended December 31, 2008 and in Item 1A of our Quarter Reports on Form 10-Q for the quarterly periods ended March 31, 2009, June 30, 2009 and September 30, 2009, as well as information incorporated by reference into this prospectus, any applicable prospectus supplement or any free-writing prospectus. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our securities could decline, and you could lose part or all of your investment. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations.

USE OF PROCEEDS

Unless we indicate otherwise in the applicable prospectus supplement, we currently intend to use the net proceeds from this offering for general corporate purposes.

We have not determined the amounts we plan to spend or the timing of these expenditures. As a result, our management will have broad discretion to allocate the net proceeds from this offering. Pending application of the net proceeds as described above, we intend to invest the net proceeds of the offering in short-term, investment-grade, interest-bearing securities.

We may set forth additional information on the use of net proceeds from the sale of securities we offer under this prospectus in a prospectus supplement relating to the specific offering.

THE SECURITIES WE MAY OFFER

The descriptions of the securities contained in this prospectus, together with the applicable prospectus supplements, summarize the material terms and provisions of the various types of securities that we may offer. We will describe in the applicable prospectus supplement relating to any securities the particular terms of the securities offered by that prospectus supplement. If we indicate in the applicable prospectus supplement, the terms of the securities may differ from the terms we have summarized below. We will also include information in the prospectus supplement, where applicable, about material United States federal income tax considerations relating to the securities, and the securities exchange, if any, on which the securities will be listed.

We may sell from time to time, in one or more offerings:

common stock;

warrants to purchase common stock or debt securities of one or more series; and/or

debt securities.

This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, including, to the extent applicable:

designation or classification;

aggregate offering price;

rates and times of payment of dividends, if any;

Table of Contents

redemption, conversion, exercise, exchange or sinking fund terms, if any;

ranking;

liquidation rights;

restrictive covenants, if any;

voting or other rights, if any;

conversion prices, if any; and

important United States federal income tax considerations.

The prospectus supplement may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus forms a part.

This prospectus may not be used to consummate a sale of securities unless it is accompanied by a prospectus supplement.

DESCRIPTION OF COMMON STOCK

We are authorized to issue 50,000,000 shares of common stock, \$0.001 par value per share. As of November 2, 2009, approximately 24,964,389 shares of common stock were issued and outstanding.

The following descriptions of our common stock and provisions of our Second Amended and Restated Articles of Incorporation and our Amended and Restated Bylaws, as amended, are only summaries, and we encourage you to review complete copies of these documents, which have been filed as exhibits to our periodic reports with the SEC.

Dividends, Voting Rights and Liquidation

Holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of the stockholders, and do not have cumulative voting rights. Holders of common stock are entitled to receive ratably such dividends, if any, as may be declared from time to time by our board of directors out of funds legally available for dividend payments. All outstanding shares of common stock are fully paid and non-assessable, and the shares of common stock to be issued upon completion of this offering will be fully paid and non-assessable. The holders of common stock have no preferences or rights of conversion, exchange, pre-emption or other subscription rights. There are no redemption or sinking fund provisions applicable to the common stock. In the event of any liquidation, dissolution or winding-up of our affairs, holders of common stock will be entitled to share ratably in our assets that are remaining after payment or provision for payment of all of our debts and obligations.

Listing

Our common stock is listed on The NASDAQ Global Market under the symbol GPRE.

Transfer Agent and Registrar

Computershare Trust Company, N.A., is the transfer agent and registrar for our common stock. Their address is 250 Royall Street, Canton, Massachusetts 02021, and their telephone number is 1(800) 962-4284.

Table of Contents

Iowa Law and Certain Charter and Bylaw Provisions

The provisions of (1) Iowa law, (2) our Second Amended and Restated Articles of Incorporation, and (3) our Amended and Restated Bylaws, as amended, discussed below could discourage or make it more difficult to accomplish a proxy contest or other change in our management or the acquisition of control by a holder of a substantial amount of our voting stock. It is possible that these provisions could make it more difficult to accomplish, or could deter, transactions that stockholders may otherwise consider to be in their best interests or in our best interests. These provisions are intended to enhance the likelihood of continuity and stability in the composition of our board of directors and in the policies formulated by the board of directors and to discourage certain types of transactions that may involve an actual or threatened change of control of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. Such provisions also may have the effect of preventing changes in our management.

