Gevo, Inc. Form 424B5 January 28, 2015 Table of Contents

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The information in this prospectus supplement is not complete and may be changed. This prospectus supplement and the accompanying prospectus are not an offer to sell these securities and are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

PROSPECTUS SUPPLEMENT (Subject to Completion)

DATED JANUARY 28, 2015

To Prospectus dated May 15, 2013

Gevo, Inc.

Common Stock Units

Consisting of One Share of Common Stock, Series A Warrants to Purchase One Share of Common Stock and Series B Warrants to Purchase One Share of Common Stock

We are offering common stock units, with each common stock unit consisting of one share of our common stock,

Series A warrants to purchase one share of our common stock and

Series B warrants to purchase one share of our common stock (and the common stock issuable from time to time upon exercise of each of the warrants) pursuant to this prospectus supplement and the accompanying prospectus. Each common stock unit will be sold to investors in this offering at a negotiated price of \$ per common stock unit.

The common stock units will not be issued or certificated. The shares of common stock and the warrants are immediately separable and will be issued separately, but will be purchased together in this offering.

The Series A warrants will be exercisable during the period commencing from the date of original issuance and ending on February , 2020, the expiration date of the Series A warrants, at an initial exercise price of \$ per share of common stock. The Series B warrants will be exercisable during the period commencing from the date of original issuance and ending on August , 2015, the expiration date of the Series B warrants, at an initial exercise price of \$ per share of common stock. See Description of Our Common Stock and Description of Our Warrants for more information on the securities offered hereby.

Our common stock is traded on the NASDAQ Capital Market under the symbol GEVO. On January 26, 2015, the last reported sale price of our common stock on the NASDAQ Capital Market was \$0.29 per share. The warrants are not and will not be listed for trading on the NASDAQ Capital Market, or any other securities exchange.

Investing in our securities involves a high degree of risk. Before buying any securities, you should review carefully the risks and uncertainties described under the heading <u>Risk Factors</u> beginning on page S-13 of this prospectus supplement, on page 5 of the accompanying prospectus and in the documents incorporated by reference into this prospectus supplement.

Neither the U.S. 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 or complete. Any representation to the contrary is a criminal offense.

	Per Unit	Total
Public offering price	\$	\$
Underwriting discount ⁽¹⁾	\$	\$
Proceeds, before expenses, to Gevo, Inc.	\$	\$

(1) We have also agreed to reimburse the underwriter for certain out-of-pocket-expenses incurred by it. See Underwriting for more information on expense reimbursement.

Delivery of the shares of common stock and warrants is expected to be made on or about February , 2015.

Cowen and Company

The date of this prospectus supplement is January , 2015.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the U.S. Securities and Exchange Commission (the SEC) utilizing a shelf registration process. This document is in two parts. The first part is this prospectus supplement, including the documents incorporated by reference herein, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference therein, provides more general information. Generally, when we refer to the prospectus, we are referring to both parts of this document combined. We urge you to carefully read this prospectus supplement and the accompanying prospectus, and the documents incorporated by reference herein and therein, before buying any of the securities being offered under this prospectus supplement. This prospectus supplement may add or update information contained in the accompanying prospectus and the documents incorporated by reference therein. To the extent that any statement we make in this prospectus supplement is inconsistent with statements made in the accompanying prospectus or any documents incorporated by reference therein that were filed before the date of this prospectus supplement, the statements made in this prospectus supplement will be deemed to modify or supersede those made in the accompanying prospectus and such documents incorporated by reference therein.

You should rely only on the information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference herein or therein. 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 supplement and the accompanying prospectus. You should not rely on any unauthorized information or representation. This prospectus supplement is an offer to sell only the securities offered hereby, and only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus supplement and the accompanying prospectus is accurate only as of the date on the front of the applicable 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 date of delivery of this prospectus supplement or the accompanying prospectus, or the date of any sale of a security.

Unless otherwise mentioned or unless the context requires otherwise, all references in this prospectus to the Company, we, us, our, and Gevo refer to Gevo, Inc., a Delaware corporation, and its consolidated subsidiaries.

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CONVENTIONS THAT APPLY TO THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus contain estimates and other information concerning our target markets that are based on industry publications, surveys and forecasts, including those generated by the U.S. Energy Information Association (the EIA), the International Energy Agency (the IEA), and Nexant, Inc. (Nexant). Certain target market sizes presented in this prospectus supplement have been calculated by us (as further described below) based on such information. This information involves a number of assumptions and limitations and you are cautioned not to give undue weight to this information. Please read the section of this prospectus supplement entitled Cautionary Note Regarding Forward-Looking Statements. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in the section entitled Risk Factors beginning on page S-13. These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

With respect to calculation of product market volumes:

product market volumes are provided solely to show the magnitude of the potential markets for isobutanol and the products derived from it. They are not intended to be projections of our actual isobutanol production or sales;

product market volume calculations for fuels markets are based on data available for the year 2011 from the IEA;

product market volume calculations for chemicals markets are based on data available for the year 2012 (the most current data available from Nexant); and

volume data with respect to target market sizes is derived from data included in various industry publications, surveys and forecasts generated by the EIA, the IEA and Nexant.

We have converted these market sizes into volumes of isobutanol as follows:

we calculated the size of the market for isobutanol as a gasoline blendstock and oxygenate by multiplying the world gasoline market volume by an estimated 12.5% by volume isobutanol blend ratio;

we calculated the size of the specialty chemicals markets by substituting volumes of isobutanol equivalent to the volume of products currently used to serve these markets;

we calculated the size of the petrochemicals and hydrocarbon fuels markets by calculating the amount of isobutanol that, if converted into the target products at theoretical yield, would be needed to fully serve these markets (in substitution for the volume of products currently used to serve these markets); and

for consistency in measurement, where necessary we converted all market sizes into gallons. Conversion into gallons for the fuels markets is based upon fuel densities identified by Air BP Ltd. and the American Petroleum Institute.

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PROSPECTUS SUPPLEMENT SUMMARY

This summary is not complete and does not contain all of the information that you should consider before investing in the securities offered by this prospectus. You should read this summary together with the entire prospectus supplement and the accompanying prospectus, including our financial statements, the notes to those financial statements and the other documents that are incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. See the Risk Factors section of this prospectus supplement beginning on page S-13 for a discussion of the risks involved in investing in our securities.

Gevo, Inc.

Our Business

We are a renewable chemicals and next generation biofuels company. Our strategy is to commercialize biobased alternatives to petroleum-based products to allow for the optimization of fermentation facilities—assets, with the ultimate goal of maximizing cash flows from the operation of those assets. We have developed proprietary technology that uses a combination of synthetic biology, metabolic engineering, chemistry and chemical engineering to focus primarily on the production of isobutanol, as well as related products from renewable feedstocks. Isobutanol is a four-carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints and coatings or as a value-added gasoline blendstock. Isobutanol can also be converted into butenes using dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of hydrocarbon fuels, lubricants, polyester, rubber, plastics, fibers and other polymers. We believe that the products derived from isobutanol have potential applications in substantially all of the global hydrocarbon fuels market, representing a potential market for isobutanol of approximately 1,000 billion gallons per year (BGPY), and in approximately 40% of the global petrochemicals market, representing a potential market for isobutanol of approximately 70 BGPY. When combined with a potential specialty chemical market for isobutanol of approximately 1.2 BGPY, we believe that the potential global market for isobutanol is greater than 1,100 BGPY.

We believe that products derived from our isobutanol will be drop-in products, which means that our customers will be able to replace petroleum-based intermediate products with renewable isobutanol-based intermediate products without modification to their equipment or production processes. The final products produced from our renewable isobutanol-based intermediate products should be chemically and physically identical to those produced from petroleum-based intermediate products, except that they will contain carbon from renewable sources. Customer interest in our renewable isobutanol is primarily driven by our production route, which we believe will be cost-efficient, and our renewable isobutanol is potential to serve as a cost-effective, environmentally sensitive alternative to the petroleum-based intermediate products that they currently use. We believe that at every step of the value chain, renewable products that are chemically identical to the incumbent petrochemical products will have lower market adoption hurdles in contrast with other bioindustrial products because the infrastructure and applications for such products already exist. In addition, we believe that products made from biobased isobutanol will be subject to less raw material cost volatility than the petroleum-based products in use today because of the lower historical cost volatility of agricultural feedstocks compared to oil.

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology ($GIF\Psi$), an integrated technology platform for the efficient production and separation of renewable isobutanol. $GIFT^{\circledast}$ consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be

compatible with the existing approximately 23 BGPY of global

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operating ethanol production capacity, as estimated by the Renewable Fuels Association. GIFT® is designed to permit (i) the retrofit of existing ethanol capacity to produce isobutanol, ethanol or both products simultaneously, or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility—s existing ethanol production by adding additional fermentation capacity side-by-side with the facility—s existing ethanol fermentation capacity (collectively referred to as—Retrofit—). Having the flexibility to switch between the production of isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT® is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks. We believe that our production route will be cost-efficient and will enable rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

We expect that the combination of our efficient proprietary technology, our marketing focus on providing drop-in substitutes for incumbent petrochemical products and our relatively low capital investment Retrofits will mitigate many of the historical issues associated with the commercialization of renewable chemicals and fuels.

Direct Use Markets

Without modification, isobutanol has applications in the specialty chemical and gasoline blendstock markets. Since our potential customers in these markets would not be required to develop any additional infrastructure to use our isobutanol, we believe that selling into these markets will result in a relatively low risk profile and produce attractive margins.

Specialty Chemicals

Isobutanol has direct applications as a specialty chemical. High-purity and chemical-grade isobutanol can be used as a solvent and chemical intermediate. We plan to produce high-purity and chemical-grade isobutanol that can be used in the existing butanol markets as a cost-effective, environmentally sensitive alternative to petroleum-based products.

We believe that our production route will be cost-efficient and will allow for significant expansion of the historical isobutanol markets within existing butanol markets through displacing n-butanol, a related compound to isobutanol that is currently sold into butanol markets.

We estimate the total addressable worldwide market for isobutanol as a specialty chemical to be approximately 1.2 BGPY, or approximately \$5.0 billion annually, based on average 2014 ICIS isobutanol pricing.

Gasoline Blendstocks

Isobutanol has direct applications as a gasoline blendstock. Fuel-grade isobutanol may be used as a high energy content, low Reid Vapor Pressure, gasoline blendstock and oxygenate. Based on isobutanol s low water solubility, in contrast with ethanol, we believe that isobutanol will be compatible with existing refinery infrastructure, allowing for blending at the refinery rather than blending at the terminal.

Further, based on isobutanol s high energy content and low water solubility, as well as testing completed by the National Marine Manufacturers Association, the Outdoor Power Equipment Institute and Briggs & Stratton, we believe that isobutanol has direct applications as a blendstock in high value specialty fuels markets serving marine, off-road vehicles, small engine and sports vehicle markets.

We estimate the total addressable worldwide market for isobutanol as a gasoline blendstock to be approximately 40 BGPY, or approximately \$100 billion annually.

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Butene and Hydrocarbon Markets

Beyond direct use as a specialty chemical and gasoline blendstock, isobutanol can be dehydrated to produce butenes which can then be converted into other products such as para-xylene, jet fuel and many other hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand. The conversion of isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets.