Iowa Statutory Business Combinations Provision. We are subject to the anti-takeover provisions of Section 490.1110 of the Iowa Business Corporation Act. In general, Section 490.1110 prohibits a publicly-held Iowa corporation from engaging in a business combination with an interested stockholder for a period of three years after the date of the transaction in which the person became an interested stockholder, unless the business combination is, or the transaction in which the person became an interested stockholder was, approved in a prescribed manner or another prescribed exception applies. For purposes of Section 490.1110, a business combination is defined broadly to include a merger, asset sale or other transaction resulting in a financial benefit to the interested stockholder, and, subject to certain exceptions, an interested stockholder is a person who, together with his or her affiliates and associates, owns (or within three years prior, did own) 10% or more of the corporation's voting stock.

Classified Board of Directors; Removal of Directors for Cause. Our Second Amended and Restated Articles of Incorporation and Amended and Restated Bylaws provide that our board of directors is divided into three classes, each serving staggered three-year terms ending at the annual meeting of our stockholders. All directors elected to our classified board of directors will serve until the election and qualification of their respective successors or their earlier resignation or removal. The board of directors is authorized to create new directorships and to fill such positions so created and is permitted to specify the class to which any such new position is assigned. The person filling such position would serve for the term applicable to that class. The board of directors (or its remaining members, even if less than a quorum) is also empowered to fill vacancies on the board of directors occurring for any reason for the remainder of the term of the class of directors in which the vacancy occurred. Members of the board of directors may only be removed for cause and only by the affirmative vote of 66²/₃% of our outstanding voting stock. These provisions are likely to increase the time required for stockholders to change the composition of the board of directors. For example, in general, at least two annual meetings will be necessary for stockholders to effect a change in a majority of the members of the board of directors.

Advance Notice Provisions for Stockholder Proposals and Stockholder Nominations of Directors. Our restated bylaws provide that, for nominations to the board of directors or for other business to be properly brought by a stockholder before a meeting of stockholders, the stockholder must first have given timely notice of the proposal in writing to our Secretary. For an annual meeting, a stockholder's notice generally must be delivered not less than 45 days nor more than 75 days prior to the anniversary of the mailing date of the proxy statement for the previous year's annual meeting. For a special meeting, the notice must generally be delivered by the later of 90 days prior to the special meeting or ten days following the day on which public announcement of the meeting is first made. Detailed requirements as to the form of the notice and information required in the notice are specified in the Amended and Restated Bylaws. If it is determined that business was not properly brought before a meeting in accordance with our bylaw provisions, such business will not be conducted at the meeting.

Table of Contents

Special Meetings of Stockholders. Special meetings of the stockholders may be called only by our Chairman of the Board, Chief Executive Officer, President, the Board of Directors, or as otherwise allowed under the Iowa Business Corporation Act,

No Stockholder Action by Written Consent. Our restated certificate of incorporation and restated bylaws do not permit our stockholders to act by written consent. As a result, any action to be effected by our stockholders must be effected at a duly called annual or special meeting of the stockholders.

Super-Majority Stockholder Vote Required for Certain Actions. The Iowa Business Corporation Act provides generally that the affirmative vote of a majority of the shares entitled to vote on any matter is required to amend a corporation's certificate of incorporation or bylaws, unless the corporation's certificate of incorporation or bylaws, as the case may be, requires a greater percentage. Our restated certificate of incorporation requires the affirmative vote of the holders of at least 66²/₃% of our outstanding voting stock to amend or repeal any of the provisions discussed in this section of this prospectus. This 66²/₃% stockholder vote would be in addition to any separate class vote that might in the future be required pursuant to the terms of any preferred stock that might then be outstanding. In addition, a 66²/₃% vote is also required for any amendment to, or repeal of, our Amended and Restated Bylaws by the stockholders. Our Amended and Restated Bylaws may be amended or repealed by a simple majority vote of the board of directors.

Bylaws Provision Regarding Substantial Transaction. Our Amended and Restated Bylaws provide that a Substantial Transaction (as defined in our Amended and Restated Bylaws) must be approved by either (i) at least seven out of the ten members of our Board of Directors or (ii) if fewer than seven members of the Board of Directors approve such transaction, then at least eighty percent (80%) of the shares outstanding and entitled to vote thereon. A Substantial Transaction means (i) any merger or consolidation of the Company or any significant subsidiary of the Company with or into any other entity (other than an entity that is wholly owned by the Company or a wholly owned subsidiary of the Company prior to such transaction), (ii) the sale or other disposition of all or substantially all of the assets of the Company, including assets held through a subsidiary, (iii) a change in the number of directors constituting the entire Board of Directors of the Company from ten; (iv) the issuance of any shares of a new class or new series of capital stock of the Company or the repurchase or other acquisition of outstanding shares of the capital stock of the Company; or (v) any action that would result in the circumvention of such provision. This provision of our Amended and Restated Bylaws only applies until we have issued an aggregate of 6,000,000 shares of common stock (including shares issuable upon conversion of securities convertible or exercisable into, or exchangeable for, common stock, but excluding shares issued as a stock dividend or otherwise to effect a split of the common stock) to non-affiliates.

Shareholders Agreement

Under a Shareholders Agreement between the Company and certain shareholders, at any time until April 16, 2010:

The holders of at least 30% of the registrable securities subject to the agreement may request that the Company file a Form S-1 registration statement with respect to at least 20% of their registrable securities.

The holders of at least 20% of the registrable securities subject to the agreement may request that the Company file a Form S-3 registration statement with respect to registrable securities having an anticipated aggregate offering price of at least \$5 million dollars.

In both cases, if the Company believes in its good faith judgment that such registration statement would be materially detrimental to the Company and its shareholders, the Company shall have the right to defer taking action with respect to the filing such registration statement for a period of not more than 75 days after such request. The Company may invoke this right two times in any 12-month period.

Table of Contents

The Company shall not be obligated to file a Form S-1 registration statement (i) during a period that is 30 days before and 90 days after the effective date of a Company-filed registration statement; (ii) after the Company has effected two registration statement under the Shareholders Agreement; or (iii) if the request for registration can be effected on a Form S-3 registration. Additionally, the Company shall not be obligated to file a Form S-3 registration statement (i) during a period that is 30 days before and 90 days after the effective date of a Company filed registration statement; or (ii) if the Company has effected two Form S-3 registrations within the 12 months preceding such request. In no event shall the Company be obligated to effect more than four registrations under the Shareholders Agreement.

In the event the Company proposes to register any of its common stock, it shall be obligated to give notice to the holders of registrable securities under the Shareholders Agreement to allow them to piggyback onto such registration, and include such holders registrable securities in such registration. The Company has provided such notice to the holders on November 4, 2009 and the holders have waived their right to piggyback onto such registration. In any offering by the Company involving an underwriting of Company shares, the Company shall not be required to include any holders registrable securities unless the holders agree to the terms agreed to by the Company and then only in such amounts as the underwriters determine will not jeopardize the success of the offering by the Company.

If the registration request by holders includes a request to distribute registrable securities by means of an underwriting, the holders must make such a request of the Company. All holders proposing to distribute their securities through such underwriting shall be party to an underwriting agreement and if a limit is imposed on the number of shares to be underwritten, then all holders shall be allocated their proportionate share of such underwriting. If, as a result of an underwriter cutback, fewer than 50% of the registrable securities requested to be registered by the holders are included in such registration, then that registration shall not be counted toward the maximum number of registrations permitted under the Shareholders Agreement.

When required to effect a registration, the Company is obligated to, among other things, (i) prepare and file with the SEC the applicable registration statement, amendments and supplements as necessary; (ii) take other usual and customary actions to provide information to the holders, and effect such registration; (iii) use its commercially reasonable efforts to cause the registrable securities to be listed on a national securities exchange or trading system; and (iv) pay all such expenses of such registration other than (a) selling expenses, underwriting discounts, selling commissions, and stock transfer taxes related to the selling holders shares, and (b) fees of selling holders legal counsel.