Jet Fuel

We have demonstrated the conversion of our isobutanol into a renewable jet fuel blendstock that meets current ASTM International (ASTM) and U.S. military synthetic jet fuel blendstock performance and purity requirements. We have successfully delivered to the U.S. Air Force, the U.S. Army and the U.S. Navy a combined total of approximately 76,000 gallons of jet fuel made from isobutanol. We are working to obtain an ASTM standard specification for the use of such jet fuel blendstock in commercial aviation. We have already presented positive test results from fit-for-purpose testing of our biojet fuel to ASTM s alcohol-to-jet (ATJ) task force. The full ASTM specification for our ATJ fuel is expected to be issued in 2015.

Military and commercial airlines are currently looking to form strategic alliances with biofuels companies to meet their renewable fuel needs.

We estimate the global market for jet fuel to be approximately 80 BGPY, or approximately \$210 billion annually.

Para-xylene (PX) and Polyethylene Terephthalate (PET)

Isobutanol can be used to produce PX, polyester and their derivatives, which are used in the beverage, food packaging, textile and fibers markets. PX is a key raw material in PET production.

We estimate the global market for PET to be approximately 50 million metric tons per year, or approximately \$100 billion annually, of which approximately 30% will be used for plastic bottles and containers. We have demonstrated the conversion of our isobutanol into renewable PX at the demonstration plant in Silsbee, Texas. This demonstration plant has been producing renewable PX since September 2013 and, in May 2014, we shipped renewable PX to Toray Industries, Inc. (Toray Industries) under the terms of a supply agreement.

Butenes

Traditionally butenes have been produced as co-products from the process of cracking naptha in the production of ethylene. Historically low natural gas prices and reported reductions in the use of naptha as the feedstock for the production of ethylene have resulted in a projected reduction in the volume of available butenes. This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of

butenes.

Chemical-grade isobutanol can be sold to isobutylene and n-butene (butenes) chemicals users for conversion into lubricants, methyl methacrylate and rubber applications.

We estimate the total addressable worldwide market for butenes to be approximately 2.1 BGPY, or approximately \$6.0 billion annually.

Other Hydrocarbon Fuels

Diesel fuel, gasoline, isooctane, isooctane and bunker fuel may also be produced from our isobutanol. We have demonstrated the conversion of isobutanol to isooctane and renewable gasoline. We have also converted isobutanol to kerosene with properties that we expect may be fit for diesel blending applications.

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Competitive Strengths

Our competitive strengths include:

Renewable platform molecule to serve multiple large drop-in markets. We believe that our isobutanol will readily substitute for petroleum-based isobutanol and a portion of the petroleum-based n-butanol in use in the specialty chemicals market which exists today. We believe isobutanol can be readily blended with gasoline in existing infrastructure to serve the need for biofuels blending demanded by the U.S. Environmental Protection Agency (the EPA) for fuel manufacturers. We also believe that the butenes produced from our isobutanol will have potential applications in substantially all of the global hydrocarbon fuels market and will serve as renewable alternatives in the production of polyester, rubber, plastics, fibers and other polymers, which comprise approximately 40% of the global petrochemicals market.

Proprietary, low-cost technology with global applications. We believe that GIFT® is capable of producing isobutanol cost-effectively from renewable carbohydrate sources, which we expect will enable the economic production of hydrocarbon derivatives of isobutanol. Our biocatalysts have demonstrated a product yield on sugar of approximately 94% of theoretical maximum by weight, which is close to the maximum actual yield attainable from fermentable sugars. Collectively, we believe that these attributes, coupled with our ability to leverage the existing ethanol production infrastructure, will create relatively low capital cost routes to renewable isobutanol production which will enable our isobutanol to be economically competitive with many of the petroleum-derived products used in the chemicals and fuels markets today. Additionally, GIFT® is designed to enable the economic production of isobutanol and other alcohols from multiple renewable feedstocks, which will allow our technology to be deployed worldwide.

Capital-light commercial deployment strategy optimized for existing infrastructure. We believe that GIFT® allows us to leverage the existing approximately 23 BGPY of global operating ethanol production capacity and that our Retrofit strategy supports a relatively low capital cost route to isobutanol production. Using a factored estimate based on the detailed design of our plant located in Luverne, Minnesota (the Agri-Energy Facility), in combination with our learning from the Retrofit of that facility, we estimate base Retrofit costs to convert an existing grain ethanol plant s production capacity to isobutanol production capacity will be approximately \$1.00 per gallon of existing annual ethanol capacity. This projection translates to approximately \$50 million for a 50 million gallon per year (MGPY) ethanol facility and approximately \$100 million for a 100 MGPY ethanol facility. These projected Retrofit capital expenditures are less than estimates for new plant construction for the production of advanced biofuels, including cellulosic ethanol.

Technology design enables optimized asset utilization. Our GIFT® design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which we believe will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. Following the completion of a Retrofit, we expect the original plant to operate in essentially the same manner as it did prior to the Retrofit, producing primary products (isobutanol and/or ethanol) and co-products (isobutanol distiller s grains (iDGs) and/or distiller s grains). In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to

maximize asset utilization and site cash flows, we believe that this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior margin opportunities from the production of ethanol. Our long-term goal is to maximize margins at any plant that has undergone a Retrofit.

GIFT[®] *demonstrated at commercially relevant scale.* We have demonstrated fermentation operations with the use of our GIFT[®] separation system at commercial scale in one million liter fermenters using a

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corn mash feedstock at our Agri-Energy Facility. In addition, we previously completed the Retrofit of a one MGPY ethanol facility in St. Joseph, Missouri with our proprietary engineering package designed in partnership with ICM, Inc. (ICM) and we successfully produced isobutanol at this facility.

Off-take agreements and strategic relationships with chemicals, fuels, animal feed and engineering industry leaders in place. We have entered into off-take agreements and strategic relationships with global industry leaders to accelerate the execution of our commercial deployment strategy both in the U.S. and internationally. To facilitate the adoption of our technology at existing ethanol plants, we have entered into an exclusive alliance with ICM. We expect our relationships with entities such as Mansfield Oil Company, Toray Industries, the U.S. Air Force, the U.S. Army and the U.S. Navy, among others, to contribute to the development of new chemical and fuel market applications of our isobutanol. To enable the future integration of cellulosic feedstocks into our isobutanol production process, we have obtained an exclusive license from Cargill, Incorporated, to integrate its proprietary biocatalysts into our GIFT® system. To accelerate the adoption of isobutanol as a platform molecule and to support the development of hydrocarbon products derived from our isobutanol, we have developed a hydrocarbon demonstration plant in Silsbee, Texas with South Hampton Resources, Inc.

Experienced team with a proven track record. Our management team offers an exceptional combination of scientific, operational and managerial expertise and our CEO, Dr. Patrick Gruber, has spent over 20 years developing and successfully commercializing industrial biotechnology products. Across the Company, our employees have hundreds of combined years of biotechnology, synthetic biology and biobased product experience. Our employees have been inventors on over 300 patents and patent applications over the course of their careers. Our team members have played key roles in the commercialization of several successful, large-scale industrial biotechnology projects, including a sugar substitute sweetener, four organic acid technologies, an animal feed additive, monomers for plastics and biobased plastics and the first biologically derived high-purity monomer for the production of plastic at a world-scale production facility. As a result of their extensive experience, members of our management team play important roles in the industrial biotechnology industry at national and international levels.

Information Regarding Liquidity

From inception to December 31, 2014, we have funded our operations primarily through equity offerings, issuances of debt, borrowings under our secured debt financing arrangements and revenues earned primarily from the sale of ethanol and related products. During the three months ended December 31, 2014, we recorded approximately \$9.0 million of revenue associated primarily with sales of ethanol, distillers—grains and PX. Our cash and cash equivalents at December 31, 2014 totaled approximately \$6.4 million which is primarily being used for the following:
(i) operating activities and completion of the side-by-side configuration of our Agri-Energy Facility; (ii) operating activities at our corporate headquarters in Colorado, including research and development work; (iii) capital improvements primarily associated with the Agri-Energy Facility; (iv) costs associated with optimizing isobutanol production technology; (v) costs associated with the ongoing litigation with Butamax Advanced Biofuels LLC (Butamax), a joint venture between British Petroleum (BP), E.I. du Pont de Nemours and Company (DuPont), and Dupont and BP Biofuels; and (vi) debt service obligations.

We expect to incur future net losses as we continue to fund the development and commercialization of our product candidates. Our transition to profitability is dependent upon, among other things, the successful development and commercialization of our product candidates and the achievement of a level of revenues adequate to support our existing cost structure. We may never achieve profitability or generate positive cash flows, and unless and until we do,

we will continue to need to raise additional cash. We intend to fund future operations through additional private and/or public offerings of debt or equity securities. In addition, we may seek additional capital through arrangements with strategic partners or from other sources, may seek to restructure our debt and will continue to address our cost structure. Notwithstanding, there can be no assurance

that we will be able to raise additional funds, or achieve or sustain profitability or positive cash flows from operations. These conditions raise substantial doubt about our ability to continue as a going concern.

Despite our continued success in meeting isobutanol fermentation targets, producing isobutanol and ethanol simultaneously and our progress toward achieving sustainable breakeven earnings before interest, taxes, depreciation and amortization (EBITDA) at the Agri-Energy Facility, we continue to face significant expenses related to the ongoing litigation with Butamax. While the United States District Court has temporarily stayed the litigation with Butamax involving certain patents, trials related to other patents were recently scheduled for August 2015 and April 2016 and we expect to incur significant costs preparing for and participating in these upcoming trials. We continue to believe that the Butamax complaints are without merit. However, if we are unable to raise the significant funds that will be required to continue to defend our freedom to operate, we could be forced to change our business strategy which may include one or more of the following: (i) terminating the research and development, manufacture, sale and use of products that include the subject intellectual property; (ii) conducting research and development and manufacturing any products that include the subject intellectual property outside of the United States; (iii) shifting our focus to the production of ethanol and/or the development of hydrocarbon products, including those that can be produced from ethanol; or (iv) pursuing strategic alternatives, including the monetization of some or all of our assets, in order to maximize stockholder value.

Recent Developments

Transfer of Common Stock Listing to the NASDAQ Capital Market

On June 30, 2014, we received a deficiency letter from the Listing Qualifications Department of The NASDAQ Stock Market, notifying us that, for the prior 30 consecutive business days, the closing bid price of our common stock was not maintained at the minimum required closing bid price of at least \$1.00 per share as required for continued listing on the NASDAQ Global Market. As part of our efforts to regain compliance with this requirement, the listing of our common stock was transferred from the NASDAQ Global Market to the NASDAQ Capital Market effective January 5, 2015. The transfer of the listing of our common stock to the NASDAQ Capital Market is not expected to have any impact on the trading in our common stock, and our common stock continues to trade under the symbol GEVO.

Corporate Restructuring

On January 20, 2015, we announced certain cost savings initiatives to improve our overall cash flow. These initiatives, and others previously taken, are expected to result in a decrease in our average monthly corporate-wide EBITDA burn rate from approximately \$2.50-\$2.75 million in 2014, to \$1.50-\$1.75 million in 2015. The key cost saving step is a reduction in workforce at Gevo s headquarters of 23 employees, decreasing the headcount in Englewood from 56 to 33. In addition, Dr. Gruber, our CEO, has volunteered to take 25% of his base salary in the form of our common stock, through a deferred compensation program to be implemented by the compensation committee of our board of directors. These steps are part of our ongoing expense management strategy designed to extend our operating runway so we can further develop and generate value through the monetization of our isobutanol and alcohol-to-hydrocarbons technologies.