The Company and the selling holders agree to indemnify the other, under certain circumstances, from any loss, damage or liability to which a party may become subject under federal and state securities laws in connection with their respective obligations under the Shareholders Agreement. The Company further agrees (i) to make and keep available adequate current public information, and (ii) that it shall not, for a period two years after the date of the Shareholders Agreement, without the consent of the holders of the majority of registrable securities covered by the agreement, allow any holder or prospective holder to include such securities in any registration or allow any holder or prospective holder to initiate a demand for registration. The registration rights granted under the Shareholders Agreement shall terminate upon the fifth anniversary of the date of the agreement.

Table of Contents

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. If we so indicate in the prospectus supplement, the terms of any warrants offered under that prospectus supplement may differ from the terms described below.

General

We may issue warrants for the purchase of common stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock and/or debt securities, and the warrants may be attached to or separate from these securities.

We will evidence each series of warrants by warrant certificates that we will issue under a separate agreement. We may enter into the warrant agreement with a warrant agent. Each warrant agent will be a bank that we select that has its principal office in the United States and a combined capital and surplus in an amount as required by applicable law. We will indicate the name and address of the warrant agent in the applicable prospectus supplement relating to a particular series of warrants.

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

the offering price and aggregate number of warrants offered;

the currency for which the warrants may be purchased;

if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;

if applicable, the date on and after which the warrants and the related securities will be separately transferable;

in the case of warrants to purchase common stock, the number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;

in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;

the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreement and the warrants;

the terms of any rights to redeem or call the warrants;

any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;

the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreement and warrants may be modified;

federal income tax consequences of holding or exercising the warrants;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Table of Contents

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or

in the case of warrants to purchase common stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 p.m. EST on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent upon exercise of the warrants.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

Table of Contents

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplement, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any debt securities we offer under that prospectus supplement may differ from the terms we describe below.

We will issue the senior debt securities under a senior indenture, which we will enter into with a trustee to be named in the senior indenture. We will issue the subordinated debt securities under a subordinated indenture, which we will enter into with a trustee to be named in the subordinated indenture. We use the term "indentures" to refer to both senior indentures and the subordinated indentures. The indentures will be qualified under the Trust Indenture Act. We use the term "debenture trustee" to refer to either a senior trustee or a subordinated trustee, as applicable.

The following summaries of material provisions of senior debt securities, subordinated debt securities and indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities. Except as we may otherwise indicate, the terms of senior indentures and subordinated indentures are identical.

General

We will describe in each prospectus supplement the following terms relating to a series of debt securities:

the title;

the principal amount being offered, and, if a series, the total amount authorized and the total amount outstanding;

any limit on the amount that may be issued;

whether or not we will issue the series of debt securities in global form, the terms and who the depository will be;

the maturity date;

the principal amount due at maturity, and whether the debt securities will be issued with any original issue discount;

whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;

the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

the terms of the subordination of any series of subordinated debt;

the aggregate amount of indebtedness that would be senior to the subordinated debt and a description of any limitation on the issuance of such additional senior indebtedness (or a statement that there is no such limitation);

the place where payments will be made;

Table of Contents

restrictions on transfer, sale or other assignment, if any;

our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional redemption provisions;

provisions for a sinking fund, purchase or other analogous fund, if any;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities;

whether the indenture will restrict our ability to: incur additional indebtedness, issue additional securities, create liens, pay dividends and make distributions in respect of our capital stock, redeem capital stock, make investments or other restricted payments, sell or otherwise dispose of assets, engage in transactions with stockholders and affiliates, or effect a consolidation or merger;

whether the indenture will require us to maintain any asset ratios or reserves;

a discussion of any material or special United States federal income tax considerations applicable to the debt securities;

the procedures for any auction and remarketing, if any;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

if other than dollars, the currency in which the series of debt securities will be denominated;

any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities; and

the name of any trustee(s) and the nature of any material relationships with the trustee, the percentage of securities of the class necessary to require the trustee to take action and what indemnification the trustee may require before proceeding to enforce any liens.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for common stock or other securities of ours. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of common stock or other securities of ours that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Unless an accompanying prospectus supplement states otherwise, the indentures will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the indentures or the debt securities, as appropriate.

Events of Default Under an Indenture

The following will be events of default under the indentures with respect to any series of debt securities that we may issue:

if we fail to pay interest when due and our failure continues for 90 days and the time for payment has not been extended or deferred;

Table of Contents

if we fail to pay the principal, or premium, if any, when due and the time for payment has not been extended or delayed;

if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 90 days after we receive notice from the debenture trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur as to us.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the debenture trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the debenture trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the debenture trustee or any holder.

The holders of a majority-in-principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any such waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the debenture trustee reasonable indemnity. The holders of a majority-in-principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debenture trustee, or exercising any trust or power conferred on the debenture trustee, with respect to the debt securities of that series, provided that:

the direction so given by the holder is not in conflict with any law or the applicable indenture; and

subject to its duties under the Trust Indenture Act, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies only if:

the holder has given written notice to the debenture trustee of a continuing event of default with respect to that series;

the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity, to the debenture trustee to institute the proceeding as trustee; and

the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority-in-aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 60 days after the notice, request and offer. These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the debenture trustee regarding our compliance with specified covenants in the indentures.

Table of Contents

Modification of Indenture; Waiver

We and the debenture trustee may change an indenture without the consent of any holders with respect to specific matters, including:

to fix any ambiguity, defect or inconsistency in the indenture;

to comply with the provisions described above under Consolidation, Merger or Sale ;

to comply with any requirements of the SEC in connection with the qualification of any indenture under the Trust Indenture Act;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee;

to provide for uncertificated debt securities and to make all appropriate changes for such purpose;

to add to, delete from, or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issuance, authorization and delivery of debt securities of any series;

to add to our covenants such new covenants, restrictions, conditions or provisions for the protection of the security holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default, or to surrender any of our rights or powers under the indenture; or

to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debenture trustee with the written consent of the holders of at least a majority-in-aggregate principal amount of the outstanding debt securities of each series that is affected. However, we and the debenture trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

extending the fixed maturity of the series of debt securities;

reducing the principal amount, reducing the rate of or extending the time of payment of interest, or any premium payable upon the redemption of any debt securities; or

reducing the percentage of debt securities, the holders of which are required to consent to any amendment.

Discharge

Each indenture will provide that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

compensate and indemnify the trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Table of Contents

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures will provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in a prospectus supplement with respect to that series. See **Legal Ownership of Securities** for a further description of the terms relating to any book-entry securities.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or

register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Information Concerning the Debenture Trustee

The debenture trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the debenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debenture trustee is under no obligation to exercise any of the powers given it by the indentures at the request of any holder of debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

Table of Contents

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check, which we will mail to the holder. Unless we otherwise indicate in a prospectus supplement, we will designate the corporate trust office of the debenture trustee in the State of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the debenture trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act is applicable.

Subordination of Subordinated Debt Securities

The subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indentures will not limit the amount of subordinated debt securities that we may issue. It also will not limit us from issuing any other secured or unsecured debt.

Table of Contents

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee maintain for this purpose as the **holders** of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as **indirect holders** of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in **street name**. Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

Table of Contents

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass the payment or notice along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is the responsibility of the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

how it would handle a request for the holders' consent, if ever required;

whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;

how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and

if the securities are in book-entry form, how the depository's rules and procedures will affect these matters.