We expect to operate the Agri-Energy Facility to maximize the cash flow from the facility, while continuing the optimization of our isobutanol technology at a commercial scale. Over certain periods of time, this may include operating the plant for the sole production of ethanol across all four fermenters. We anticipate continuing some level of isobutanol production going forward to ensure that we have sufficient isobutanol volumes to meet ongoing demand from customers such as the recently announced relationships with Brenntag Canada and Gulf Racing Fuels, and for

use as a feedstock for the production of hydrocarbons at our alcohol-to-hydrocarbons demonstration facility in Silsbee, Texas, as well as to continue to prove out aspects of our isobutanol technology at a commercial scale.

Victory in U.S. Supreme Court

On January 27, 2015, we announced that on January 26, 2015, the U.S. Supreme Court (the Supreme Court), ruled in our favor by vacating an earlier Federal Circuit Court of Appeals (the Appeals Court) ruling on the interpretation of a key patent claim term. As a result, the prior Delaware District Court (the District Court) ruling in favor of Gevo is effectively reinstated while the case is remanded back to the Appeals Court for consideration in light of the new standard of appellate review decided in Teva Pharmaceuticals USA, Inc. v. Sandoz, Inc. (Teva).

In Teva, the Supreme Court ruled that the Appeals Court must apply a more stringent clear error standard of review, rather than the previously applied de novo standard of review for facts underlying the claim construction analysis. Applying this clear error standard of review to our case, the Appeals Court cannot set aside the District Court s findings of fact in our favor unless they were clearly erroneous. In the underlying District Court action, a final judgment of non-infringement was entered in our favor following the acknowledgment by Butamax that we do not infringe Butamax s Patent Nos. 7,851,188 and 7,993,889 under the District Court s construction.

Our Corporate Information

We were incorporated in Delaware in June 2005 under the name Methanotech, Inc. and filed an amendment to our certificate of incorporation changing our name to Gevo, Inc. on March 29, 2006. Our principal executive offices are located at 345 Inverness Drive South, Building C, Suite 310, Englewood, Colorado 80112, and our telephone number is (303) 858-8358. We maintain an internet website at *www.gevo.com*. Information contained in or accessible through our website does not constitute part of this prospectus supplement or the accompanying prospectus.

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The Offering

Common stock offered by us

shares of common stock.

Warrants offered by us

Series A warrants to purchase up to shares of common stock and Series B warrants to purchase up to shares of common stock. The Series A warrants will be exercisable during the period commencing from the date of original issuance and ending on February , 2020, the expiration date of the warrants, at an exercise price of \$ share of common stock. The Series B warrants will be exercisable during the period commencing from the date of original issuance and ending on August 2015, the expiration date of the Series B warrants, at an initial exercise price of \$ per share of common stock. This prospectus also relates to the offering of the shares of common stock issuable upon exercise of the warrants. The exercise price of the warrants and the number of shares into which the warrants may be exercised are subject to adjustment in certain circumstances.

Common stock outstanding after this offering

shares of common stock.(1)

Limitation on ownership of warrants

Any exercise notice with respect to the warrants delivered by a holder will be deemed automatically not to have been so delivered by such holder to the extent, but only to the extent, that delivery of shares of our common stock or any other security otherwise deliverable upon such exercise would result in such holder having a beneficial ownership, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended (the Exchange Act), and the rules thereunder (Beneficial Ownership), of our common stock or any other class of any equity security (other than an exempted security) that is registered pursuant to Section 12 of the Exchange Act (a Class) in excess of 19.999% of the number of outstanding shares of our common stock or such Class (the 19.999% Ownership Limitation).

Notwithstanding the foregoing, during any period of time in which a holder s Beneficial Ownership of our common stock or any other Class is less than 10%, any exercise notice with respect to the warrants delivered by a holder will be deemed automatically not to have been so delivered by such holder to the extent, but only to the extent, that delivery of shares of our common stock or any other security otherwise deliverable upon such

conversion or exercise would result in such holder having a Beneficial Ownership of our common stock or any other Class in excess of 9.999% of the number of outstanding shares of our common stock or such Class (the 9.999% Ownership Limitation).

Notwithstanding the foregoing, during any period of time in which a holder s Beneficial Ownership of our common stock or any other Class is less than 5%, any exercise notice with respect to the warrants delivered by a holder will be deemed automatically not to have been so delivered by such holder to the extent, but only to the extent, that delivery of shares of our common stock or any other security otherwise deliverable upon such exercise would result in such holder having a Beneficial Ownership of our common stock or any other Class in excess of 4.999% of the number of outstanding shares of our common stock or such Class (the 4.999% Ownership Limitation).

By written notice to us, any holder may from time to time increase or decrease either or both of the 9.999% Ownership Limitation or the 4.999% Ownership Limitation to any other percentage not in excess of the 19.999% Ownership Limitation; provided that any such increase will not be effective until the 65th day after such notice is delivered to us.

We expect the net proceeds from this offering to be approximately \$\\$million, after deducting underwriting discounts and commissions, as described in Underwriting, and estimated offering expenses payable by us. We currently intend to use the net proceeds from this offering to fund working capital, potential capital optimizations at the Agri-Energy Facility and for other general corporate purposes.

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in demand deposit accounts. See Use of

Use of proceeds

Proceeds on page S-51 of this prospectus supplement.

NASDAQ Capital Market symbol

GEVO . The warrants are not and will not be listed for trading on the NASDAQ Capital Market, or any other securities exchange.

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Transfer Agent and Warrant Agent American Stock Transfer & Trust Company

Risk factors This investment involves a high degree of risk. See

Risk Factors beginning on page S-13 of this prospectus supplement for a discussion of factors you should carefully consider before deciding to invest in our

securities.

(1) The number of shares of our common stock to be outstanding immediately after the closing of this offering is based on 99,628,054 shares of common stock outstanding as of December 31, 2014 and excludes the following:

68,529,929 shares reserved for issuance pursuant to outstanding options, warrants or rights to acquire from the Company, or instruments convertible into or exchangeable for, or agreements or understandings with respect to the sale or issuance by the Company of, common stock;

1,353,423 shares of common stock available for future grant under our 2010 Stock Incentive Plan (as amended, the 2010 Plan);

1,150,939 shares of common stock available for issuance pursuant to our Employee Stock Purchase Plan; and

shares of common stock issuable upon the exercise of the warrants offered hereby.

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Summary Financial Information

In the tables below, we provide you with a summary of our historical consolidated financial information. The information is only a summary, and you should read it together with the financial information incorporated by reference in this document. See Incorporation of Certain Documents by Reference on page S-67 of this prospectus supplement and Where You Can Find Additional Information on page S-67 of this prospectus supplement. The consolidated statements of operations data for the years ended December 31, 2011, 2012 and 2013 is derived from our audited financial statements included in our Annual Report on Form 10-K for the year ended December 31, 2013, and incorporated by reference herein. The consolidated balance sheet data as of September 30, 2014 and consolidated statements of operations data for the three and nine months ended September 30, 2013 and 2014 is derived from our unaudited quarterly financial statements included in our Quarterly Report on Form 10-Q for the three and nine months ended September 30, 2014 and incorporated by reference herein. These unaudited financial statements have been prepared on a basis consistent with our audited financial statements and include, in the opinion of management, all adjustments, consisting only of normal recurring adjustments, necessary for the fair statement of the financial information in those statements.

Our consolidated subsidiary Agri-Energy, LLC, a Minnesota limited liability company (Agri-Energy), commenced the Retrofit of the Agri-Energy Facility in 2011 and commenced initial startup operations for the production of isobutanol at this facility in May 2012. In September 2012, we made the strategic decision to pause isobutanol production at the Agri-Energy Facility to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, we modified our Agri-Energy Facility in order to increase the isobutanol production rate. In June 2013, we resumed the limited production of isobutanol operating one fermenter and one GIFT® separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT[®] efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT® system to further verify our results with a second configuration of equipment. In October 2013, we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT® technology and further modify the Agri-Energy Facility to enable the simultaneous production of isobutanol and ethanol. In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. In line with our strategy to maximize asset utilization and site cash flows, we believe that this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of potentially superior margins from the production of ethanol. Our long-term goal is to maximize margins at the Agri-Energy Facility.

Following our acquisition of Agri-Energy on September 22, 2010, we have primarily derived revenue from the sale of ethanol, distiller s grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. The production of ethanol alone is not our intended business and our future strategy is expected to depend on our ability to produce and market isobutanol and products derived from isobutanol. Given that the production of ethanol alone is not our intended business, and we are only beginning to achieve more consistent production and revenue from the sale of isobutanol, the historical operating results of Agri-Energy may not be indicative of future operating results for Agri-Energy or Gevo.

For purposes of the disclosure contained in this section, the company, we, us and our refer to Gevo, Inc., Gevo Development, LLC and Agri-Energy, as the context requires.

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ated statements of operations	Years 2011	Ended Decemb 2012	er 31, 2013	Three Mon Septem 2013		Nine Mon Septem 2013	
and cost of goods sold:							
ales and related products, net	\$ 63,742,000	\$ 19,908,000	\$	\$	\$ 9,197,000	\$	\$ 14,
oon revenue		650,000	2,157,000	704,000	778,000	2,016,000	3,
other revenue	807,000	2,818,000	2,722,000	406,000	166,000	1,168,000	
8		1,009,000	3,345,000	17,000		3,345,000	
nues	64,549,000	24,385,000	8,224,000	1,127,000	10,141,000	6,529,000	18,
rn sales		918,000	3,391,000	16,000		3,391,000	
oods sold	60,588,000	31,492,000	14,522,000	4,730,000	11,760,000	9,474,000	24,
ss) margin	3,961,000	(8,025,000)	(9,689,000)	(3,619,000)	(1,619,000)	(6,336,000)	(5,
g expenses:							
and development	19,753,000	19,431,000	20,179,000	5,476,000	3,723,000	16,280,000	11,
eneral and administrative	28,890,000	43,981,000	25,548,000	6,668,000	3,570,000	19,897,000	13,
rating expenses	11,000	45,961,000	99,000	0,008,000	3,370,000	19,097,000	13,
rating expenses	11,000		99,000				
rating expenses	48,654,000	63,412,000	45,826,000	12,144,000	7,293,000	36,177,000	24,
operations	(44,693,000)	(71,437,000)	(55,515,000)	(15,763,000)	(8,912,000)	(42,513,000)	(30,
pense) income:	, , , ,						,
pense	\$ (3,577,000)	\$ (6,338,000)	\$ (9,301,000)	\$ (1,733,000)	\$ (2,017,000)	\$ (7,321,000)	\$ (6,
spense debt issuance cost					(581,000)		(3,
onversion of debt			(2,038,000)		, , ,	(2,038,000)	
) from change in fair value of derivative of the 2022 Notes		17,000,000	3,114,000	1,587,000	726,000	2,280,000	3,
s) from change in fair value of warrant liability	(29,000)		(3,195,000)		4,173,000		6,
change in fair value of 2017					5,673,000		
ome	85,000	63,000	129,000	24,000	3,073,000	115,000	
onic	05,000	03,000	127,000	24,000		113,000	
er (expense) income	(3,521,000)	10,725,000	(11,291,000)	(122,000)	7,974,000	(6,964,000)	
	(48,214,000)	(60,712,000)	(66,806,000)	(15,885,000)	(938,000)	(49,477,000)	(30,
lividend amortization of conversion feature on liversion feature on liversible preferred stock	(1,094,000)						
ttributable to Gevo, Inc. stockholders	\$ (49,308,000)	\$ (60,712,00)	\$ (66,806,000)	\$ (15,885,000)	\$ (938,000)	\$ (49,477,000)	\$ (30,
	\$ (2.15)	\$ (1.86)	\$ (1.48)	\$ (0.34)	\$ (0.01)	\$ (1.14)	\$

er share of common stock le to Gevo, Inc. stockholders, diluted

-average number of common							
d in computing net loss per							
ommon stock, basic and diluted	22,909,916	32,619,091	45,071,618	46,052,867	87,121,184	43,492,291	74

	As of Septer	nber, 2014
Consolidated balance sheet data:	Actual	As Adjusted ⁽¹⁾
Cash and cash equivalents	\$ 14,010,000	\$
Total assets	107,481,000	
Secured debt, net of debt discounts	839,000	
Convertible Notes, net	38,484,000	
Other long-term liabilities	348,000	
Total liabilities	49,956,000	
Accumulated deficit	(292,219,000)	
Total stockholders equity	57,525,000	

(1) The as adjusted consolidated balance sheet data gives effect to this offering and the receipt of the net proceeds therefrom, after deducting underwriter discounts and commissions and estimated offering expenses.

RISK FACTORS

An investment in our securities involves a substantial risk of loss. You should carefully consider these risk factors, together with all of the other information included or incorporated by reference in this prospectus supplement and the accompanying prospectus, as modified and superseded pursuant to Rule 412 under the Securities Act of 1933, as amended (the Securities Act), before you decide to invest in our securities. The occurrence of any of the following risks could harm our business. In that case, the trading price of our common stock and warrants could decline, and you may lose all or part of your investment. Additional risks and uncertainties not presently known to us or that we currently believe are immaterial may also impair our business operations and our liquidity. You should also refer to the other information contained in this prospectus supplement and the accompanying prospectus or incorporated by reference herein or therein, including our financial statements and the notes to those statements and the information set forth under the heading Cautionary Note Regarding Forward-Looking Statements.

Certain Risks Related to Owning Our Securities.

We have broad discretion in the use of the net proceeds from this offering and may not use them effectively, which could cause the value of your investment to decline.

Although we currently intend to use the net proceeds from this offering in the manner described in Use of Proceeds elsewhere in this prospectus supplement, we will have broad discretion in the application of the net proceeds of this offering. You will not have the opportunity to influence our decisions on how to use our net proceeds from this offering. Our failure to apply the net proceeds effectively could affect our ability to continue to develop and sell our products and grow our business, which could cause the value of your investment to decline.

We have substantial indebtedness outstanding and may incur additional indebtedness in the future. Our indebtedness exposes us to risks that could adversely affect our business, financial condition and results of operations.

As of September 30, 2014, the aggregate amount of the outstanding principal and final payments under our amended and restated loan and security agreement with TriplePoint Capital LLC (TriplePoint) was approximately \$0.9 million and we had \$26.1 million in outstanding 10.0% Convertible Senior Secured Notes due 2017, which were issued to WB Gevo, Ltd. (Whitebox) in June 2014 (the 2017 Notes), and \$26.9 million in outstanding 7.5% Convertible Senior Notes due 2022, which were issued in July 2012 (the 2022 Notes and, together with the 2017 Notes, the Convertible Notes). In addition, we and any current and future subsidiaries of ours may incur substantial additional debt in the future, subject to the specified limitations in our existing financing documents and the indentures governing the Convertible Notes. If new debt is added to our or any of our subsidiaries debt levels, the risks described in this Certain Risks Related to Owning Our Securities section could intensify.

Our current and future indebtedness could have significant negative consequences for our business, financial condition and results of operations, including:

increasing our vulnerability to adverse economic and industry conditions;

limiting our ability to obtain additional financing;

requiring the dedication of a substantial portion of our cash flow from operations to service our indebtedness, thereby reducing the amount of our cash flow available for other purposes;

limiting our flexibility in planning for, or reacting to, changes in our business; and

placing us at a possible competitive disadvantage with less leveraged competitors and competitors that may have better access to capital resources.

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We cannot assure you that we will continue to maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay principal, premium, if any, and interest on our indebtedness, or that our cash needs will not increase. If we are unable to generate sufficient cash flow or otherwise obtain funds necessary to make required payments, or if we fail to comply with the various requirements of our existing indebtedness or any other indebtedness which we may incur in the future, we would be in default, which could permit the holders of our indebtedness, including the Convertible Notes, to accelerate the maturity of such indebtedness. Any default under such indebtedness could have a material adverse effect on our business, results of operations and financial condition.

In particular, our indebtedness with Whitebox and TriplePoint is secured by liens on substantially all of our assets, including our intellectual property. If we are unable to satisfy our obligations under such instruments, Whitebox or TriplePoint, as applicable, could foreclose on our assets, including our intellectual property. Any such foreclosure could force us to substantially curtail or cease our operations which could have a material adverse effect on our business, financial condition and results of operations.

Our stock price may be volatile, and your investment in our securities could suffer a decline in value.

The market price of shares of our common stock has experienced significant price and volume fluctuations. For example, since February 19, 2011, when we became a public company, the closing sales price for one share of our common stock has reached a high of \$26.36 and a low of \$0.26.

We cannot predict whether the price of our common stock will rise or fall. A variety of factors may have a significant effect on our stock price, including:

actual or anticipated fluctuations in our financial condition and operating results;

the position of our cash and cash equivalents;

actual or anticipated changes in our growth rate relative to our competitors;

actual or anticipated fluctuations in our competitors operating results or changes in their growth rate;

announcements of technological innovations by us, our partners or our competitors;

announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;

the entry into, modification or termination of licensing arrangements, marketing arrangements, and/or research, development, commercialization, supply, off-take or distribution arrangements;

our ability to consistently produce commercial	quantities of	isobutanol	at the	Agri-Energy	Facility	and r	amp	up
production to nameplate capacity;								

additions or losses of customers;

additions or departures of key management or scientific personnel;

competition from existing products or new products that may emerge;

issuance of new or updated research reports by securities or industry analysts;

fluctuations in the valuation of companies perceived by investors to be comparable to us;

litigation involving us, our general industry or both;

disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies;

our ability to raise the funds that will be required to continue to defend our freedom to operate in light of the Butamax litigation or, if necessary, to successfully change our business strategy as a result of such litigation;

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changes in existing laws, regulations and policies applicable to our business and products, including the Renewable Fuel Standard (RFS) program, and the adoption of or failure to adopt carbon emissions regulation;

announcements or expectations of additional financing efforts or the pursuit of strategic alternatives;

sales of our common stock or equity-linked securities, such as warrants, by us or our stockholders;

share price and volume fluctuations attributable to inconsistent trading volume levels of our shares;

general market conditions in our industry; and

general economic and market conditions, including the recent financial crisis.

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock, regardless of our operating performance, and cause the value of your investment to decline. Because the Convertible Notes are convertible into our common stock and the warrants are exercisable into our common stock, volatility or a reduction in the market price of our common stock could have an adverse effect on the trading price of the Convertible Notes and the warrants. Holders who receive common stock upon conversion of the Convertible Notes or exercise of the warrants will also be subject to the risk of volatility and a reduction in the market price of our common stock. In addition, the existence of the Convertible Notes and our outstanding warrants, together with the warrants being offered hereby, may encourage short selling in our common stock by market participants because the conversion of the Convertible Notes or exercise of the warrants could depress the price of our common stock.

Additionally, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation or other derivative shareholder lawsuits. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management s attention from other business concerns, which could seriously harm our business regardless of the outcome.

The price of our common stock could also be affected by possible sales of common stock by investors who view the Convertible Notes or warrants as a more attractive means of equity participation in us and by hedging or arbitrage activity involving our common stock. The hedging or arbitrage could, in turn, affect the trading prices of the Convertible Notes and warrants, or any common stock that holders receive upon conversion of the Convertible Notes or exercise of the warrants.

Sales of a substantial number of shares of our common stock or securities linked to our common stock, such as the Convertible Notes and warrants, in the public market could occur at any time. These sales, or the perception in the market that such sales may occur, could reduce the market price of our common stock.

As of September 30, 2014, stockholders who beneficially own more than 5% of our outstanding common stock, which consists of two stockholders, collectively have beneficial ownership of approximately 16.5% of our outstanding

common stock. If one or more of them were to sell a substantial portion of the shares they hold, it could cause our stock price to decline. Moreover, certain holders of our outstanding common stock (including shares of our common stock issuable upon the conversion of certain Convertible Notes or upon exercise of certain outstanding warrants) have rights, subject to certain conditions, to require us to file registration statements covering their shares and to include their shares in registration statements that we may file for ourselves or other stockholders.

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Future issuances of our common stock or instruments convertible or exercisable into our common stock, including in connection with conversions of Convertible Notes or exercises of warrants, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.

We may obtain additional funds through public or private debt or equity financings in the near future, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If we issue additional shares of common stock or instruments convertible into common stock, it may materially and adversely affect the price of our common stock. In addition, the conversion of some or all of the Convertible Notes and/or the exercise of some or all of the warrants may dilute the ownership interests of our stockholders, and any sales in the public market of any of our common stock issuable upon such conversion or exercise could adversely affect prevailing market prices of our common stock. Additionally, under the terms of certain warrants (including the warrants being offered hereby), in the event that a warrant is exercised at a time when we do not have an effective registration statement covering the underlying shares of common stock on file with the SEC, such warrant must be net exercised, which will dilute the ownership interests of existing stockholders without any corresponding benefit to the Company of a cash payment for the exercise price of such warrant.

As of September 30, 2014, we had \$26.9 million in outstanding 2022 Notes, which were convertible into 16,367,740 shares of common stock at the conversion rate in effect on September 30, 2014 (which amount includes 11,642,226 shares of common stock issuable in full satisfaction of the coupon make-whole payments due in connection therewith). The anticipated conversion of the \$26.9 million in outstanding 2022 Notes into shares of our common stock could depress the trading price of our common stock. In addition, we have the option to issue common stock to any converting holder in lieu of making any required coupon make-whole payment in cash. If we elect to issue our common stock for such payment, the stock will be valued at 90% of the simple average of the daily volume weighted average prices of our common stock for the 10 trading days ending on and including the trading day immediately preceding the conversion date. If our stock price decreases, the number of shares we would be required to deliver in connection with the coupon make-whole payments would increase. Given that the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, may prohibit us from paying, repurchasing or redeeming the 2022 Notes or making cash payments in respect of the coupon make-whole payments due upon a conversion, we may be unable to make such payment in cash. If we issue additional shares of our common stock in satisfaction of such payments, this may cause significant additional dilution to our existing stockholders.