Global Securities

A global security is a security held by a depository which represents one or any other number of individual securities. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depository. Unless we specify otherwise in the applicable prospectus supplement, DTC will be the depository for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depository, its nominee or a successor depository, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depository, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depository or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Table of Contents

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depository, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depository that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

An investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;

An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe under "Legal Ownership of Securities" above;

An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;

An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;

The depository's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security. We and any applicable trustee have no responsibility for any aspect of the depository's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depository in any way;

The depository may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and

Financial institutions that participate in the depository's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

The global security will terminate when the following special situations occur:

if the depository notifies us that it is unwilling, unable or no longer qualified to continue as depository for that global security and we do not appoint another institution to act as depository within 90 days;

if we notify any applicable trustee that we wish to terminate that global security; or

if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

Table of Contents

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities being offered hereby in one or more of the following ways from time to time:

through dealers or agents to the public or to investors;

to underwriters for resale to the public or to investors;

directly to investors; or

through a combination of such methods.

We will set forth in a prospectus supplement the terms of the offering of securities, including:

the name or names of any agents, dealers or underwriters;

the purchase price of the securities being offered and the proceeds we will receive from the sale;

any over-allotment options under which underwriters may purchase additional securities from us;

any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;

any initial public offering price;

any discounts or concessions allowed or reallocated or paid to dealers; and

any securities exchanges on which the securities may be listed.

We may distribute the securities from time to time in one or more transactions at a fixed price which may be changed, market prices prevailing at the time of the sale, prices related to such prevailing market prices or negotiated prices.

Underwriters, dealers and agents that participate in the distribution of the securities may be deemed to be underwriters as defined in the Securities Act and any discounts or commissions they receive from us and any profit on their resale of the securities may be treated as underwriting discounts and commissions under the Securities Act.

We will identify in the applicable prospectus supplement any underwriters, dealers or agents and will describe their compensation. We may have agreements with the underwriters, dealers and agents to indemnify them against specified civil liabilities, including liabilities under the

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Securities Act. Underwriters, dealers and agents may engage in transactions with or perform services for us or our subsidiaries in the ordinary course of their businesses.

Certain persons that participate in the distribution of the securities may engage in transactions that stabilize, maintain or otherwise affect the price of the securities, including over-allotment, stabilizing and short-covering transactions in such securities, and the imposition of penalty bids, in connection with an offering. Certain persons may also engage in passive market making transactions as permitted by Rule 103 of Regulation M. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded.

Table of Contents

LEGAL MATTERS

Husch Blackwell Sanders LLP, Kansas City, Missouri, will provide us with an opinion as to the legal matters in connection with the securities we are offering.

EXPERTS

L.L. Bradford & Company, LLC, an independent registered public accounting firm, audited our consolidated financial statements as of December 31, 2008 and for the nine-month transition period ended December 31, 2008 included in our Transition Report on Form 10-KT and Amendment No. 2 on Form 10-KT/A for the transition period from April 1, 2008 to December 31, 2008, which was filed with the SEC on March 31, 2009, as set forth in their report thereon dated March 26, 2009 included therein and incorporated herein by reference, and in reliance upon the authority of said firm as experts in accounting and auditing.

The consolidated balance sheet of VBV LLC and subsidiaries (a development stage company) (predecessor of Green Plains Renewable Energy, Inc.) as of March 31, 2008, and the related consolidated statements of operations, stockholders' equity and comprehensive income, and cash flows for the year ended March 31, 2008, and for the period from September 28, 2006 (date of inception) to March 31, 2007, have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and in reliance upon the authority of said firm as experts in accounting and auditing.

On June 2, 2009, the Company's Audit Committee selected KPMG LLP as the Company's independent registered public accounting firm for the fiscal year ending December 31, 2009, and dismissed L.L. Bradford from that role effective upon Green Plains' filing of its Form 10-Q for the second quarter ending June 30, 2009. This Form 10-Q was filed with the SEC on August 10, 2009.

WHERE YOU CAN FIND MORE INFORMATION

We are a public company and file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's Public Reference Room at Station Place, 100 F Street, N.E., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available to the public at the SEC's website at www.sec.gov, and on our website at www.gpreinc.com. The information contained on our website is not included or incorporated by reference into this prospectus. In addition, our common stock is listed for trading on The NASDAQ Global Market under the symbol GPRE.