As of September 30, 2014, we had \$26.1 million in outstanding 2017 Notes, which were convertible into 28,388,201 shares of our common stock at the conversion rate in effect on September 30, 2014. The 28,388,201 shares includes 5,850,217 shares of common stock that may be issuable from time to time in the event that the Company pays a portion of the interest on the 2017 Notes in kind or elects to pay make-whole payments due upon conversion of the 2017 Notes, if any, in shares of common stock. The anticipated conversion of the principal amount of the 2017 Notes (including any interest that is paid in kind) into shares of our common stock could depress the trading price of our common stock. In addition, subject to certain restrictions, we have the option to issue common stock to any converting holder in lieu of making any required make-whole payment in cash. If we elect to issue our common stock for such payment, it will be at the same conversion rate that is applicable to conversions of the principal amount of the 2017 Notes. If we elect to issue additional shares of our common stock for such payments, this may cause significant additional dilution to our existing stockholders.

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint and the indentures governing the Convertible Notes, may restrict our ability to engage in certain transactions.

The terms of the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint and the indentures governing the Convertible Notes, may prohibit us from engaging in certain actions, including disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain kinds of additional indebtedness, acquiring or merging with other entities, or making dividends and other restricted payments unless we receive the prior approval of the requisite lenders or

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the requisite holders of the Convertible Notes. If we are unable to obtain such approval, we could be prohibited from engaging in transactions which could be beneficial to our business and our stockholders or could be forced to repay such indebtedness in full.

The indentures governing the Convertible Notes may prohibit us from engaging in certain mergers or acquisitions and if a fundamental change of the Company occurs prior to the maturity date of the Convertible Notes, holders of the Convertible Notes will have the right, at their option, to require us to repurchase all or a portion of their Convertible Notes and, in certain circumstances, to pay the holders of Convertible Notes a make-whole payment equal to the aggregate amount of interest that would have been payable on such Convertible Notes from the repurchase date through the maturity date of such Convertible Notes. With respect to the 2022 Notes, if a fundamental change occurs prior to the maturity date of the 2022 Notes, we will in some cases be required to increase the conversion rate for a holder that elects to convert its 2022 Notes in connection with such fundamental change. With respect to the 2017 Notes, the Company has the right to increase the conversion rate of the 2017 Notes by any amount for a period of at least 20 business days if the Company s board of directors determines that such increase would be in the Company s best interest. In addition, if an extraordinary transaction occurs, holders of warrants will have the right, at their option, to require us to repurchase the unexercised portion of such warrants for an amount in cash equal to the value of the warrants, as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. These and other provisions could prevent or deter a third party from acquiring us, even where the acquisition could be beneficial to you.

The conversion or exercise prices, as applicable, of the Convertible Notes and warrants can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The conversion price of the 2022 Notes can fluctuate in certain circumstances, including in the event that we undertake certain stock dividends, splits, combinations or distributions, or if there is a fundamental change prior to the maturity date of the 2022 Notes. In such instances, the conversion price of the 2022 Notes can fluctuate materially lower than the initial conversion price of \$5.69 per share. The conversion price of the 2017 Notes can fluctuate in certain circumstances, including in the event that there is a dividend or distribution paid on shares of our common stock or a subdivision, combination or reclassification of our common stock. In such instances, the conversion price of the 2017 Notes can fluctuate materially lower than the initial conversion price of \$1.1584 per share.

The number of shares of common stock for which certain of our warrants, including the warrants being offered hereby, are exercisable may be adjusted in the event that we undertake certain stock dividends, splits, combinations, distributions, and the price at which such shares of common stock may be purchased upon exercise of the warrants may be adjusted in the event that we undertake certain issuances of common stock or convertible securities at prices lower than the then-current exercise price for the warrants. As a result of these provisions, the exercise price of the warrants that we issued in December 2013 and in August 2014 will be subject to adjustment in connection with this offering. These provisions could result in substantial dilution to investors in our common stock.

The interest rates of the Convertible Notes can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The interest rates of the Convertible Notes can fluctuate in certain circumstances, including in the event of a default of our obligations under the indentures governing the Convertible Notes or the registration rights agreements, if any, entered into in connection with such notes. In addition, the interest on the 2017 Notes will be payable 50% in cash and 50% in kind if (i) no event of default has occurred and is continuing under the indentures governing the 2017 Notes and (ii) the last reported sales price of our common stock on the 10th trading day immediately preceding the relevant interest payment date is more than \$1.10 per share. As the Company may be required to pay a portion of the interest

on the 2017 Notes in kind, by either increasing the principal amount of the outstanding 2017 Notes or issuing additional 2017 Notes, any increase to the interest rate applicable to the 2017 Notes could result in additional dilution to investors in our common stock.

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We may not have the ability to pay interest on the Convertible Notes or to repurchase or redeem the Convertible Notes.

If a fundamental change (as defined in the indentures governing the Convertible Notes) occurs, holders of the Convertible Notes may require us to repurchase, for cash, all or a portion of their Convertible Notes. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% plus accrued and unpaid interest, to, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes through, but not including, the maturity date of such notes. If we elect to redeem the Convertible Notes prior to their maturity, the redemption price of any Convertible Notes redeemed by us will be paid for in cash. Our ability to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes, to refinance our indebtedness and to fund working capital needs and planned capital expenditures depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to pay the interest on the Convertible Notes, to repurchase or redeem the Convertible Notes or to pay any cash amounts that may become due upon conversion of the Convertible Notes, or that our cash needs will not increase. In addition, any such repurchase or redemption of the Convertible Notes, even if such action would be in our best interests, may result in a default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, unless we are able to obtain the applicable lender s consent prior to the taking of such action.

Our failure to repurchase tendered Convertible Notes at a time when the repurchase is required by the indenture governing such notes would constitute a default under such notes and would permit holders of such notes to accelerate our obligations under such notes. Such default may also lead to a default under the agreements governing any of our current and future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay such indebtedness and repurchase the Convertible Notes or make cash payments upon conversions thereof.

If we are unable to generate sufficient cash flow from operations in the future to service our indebtedness and meet our other needs, we may have to refinance all or a portion of our indebtedness, obtain additional funds through public or private debt or equity financings, reduce expenditures or sell assets that we deem necessary to our business. Our ability to take some or all of these actions will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, and we cannot assure you that any of these measures would be possible or that any additional financing could be obtained on favorable terms, or at all. The inability to obtain additional financing on commercially reasonable terms could have a material adverse effect on our financial condition, which could cause the value of your investment to decline. Additionally, if we were to conduct a public or private offering of securities, any new offering would be likely to dilute our stockholders equity ownership.

The issuance of share-based payment awards under our stock incentive plan may cause dilution to our existing stockholders and may affect the market price of our common stock.

We have used, and in the future we may continue to use, stock options, stock grants and other equity-based incentives, either pursuant to the 2010 Plan, or outside of the 2010 Plan, to provide motivation and compensation to our directors, officers, employees and key independent consultants. The award of any such incentives will result in an immediate and potentially substantial dilution to our existing shareholders and could result in a decline in the value of our stock price.

As of September 30, 2014, there were 3,741,150 shares subject to outstanding options that are or will become eligible for sale in the public market to the extent permitted by any applicable vesting requirements and Rules 144 and 701 under the Securities Act. The exercise of these options and the sale of the underlying shares of common stock and the sale of stock issued pursuant to stock grants may have an adverse effect upon the price of our common stock, which in turn may have an adverse effect upon the trading price of the warrants.

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As of September 30, 2014, there were 1,813,986 shares of common stock available for future grant under our 2010 Plan and 1,160,606 shares of common stock reserved for issuance under our Employee Stock Purchase Plan. These shares can be freely sold in the public market upon issuance and once vested.

We may pay vendors in stock as consideration for their services; this may result in additional costs and may cause dilution to our existing stockholders.

In order for us to preserve our cash resources, we may in the future pay vendors, including technology partners, in shares, warrants or options to purchase shares of our common stock rather than cash. Payments for services in stock may materially and adversely affect our stockholders by diluting the value of outstanding shares of our common stock. In addition, in situations where we agree to register the shares issued to a vendor, this will generally cause us to incur additional expenses associated with such registration.

Significant holders or beneficial holders of our common stock may not be permitted to exercise warrants that they hold.

The warrant agreements governing the warrants being offered hereby will prohibit a holder from exercising its warrants if doing so would result in such holder beneficially owning more than 19.999% of our common stock or any other Class. Furthermore, during any period in which a holder beneficially owns less than 10% of our common stock or any other Class, the warrant agreements will limit the ability of such holder to exercise its warrants if doing so would result in such holder beneficially owning more than 9.999% of our common stock or any other Class. Also, during any period in which a holder beneficially owns less than 5% of our common stock or any other Class, the warrant agreements will limit the ability of such holder to exercise its warrants if doing so would result in such holder beneficially owning more than 4.999% of our common stock or any other Class. As a result, you may not be able to exercise your warrants for shares of our common stock at a time when it would be financially beneficial for you to do so. In such circumstance, you could seek to sell your warrants to realize value but you may be unable to do so.

There is no public market for the warrants to purchase common stock being offered in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until you acquire shares of our common stock upon exercise of your warrants, you will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of your warrants, you will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

The exercise price for the warrants will not be adjusted for all dilutive events.

The exercise price for the warrants is subject to adjustment for certain events, including the issuance of stock dividends on our common stock and, in certain instances, the issuance of our common stock at a price per share less than the exercise price of the warrants. However, the exercise price will not be adjusted for other events, including the issuance of certain rights, options or warrants, distributions of capital stock, indebtedness, or assets and cash dividends. Accordingly, an event that adversely affects the value of the warrants may occur, and that event may not result in an adjustment to the exercise price.

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We may not be permitted by the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, to repurchase the warrants, and we may not have the ability to do so.

Under certain circumstances, if an extraordinary transaction (as defined in the warrants) occurs, holders of the warrants may require us to repurchase, for cash, the remaining unexercised portion of such warrants for an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model and the terms of the warrants. Our ability to repurchase the warrants depends on our ability to generate cash flow in the future. To some extent, this is subject to general economic, financial, competitive, legislative and regulatory factors and other factors that are beyond our control. We cannot assure you that we will maintain sufficient cash reserves or that our business will generate cash flow from operations at levels sufficient to permit us to repurchase the warrants. In addition, any such repurchase of the warrants may result in a default under the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, unless we are able to obtain such lender s consent prior to the taking of such action. If we were unable to obtain such consent, compliance with the terms of the warrants would trigger an event of default under such agreements.

Concentration of ownership among our affiliates may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

Our affiliates who held our common stock as of September 30, 2014 together control approximately 16.5% of our outstanding common stock, with a single stockholder, Khosla Ventures I, L.P. and its affiliates, controlling approximately 9.5% of our outstanding common stock, not taking into account shares of common stock and warrants sold in this offering. If our affiliates or a group of our affiliates act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, our affiliates, acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of the Company otherwise favored by our other stockholders and holders of warrants. This concentration of ownership could depress our stock price, which would in turn depress the trading price of the common stock and warrants.

We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment.

Under the terms of the agreements governing our indebtedness with TriplePoint, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if the following conditions are satisfied: (i) the Retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to \$10.0 million, and (iii) no event of default has occurred and is continuing under the agreement. Agri-Energy is also permitted to make dividends and distributions to Gevo, Inc. for certain defined purposes related to the Convertible Notes. Accordingly, even if we decide to pay cash dividends in the future, we may not be able to access cash generated by Agri-Energy if amounts are then outstanding pursuant to such agreements.

We have never paid cash dividends on our common stock and we do not expect to pay cash dividends on our common stock at any time in the foreseeable future because such payments are prohibited by the terms of the agreements governing our indebtedness with Whitebox. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock.

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If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline. The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business.

We do not have any control over these analysts. If one or more of the analysts who cover us downgrade our stock or change their opinion of our stock, our stock price would likely decline which in turn would likely cause a decline in the value of the warrants and the Convertible Notes. If one or more of these analysts cease coverage of the Company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our stock price and the price of the warrants and Convertible Notes to decline or the trading volume of such securities to decline.

We are subject to anti-takeover provisions in our amended and restated certificate of incorporation, as amended (our Certificate of Incorporation), and amended and restated bylaws and under Delaware law, that could delay or prevent an acquisition of the Company, even if the acquisition would be beneficial to our stockholders.

Provisions in our Certificate of Incorporation and our amended and restated bylaws may delay or prevent an acquisition of us. Among other things, our Certificate of Incorporation and amended and restated bylaws provide for a board of directors that is divided into three classes with staggered three-year terms, provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and further provide that only our board of directors may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law, which prohibits, with some exceptions, stockholders owning in excess of 15% of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advance notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire the Company may be considered beneficial by some stockholders.

Our common stock may be delisted from the NASDAQ Capital Market, which could affect its market price and liquidity.

We are required to continually meet the listing requirements of the NASDAQ Capital Market (including a minimum bid price for our common stock of \$1.00 per share) to maintain the listing of our common stock on the NASDAQ Capital Market.

Prior to January 5, 2015, our common stock was listed on the NASDAQ Global Market. On June 30, 2014, we received a deficiency letter from the Listing Qualifications Department of the NASDAQ Stock Market, notifying us that, for the prior 30 consecutive business days, the closing bid price of our common stock was not maintained at the minimum required closing bid price of at least \$1.00 per share as required for continued listing on the NASDAQ Global Market. In accordance with NASDAQ Listing Rules, we had an initial compliance period of 180 calendar days, or until December 29, 2014, to regain compliance with this requirement. If at any time before December 29, 2014, the bid price of our common stock had closed at or above \$1.00 per share for a minimum of 10 consecutive business days, NASDAQ would have provided written notification that we had regained compliance. We were not able to maintain the minimum closing bid price by December 29, 2014 and, as a result, we voluntarily applied to transfer the listing of our common stock from the NASDAQ Global Market to the NASDAQ Capital Market. In connection with the transfer to the NASDAQ Capital Market, which became effective on January 5, 2015, we were

granted an additional 180 days, or until June 29, 2015, to regain compliance by maintaining a minimum closing bid price of at least \$1.00 for ten consecutive business days. If we do not regain compliance with the minimum closing bid price requirement during this second 180-day

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compliance period, NASDAQ will provide written notice that our securities are subject to delisting. At such time, we would be entitled to appeal the delisting determination to a NASDAQ Listing Qualifications Panel. We cannot provide any assurance that our stock price will recover within the permitted grace period. If our common stock is delisted, it could be more difficult to buy or sell our common stock and to obtain accurate quotations, and the price of our stock could suffer a material decline. Delisting may also impair our ability to raise capital.

Furthermore, it would be a fundamental change under the indentures governing the Convertible Notes if our common stock is not listed on a national securities exchange. In such circumstance we would be required to offer to repurchase the Convertible Notes at 100% plus accrued and unpaid interest through, but not including, the repurchase date. We would also be required to pay the holders of the 2017 Notes a fundamental change make-whole payment equal to the aggregate amount of interest that would have otherwise been payable on such notes, to, but not including, the maturity date of such notes. Repurchase offers for the 2022 Notes would be prohibited by the agreements governing our secured indebtedness with TriplePoint.

Certain Risks Related to our Business and Strategy

Our auditors have expressed substantial doubt about our ability to continue as a going concern, which may hinder our ability to obtain further financing.

Our audited financial statements for the year ended December 31, 2013, were prepared under the assumption that we would continue our operations as a going concern. Our independent registered public accounting firm has included a going concern explanatory paragraph in its report on our financial statements for the year ended December 31, 2013, indicating that the amount of working capital at December 31, 2013 was not sufficient to meet the cash requirements to fund planned operations through December 31, 2014 without additional sources of cash, which raises substantial doubt about our ability to continue as a going concern. Uncertainty concerning our ability to continue as a going concern may hinder our ability to obtain future financing. Continued operations and our ability to continue as a going concern are dependent on our ability to obtain additional funding in the near future and thereafter, and there are no assurances that such funding will be available to us at all or will be available in sufficient amounts or on reasonable terms. Our financial statements do not include any adjustments that may result from the outcome of this uncertainty. Without additional funds from private and/or public offerings of debt or equity securities, sales of assets, sales or outlicenses of intellectual property or technologies, or other transactions, we will exhaust our resources and will be unable to continue operations. If we cannot continue as a viable entity, our stockholders would likely lose most or all of their investment in us.

We have a history of net losses, and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including losses of \$0.9 million, \$30.1 million, \$66.8 million, \$60.7 million and \$48.2 million during the three and nine months ended September 30, 2014 and the years ended December 31, 2013, 2012 and 2011, respectively. As of September 30, 2014, we had an accumulated deficit of \$292.2 million. We expect to incur losses and negative cash flow from operating activities for the foreseeable future. Prior to September 2010, our revenues were primarily derived from government grants and cooperative agreements. From the completion of our acquisition of Agri-Energy in September 2010 until the commencement of our initial startup operations for isobutanol production in May 2012, we had also generated revenue from the sale of ethanol and related products. We currently derive revenue from the sale of ethanol and related products during periods in which the production of isobutanol is temporarily paused and our management decides, based on the then-current economic conditions for the production and sale of ethanol, that the Agri-Energy Facility will be temporarily reverted to ethanol production, or the simultaneous production of both ethanol and isobutanol. Additionally, we have generated limited revenue from the sale of products such as ATJ fuel produced from isobutanol that has been used for engine

qualification and flight demonstration by the U.S. Air Force and other branches of the U.S. military. If our existing grants and cooperative agreements are canceled prior to the expected end dates or we are unable to obtain new grants and cooperative agreements or our ATJ supply contracts are canceled or we are unable to produce suitable ATJ material, our revenues could be adversely affected.

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Furthermore, we expect to spend significant amounts on the further development and commercial implementation of our technology. We also expect to spend significant amounts acquiring and deploying additional equipment to attain final product specifications that may be required by future customers, acquiring or otherwise gaining access to additional ethanol plants and Retrofitting them for isobutanol production, on marketing, general and administrative expenses associated with our planned growth and on management of operations as a public company. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending ourselves against claims by others that we may be violating their intellectual property rights may be significant.

In particular, over time, the costs of our litigation with Butamax have been and are expected to continue to be significant. Furthermore, over time, costs related to defending the validity of our issued patents and challenging the validity of the patents of others at the U.S. Patent and Trademark Office (USPTO) have also been and may continue to be significant. As a result, even if our revenues increase substantially, we expect that our expenses will exceed revenues for the foreseeable future. We do not expect to achieve profitability during the foreseeable future, and may never achieve it. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis.

We will require substantial additional financing to achieve our goals, and a failure to obtain this capital when needed or on acceptable terms could force us to delay, limit, reduce or terminate our development and commercialization efforts.

Significant portions of our resources have been dedicated to research and development, as well as demonstrating the effectiveness of our technology, including through the Retrofit of the Agri-Energy Facility. We believe that we will continue to expend substantial resources for the foreseeable future on further developing our technologies, developing future markets for our isobutanol and accessing and Retrofitting facilities necessary for the production of isobutanol on a commercial scale. These expenditures will include costs associated with research and development, accessing existing ethanol plants, Retrofitting or otherwise modifying the plants to produce isobutanol, obtaining government and regulatory approvals, acquiring or constructing storage facilities and negotiating supply agreements for the isobutanol we produce. In addition, other unanticipated costs may arise. Because the costs of developing our technology at a commercial scale are highly uncertain, we cannot reasonably estimate the amounts necessary to successfully commercialize our production.

To date, we have funded our operations primarily through equity offerings, issuances of debt, borrowing under our secured debt financing arrangements and revenues earned primarily from the sale of ethanol. Based on our current plans and expectations, we will require additional funding to achieve our goals. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending against claims by others that we may be violating their intellectual property rights, including the current litigation with Butamax, will continue to be significant. Moreover, our plans and expectations may change as a result of factors currently unknown to us, and we may need additional funds sooner than planned and may seek to raise additional funds through public or private debt or equity financings in the near future. We may also choose to seek additional capital sooner than required due to favorable market conditions or strategic considerations.

Our future capital requirements will depend on many factors, including:

the timing of, and costs involved in developing and optimizing our technologies for full-scale commercial production of isobutanol;

the timing of, and costs involved in accessing existing ethanol plants;

the timing of, and costs involved in Retrofitting the plants we access with our technologies;

the costs involved in establishing enhanced yeast seed trains;

the costs involved in acquiring and deploying additional equipment to attain final product specifications that may be required by future customers;

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the cost of operating, maintaining and increasing production capacity of the Retrofitted plants;

our ability to negotiate agreements supplying suitable biomass to our plants, and the timing and terms of those agreements;

the timing of, and the costs involved in developing adequate storage facilities for the isobutanol we produce;

our ability to gain market acceptance for isobutanol as a specialty chemical, gasoline blendstock and as a raw material for the production of hydrocarbons;

our ability to negotiate supply agreements for the isobutanol we produce, and the timing and terms of those agreements, including terms related to sales price;

our ability to negotiate sales of our isobutanol for full-scale production of butenes and other industrially useful chemicals and fuels, and the timing and terms of those sales, including terms related to sales price;

our ability to sell the iDGs left as a co-product of fermenting isobutanol from corn as animal feedstock;

our ability to establish and maintain strategic partnerships, licensing or other arrangements and the timing and terms of those arrangements; and

the cost of preparing, filing, prosecuting, maintaining, defending and enforcing patent, trademark and other intellectual property claims, including litigation costs and the outcome of such litigation.

Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If needed funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate:

our research and development activities;

our plans to access and/or Retrofit existing ethanol facilities;

our production of isobutanol at Retrofitted plants; and/or

our activities in developing storage capacity and negotiating supply agreements that may be necessary for the commercialization of our isobutanol production.

Our ability to compete may be adversely affected if we are unsuccessful in defending against any claims by competitors or others that we are infringing upon their intellectual property rights, such as if Butamax is successful in its lawsuits alleging that we are infringing its patents for the production of isobutanol using certain microbial host cells.