This prospectus is only part of a Registration Statement on Form S-3 that we have filed with the SEC under the Securities Act of 1933, as amended, and therefore omits certain information contained in the Registration Statement. We have also filed exhibits and schedules with the Registration Statement that are excluded from this prospectus, and you should refer to the applicable exhibit or schedule for a complete description of any statement referring to any contract or other document. You may:

inspect a copy of the Registration Statement, including the exhibits and schedules, without charge at the public reference room;

obtain a copy from the SEC upon payment of the fees prescribed by the SEC; or

obtain a copy from the SEC's website or our website.

Table of Contents

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus and information we file later with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act). The documents we are incorporating by reference as of their respective dates of filing are:

Our Annual Report on Form 10-KT, filed on March 31, 2009, and any amendments thereto for the nine-month transition period ended December 31, 2008.

Our Quarterly Report on Form 10-Q, filed on May 15, 2009, for the quarter ended March 31, 2009.

Our Quarterly Report on Form 10-Q, filed on August 10, 2009, for the quarter ended June 30, 2009.

Our Quarterly Report on Form 10-Q, filed on November 10, 2009, for the quarter ended September 30, 2009.

Our Current Report on Form 8-K, filed on January 21, 2009.

Our Current Report on Form 8-K/A, filed on January 21, 2009.

Our Current Report on Form 8-K, filed on February 18, 2009.

Our Current Report on Form 8-K, filed on March 13, 2009.

Our Current Report on Form 8-K, filed on March 17, 2009.

Our Current Report on Form 8-K, filed on March 20, 2009.

Our Current Report on Form 8-K, filed on March 25, 2009.

Our Current Report on Form 8-K, filed on May 11, 2009.

Our Current Report on Form 8-K, filed on May 14, 2009.

Our Current Report on Form 8-K, filed on May 21, 2009.

Edgar Filing: Green Plains Renewable Energy, Inc. - Form 424B5

Our Current Report on Form 8-K, filed on June 5, 2009.

Our Current Report on Form 8-K, filed on July 6, 2009.

Our Current Report on Form 8-K, filed on August 4, 2009.

Our Current Report on Form 8-K, filed on August 10, 2009.

Our Current Report on Form 8-K, filed on November 6, 2009.

Our Current Report on Form 8-K, filed on November 10, 2009.

Our Current Report on Form 8-K, filed on November 30, 2009.

Our Current Report on Form 8-K, filed on December 21, 2009.

The description of the registrant's common stock set forth in the registrant's registration statement on Form 8-A filed pursuant to Section 12 of the Exchange Act on December 16, 2005, including any amendment or report filed with the Commission for the purpose of updating this description.

You may request, orally or in writing, a copy of these filings, which will be provided to you at no cost, by contacting our investor relations department at our principal executive offices, which are located at 9420 Underwood Ave., Suite 100, Omaha, Nebraska 68114, Attention: Investor Relations, Telephone: (402) 884-8700.

Table of Contents

To the extent that any statements contained in a document incorporated by reference are modified or superseded by any statements contained in this prospectus, such statements shall not be deemed incorporated in this prospectus except as so modified or superseded.

All documents subsequently filed by us pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act and prior to the termination of this offering are incorporated by reference and become a part of this prospectus from the date such documents are filed. Any statement contained in this prospectus or in a document incorporated by reference is modified or superseded for purposes of this prospectus to the extent that a statement contained in any subsequent filed document modifies or supersedes such statement.

Table of Contents

This prospectus is part of a registration statement we filed with the Securities and Exchange Commission. You should only rely on the information or representations contained in this prospectus and any accompanying prospectus supplement. We have not authorized anyone to provide information other than that provided in this prospectus and any accompanying prospectus supplement. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information in this prospectus or any accompanying prospectus supplement is accurate as of any date other than the date on the front of the document.

\$100,000,000

Common Stock

Warrants

Debt Securities

Green Plains Renewable Energy, Inc.

The date of this prospectus is January 14, 2010.

PROSPECTUS

Table of Contents

5,500,000 Shares of Common Stock

GREEN PLAINS RENEWABLE ENERGY, INC.

PROSPECTUS SUPPLEMENT

Joint Bookrunning Managers

Jefferies & Company

Piper Jaffray

Co-Managers

Imperial Capital

Stephens Inc.

March 4, 2010