The various bioindustrial markets in which we plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property-dependent industries, including the renewable energy industry, have employed intellectual property litigation as a means to gain an advantage over their competitors. As a result, we may be required to defend against claims of intellectual property infringement that may be asserted by our competitors against us and, if the outcome of any such litigation is adverse to us, it may affect our ability to compete effectively. Currently, we are defending against lawsuits filed by Butamax alleging that we have infringed eight patents, including five patents claiming certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells, a patent claiming a modified *Pseudomonas* KARI enzyme, a patent claiming a modified *E. coli* KARI enzyme, and a patent claiming the use of *L. lactis* and *S. mutans*-related dihydroxy acid dehydratase enzymes in yeast. The litigation with Butamax is dynamic and while the District Court has temporarily stayed the litigation with Butamax involving certain patents, trials related to other patents were recently scheduled for August 2015 and April 2016. We expect to incur significant costs preparing for and participating in these upcoming trials. However, if we are unable to raise the significant funds that will be required to continue to defend our freedom to operate, we could be forced to change our business strategy.

Our involvement in litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the U.S. may divert management time from focusing on business operations, could cause us to spend significant amounts of money and may have no guarantee of success. Any current and future intellectual property litigation could also force us to do one or more of the following:

stop selling, incorporating, manufacturing or using our products that use the subject intellectual property;

obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all;

redesign those products or processes, such as our process for producing isobutanol, that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible;

pay attorneys fees and expenses; or

pay damages, including the possibility of treble damages in a patent case if a court finds us to have willfully infringed certain intellectual property rights.

We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties, including, but not limited to Butamax. We cannot assure you that we will ultimately prevail if any of this third-party intellectual property is asserted against us or that we will ultimately prevail in the patent infringement litigation with Butamax.

Our Retrofit of the Agri-Energy Facility is our first commercial Retrofit and, as a result, our full-scale commercial production of isobutanol at the Agri-Energy Facility could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In September 2010, we acquired ownership of the Agri-Energy Facility in Luverne, Minnesota. To date, we have successfully demonstrated fermentation operations at commercial scale combined with the use of our GIFT® separation system using corn mash feedstock at the Agri-Energy Facility. We may incur additional costs in order to further optimize the production of both isobutanol and ethanol simultaneously at the Agri-Energy Facility. Such funds may not be available when we need them on terms that are acceptable to us, or at all. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If additional funding is not available to us, or not available on terms acceptable to us, our ability to optimize the isobutanol production technology currently in place at the Agri-Energy Facility and achieve full-scale commercial production at this facility may be limited. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

The Agri-Energy Facility is our first commercial isobutanol production facility, and, as such, we may be unable to produce planned quantities of isobutanol and any such production may be more costly than we anticipate.

Since commencing initial startup operations for the production of isobutanol at the Agri-Energy Facility in May 2012, we have encountered some production challenges, including contamination issues, which have resulted in lower than planned isobutanol production. While we have resumed limited production of isobutanol at the Agri-Energy Facility, this is our first commercial isobutanol production facility and we may encounter further production challenges, including, but not limited to, being unable to manage plant contamination, and we may need to add additional processing steps or incur additional capital expenditures to achieve our target customers product specifications. Any such production challenges may delay our ramp up of production capacity, prevent us from producing significant quantities of isobutanol, significantly increase our cost to produce isobutanol, or cause us to temporarily switch to producing ethanol or produce both products simultaneously, which could have a material adverse effect on our business, financial condition and results of operations.

Some of our Retrofits, including the Retrofit of the Agri-Energy Facility, may include additional equipment that we believe will allow us to switch between ethanol and isobutanol production, or produce both products simultaneously, but we cannot guarantee that we will be successful in switching between isobutanol and ethanol production, or producing both products simultaneously, in a timely or efficient manner at these facilities.

In July 2014, we began more consistent co-production of isobutanol and ethanol at the Agri-Energy Facility, with one fermenter utilized for isobutanol production and three fermenters utilized for ethanol production. We believe that the capability to switch between ethanol and isobutanol production, or produce both products simultaneously (as evidenced by our Agri-Energy Facility) will, subject to regulatory factors and depending on market conditions, mitigate certain significant risks associated with startup operations for isobutanol production. However, there can be no assurance that we will be able to revert to ethanol production, or produce both products simultaneously at future plants, or that it will make sense, based on the then-current economic conditions for the production of ethanol, to do so. Even if we are able to revert to ethanol production, or produce both products simultaneously at certain facilities, those facilities may produce ethanol less efficiently or in lower volumes than they did prior to the Retrofit and such ethanol production may not generate positive economic returns. If we are unable to produce isobutanol at the volumes, rates and costs that we expect and are unable to revert to ethanol production at full capacity, or produce both products simultaneously, we would be unable to match the facility s historical economic performance and our business, financial condition and results of operations would be materially adversely affected.

Fluctuations in the price of corn and other feedstocks may affect our cost structure.

Our approach to the biofuels and chemicals markets will be dependent on the price of corn and other feedstocks that will be used to produce ethanol and isobutanol. A decrease in the availability of plant feedstocks or an increase in the price may have a material adverse effect on our financial condition and operating results. At certain levels, prices may make these products uneconomical to use and produce, as we may be unable to pass the full amount of feedstock cost increases on to our customers.

The price and availability of corn and other plant feedstocks may be influenced by general economic, market and regulatory factors. These factors include weather conditions, farming decisions, government policies and subsidies with respect to agriculture and international trade, and global demand and supply. For example, corn prices may increase significantly in response to drought conditions in the Midwestern region of the U.S. and any concerns that a resulting decrease in the supply of corn could lead to the restriction of corn supplies, which in turn could cause further increases in the price of corn. The significance and relative impact of these factors on the price of plant feedstocks is difficult to predict, especially without knowing what types of plant feedstock materials we may need to use.

Fluctuations in the price and availability of natural gas may harm our performance.

The ethanol facilities that we have Retrofitted or plan to Retrofit to produce isobutanol, use significant amounts of natural gas to produce ethanol. After Retrofit with our GIFT® technology, these facilities will continue to require natural gas to produce isobutanol and/or ethanol. Accordingly, our business is dependent upon natural gas supplied by third parties. The prices for and availability of natural gas are subject to volatile market conditions. These market conditions are affected by factors beyond our control, such as weather conditions, overall economic conditions and governmental regulations. Should the price of natural gas increase, our performance could suffer. Likewise, disruptions in the supply of natural gas could have a material impact on our business and results of operations.

Fluctuations in petroleum prices and customer demand patterns may reduce demand for biofuels and bio-based chemicals.

We anticipate marketing our biofuel as an alternative to petroleum-based fuels. Therefore, if the price of oil falls, any revenues that we generate from biofuel products could decline, and we may be unable to produce products that are a commercially viable alternative to petroleum-based fuels. Additionally, demand for liquid

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transportation fuels, including biofuels, may decrease due to economic conditions or otherwise. We will encounter similar risks in the chemicals industry, where declines in the price of oil may make petroleum-based hydrocarbons less expensive, which could reduce the competitiveness of our bio-based alternatives.

Changes in the prices of distiller s grains and iDGs could have a material adverse effect on our financial condition.

We sell distiller s grains as a co-product from the production of ethanol at the Agri-Energy during any period in which the production of isobutanol is temporarily paused and our management decides, based on the then-current economic conditions for the production of ethanol, that the Agri-Energy Facility will be temporarily reverted to ethanol production, or produce both products simultaneously. We may also sell distiller s grains produced by other ethanol facilities that we acquire, enter into a joint venture or tolling arrangement with, or license to in the future. We also plan to sell the iDGs that will be produced as a co-product of our commercial isobutanol production. Distiller s grains and iDGs compete with other animal feed products, and decreases in the prices of these other products could decrease the demand for and price of distiller s grains and iDGs . Additionally, we have not yet produced commercial iDGs and, as such, there is a risk that our iDGs may not meet market requirements. If the price of distiller s grains and iDGs decreases or our iDGs do not meet market requirements, our revenue from the sale of distiller s grains and future revenue from the sale of iDGs could suffer, which could have a material adverse effect on our financial condition.

To the extent that we produce ethanol at accessed plants before commencing isobutanol production, or during periods in which we make the strategic decision to revert to ethanol production, or produce both products simultaneously, we will be vulnerable to fluctuations in the price of and cost to produce ethanol.

We believe that, like the Agri-Energy Facility, the other ethanol production facilities we access can continue to produce ethanol during most of the Retrofit process. In certain cases, we expect to obtain income from this ethanol production. Further, we have designed our isobutanol production technology (including the Retrofit of the Agri-Energy Facility) to allow us to revert to ethanol production at certain facilities, or produce both products simultaneously, when the economic conditions for ethanol production make such production desirable. Our earnings from ethanol revenue will be dependent on the price of, demand for and cost to produce ethanol. Decreases in the price of ethanol, whether caused by decreases in gasoline prices, changes in regulations, seasonal fluctuations or otherwise, will reduce our revenues, while increases in the cost of production will reduce our margins. To the extent that ethanol production costs increase or price decreases, earnings from ethanol production could suffer, which could have a material adverse effect on our business.

In recent years, the spread between ethanol and corn prices has fluctuated widely and narrowed significantly. Fluctuations are likely to continue to occur. Unfavorable weather conditions led to a smaller than expected corn harvest across affected areas of the U.S. Midwest region in the fall of 2012. This, along with smaller corn carryover in the last two crop years and higher export demand for corn led to higher corn prices during 2012 and the first half of 2013 and increased corn price volatility. The price of ethanol during that time did not keep pace with rising corn prices which resulted in lower and, in some instances negative, operating margins in the ethanol industry. As a result, during the fourth quarter of 2012, our management determined that the production of ethanol at the Agri-Energy Facility would not produce a positive margin versus maintaining the Agri-Energy Facility at idle. Likewise, the recent decline in oil prices has translated into lower gasoline prices in the U.S., which have resulted in lower ethanol prices and ethanol profit margins. It is unclear when or if ethanol prices may rebound, and consequently, when or if near-term ethanol margins will increase from current levels. Our inability to rely on ethanol production as an alternative revenue source due to rising corn prices or otherwise could have a material adverse effect on our business, financial condition and results of operations.

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Sustained narrow commodity margins may cause us to operate at a loss or to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility, and we may or may not be able to recommence production when margins improve.

Our results from operations will be substantially dependent on commodity prices. Many of the risks associated with volatile commodity prices, including fluctuations in feedstock costs and natural gas costs, apply both to the production of ethanol and isobutanol. Sustained narrow commodity prices may cause our combined revenues from sales of ethanol, isobutanol and related co-products to decline below our marginal cost of production. As market conditions change, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Agri-Energy Facility.

The decision to reduce or suspend production at a facility may create additional costs related to continued maintenance, termination of staff, certain unavoidable fixed costs, termination of customer contracts and increased costs to increase or recommence production in the future. These costs may make it difficult or impractical to increase or recommence production of ethanol and/or isobutanol at the Agri-Energy Facility even if margins improve. In addition, any reduction or suspension of the production of ethanol and/or isobutanol at the Agri-Energy Facility may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

We may not be successful in the development of individual steps in, or an integrated process for, the production of commercial quantities of isobutanol from plant feedstocks in a timely or economic manner, or at all.

As of the date of this prospectus supplement, we have produced only limited quantities of isobutanol at commercial scale and we may not be successful in increasing our production from these limited startup production levels to nameplate production levels. The production of isobutanol requires multiple integrated steps, including:

obtaining the plant feedstocks;

treatment with enzymes to produce fermentable sugars;

fermentation by organisms to produce isobutanol from the fermentable sugars;

distillation of the isobutanol to concentrate and separate it from other materials;

purification of the isobutanol; and

storage and distribution of the isobutanol.

Our future success depends on our ability to produce commercial quantities of isobutanol in a timely and economic manner. Our biocatalysts have not yet produced commercial volumes of isobutanol at nameplate production levels. While we have produced isobutanol using our biocatalysts at our laboratories in Colorado, at the one MGPY demonstration facility and at the Agri-Energy Facility, such production was not at full nameplate capacity. Our

production since the fourth quarter of 2013 has utilized a corn mash feedstock, but risk still exists for achieving nameplate capacity at this facility. The risk of contamination and other problems rise as we increase the scale of our isobutanol production. If we are unable to successfully manage these risks, we may encounter difficulties in achieving our target isobutanol production yield, rate, concentration or purity at a commercial scale, which could delay or increase the costs involved in commercializing our isobutanol production. In addition, we have limited experience sourcing large quantities of feedstocks and in storing and/or distributing significant volumes of isobutanol. The technological and logistical challenges associated with each of the processes involved in production, sale and distribution of isobutanol are extraordinary, and we may not be able to resolve any difficulties that arise in a timely or cost effective manner, or at all. Even if we are successful in developing an economical process for converting plant feedstocks into commercial quantities of isobutanol, we may not be able to adapt such process to other biomass raw materials, including cellulosic biomass.

Prior to commencement of the Agri-Energy Facility Retrofit, neither we nor ICM had ever built (through Retrofit or otherwise) or operated a commercial isobutanol facility. We assume that we understand how the

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engineering and process characteristics of the one MGPY demonstration facility will scale up to larger facilities, but these assumptions may prove to be incorrect. Accordingly, we cannot be certain that we can consistently produce isobutanol in an economical manner in commercial quantities. If our costs to build large-scale commercial isobutanol facilities are significantly higher than we expect or if we fail to consistently produce isobutanol economically on a commercial scale or in commercial volumes, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We have entered into a joint venture with Redfield Energy, LLC to Retrofit the Redfield Facility (as defined below), and our production of isobutanol at the Redfield Facility could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In June 2011, we acquired access to a 50 MGPY ethanol production facility located near Redfield, South Dakota (the Redfield Facility), pursuant to our joint venture with Redfield Energy, LLC, a South Dakota limited liability company (Redfield). We intend to Retrofit this facility to produce isobutanol, and will need access to additional capital in order to commence the Retrofit. Although we will be able to apply our experience from the Retrofit of the Agri-Energy Facility, no two ethanol facilities are exactly alike, and each Retrofit will require individualized engineering and design work. Cost overruns or other unexpected difficulties unique to the Redfield Facility could cause the Retrofit to cost more than we anticipate which could further increase our need for funding. Such funds may not be available when we need them, on terms that are acceptable to us or at all, which could delay our full-scale commercial production of isobutanol at this facility. In addition, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint. If additional funding is not available to us, or not available on terms acceptable to us, our ability to complete the Retrofit of the Redfield Facility, which is not yet underway, or acquire access to or Retrofit additional ethanol plants may be limited. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

We may not be able to successfully identify and acquire access to additional ethanol production facilities suitable for efficient Retrofitting, or acquire access to sufficient capacity to be commercially viable or meet customer demand.

Our strategy currently includes accessing and Retrofitting, either independently or with potential development partners or licensees, existing ethanol facilities for the production of large quantities of isobutanol for commercial distribution and sale. In addition to the Agri-Energy Facility, we have acquired access to the 50 MGPY Redfield Facility pursuant to our joint venture with Redfield. However, we may not find future development partners with whom we can implement this growth strategy, and we may not be able to identify facilities suitable for joint venture, acquisition, lease or license.

Even if we successfully identify a facility suitable for efficient Retrofitting, we may not be able to acquire access to such facility in a timely manner, if at all. The owners of the ethanol facility may reach an agreement with another party, refuse to consider a joint venture, acquisition, lease or license, or demand more or different consideration than we are willing to provide. In particular, if the profitability of ethanol production increases, plant owners may be less likely to consider modifying their production, and thus may be less willing to negotiate with us or agree to allow us to Retrofit their facilities for isobutanol production. We may also find that it is necessary to offer special terms, incentives and/or rebates to owners of ethanol facilities that allow us to access and Retrofit their facilities while our production technology is being proven on a commercial scale. Even if the owners of a facility are interested in reaching an agreement that grants us access to the plant, negotiations may take longer or cost more than we expect, and we may never achieve a final agreement. Further, our ability to raise additional funds will be subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or

TriplePoint, and we may not be able to raise capital on acceptable terms, or at all, to finance our joint venture, acquisition, participation or lease of facilities.

Even if we are able to access and Retrofit several facilities, we may fail to access enough capacity to be commercially viable or meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to

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monetary damages. Failure to acquire access to sufficient capacity in a timely manner and on favorable terms may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

Once we acquire access to ethanol facilities, we may be unable to successfully Retrofit them to produce isobutanol, or we may not be able to Retrofit them in a timely and cost-effective manner.

For each ethanol production facility to which we acquire access, we will be required to obtain numerous regulatory approvals and permits to Retrofit and operate the facility. In the U.S., these include such items as a modification to the air permit, fuel registration with the EPA, ethanol excise tax registration and others. These requirements may not be satisfied in a timely manner, or at all. Later-enacted federal and state governmental requirements may also substantially increase our costs or delay or prevent the completion of a Retrofit, which could have a material adverse effect on our business, financial condition and results of operations.

No two ethanol facilities are exactly alike, and each Retrofit will require individualized engineering and design work. There is no guarantee that we or any contractor we retain will be able to successfully design a commercially viable Retrofit, or properly complete the Retrofit once the engineering plans are completed. Prior to commencement of the Agri-Energy Facility Retrofit, neither we nor ICM had ever built, via Retrofit or otherwise, a full-scale commercial isobutanol facility. Despite our experience with the Retrofit of the Agri-Energy Facility, our estimates of the capital costs that we will need to incur to Retrofit a commercial-scale ethanol facility may prove to be inaccurate, and each Retrofit may cost materially more to engineer and build than we currently anticipate. For example, our estimates assume that each plant we Retrofit will be performing at full production capacity, and we may need to expend substantial sums to repair or modify underperforming facilities prior to Retrofit.

Our Retrofit design to convert existing ethanol production capacity to isobutanol production capacity was developed in cooperation with ICM and is based on ICM technology. There is no guarantee that this Retrofit design will be compatible with existing ethanol facilities that do not utilize ICM technology. Before we can Retrofit such facilities, we may need to modify them to be compatible with our Retrofit design. This may require significant additional expenditure of time and money, and there is no guarantee such modification will be successful.

Furthermore, the Retrofit of acquired facilities will be subject to the risks inherent in the build-out of any manufacturing facility, including risks of delays and cost overruns as a result of factors that may be out of our control, such as delays in the delivery of equipment and subsystems or the failure of such equipment to perform as expected once delivered. In addition, we will depend on third-party relationships in expanding our isobutanol production capacity and such third parties may not fulfill their obligations to us under our arrangements with them. Delays, cost overruns or failures in the Retrofit process will slow our commercial production of isobutanol and harm our performance.

Though our Retrofit design for certain facilities will include the capability to switch between isobutanol and ethanol production, or produce both products simultaneously (as demonstrated by our Agri-Energy Facility), we may be unable to successfully revert to ethanol production, or produce both products simultaneously at certain facilities, or such facilities may produce ethanol less efficiently or in lower volumes than they did before the Retrofit. In addition, we may be unable to secure the necessary regulatory approvals and permits to switch between isobutanol and ethanol production, or produce both products simultaneously, in a timely manner, or at all. Thus, if we fail to achieve commercial levels of isobutanol production at a Retrofitted facility, we may be unable to rely on ethanol production as an alternative or additional revenue source, which could have a material adverse effect on our prospects.

Our facilities and process may fail to produce isobutanol at the volumes, rates and costs we expect.

Some or all of the facilities we choose to Retrofit may be in locations distant from corn or other feedstock sources, which could increase our feedstock costs or prevent us from acquiring sufficient feedstock volumes for commercial production. General market conditions might also cause increases in feedstock prices, which could likewise increase our production costs.

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Even if we secure access to sufficient volumes of feedstock, the facilities we Retrofit for isobutanol production may fail to perform as expected. The equipment and subsystems installed during the Retrofit may never operate as planned. Our systems may prove incompatible with the original facility, or require additional modification after installation. Our biocatalyst may perform less efficiently than it did in testing, if at all. Contamination of plant equipment may require us to replace our biocatalyst more often than expected, require unplanned installation or replacement of equipment, or cause our fermentation process to yield undesired or harmful by-products. Likewise, our feedstock may contain contaminants like wild yeast, which naturally ferments feedstock into ethanol. The presence of contaminants, such as wild yeast, in our feedstock could reduce the purity of the isobutanol that we produce and require us to invest in more costly isobutanol separation processes or equipment. Unexpected problems may force us to cease or delay production and the time and costs involved with such delays may prove prohibitive. Any or all of these risks could prevent us from achieving the production throughput and yields necessary to achieve our target annualized production run rates and/or to meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. Failure to achieve these rates or meet these minimum requirements, or achieving them only after significant additional expenditures, could substantially harm our commercial performance.

We may be unable to produce isobutanol in accordance with customer specifications.

Even if we produce isobutanol at our targeted rates, we may be unable to produce isobutanol that meets customer specifications, including those defined in ASTM D7862 Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel. We may need to add additional processing steps or incur capital expenditures in order to meet customer specifications which could add significant costs to our production process. For example, at the Agri-Energy Facility we intend to acquire and install a product purification column, which we believe will allow us to achieve our target customers product specifications without continuing to rely on third-party contract tolling providers. If we fail to meet specific product or volume specifications contained in a supply agreement, the customer may have the right to seek an alternate supply of isobutanol and/or terminate the agreement completely, and we could be required to pay shortfall fees or otherwise be subject to damages. A failure to successfully meet the specifications of our potential customers could decrease demand, and significantly hinder market adoption of our products.

We lack significant experience operating commercial-scale ethanol and isobutanol facilities, and may encounter substantial difficulties operating commercial plants or expanding our business.

We have very limited experience operating commercial-scale ethanol and isobutanol facilities. Accordingly, we may encounter significant difficulties operating at a commercial scale. We believe that our future facilities will, like the Agri-Energy Facility, be able to continue producing ethanol during much of the Retrofit process. We will need to successfully administer and manage this production. Though ICM and the employees of Agri-Energy and Redfield are experienced in the operation of ethanol facilities, and our future development partners or the entities that we acquire may likewise have such experience, we may be unable to manage ethanol-producing operations, especially given the possible complications associated with a simultaneous Retrofit. Once we complete a commercial Retrofit, operational difficulties may increase, because neither we nor anyone else has significant experience operating a pure isobutanol fermentation facility at a commercial scale. The skills and knowledge gained in operating commercial ethanol facilities or small-scale isobutanol plants may prove insufficient for successful operation of a large-scale isobutanol facility, and we may be required to expend significant time and money to develop our capabilities in isobutanol facility operation. We may also need to hire new employees or contract with third parties to help manage our operations, and our performance will suffer if we are unable to hire qualified parties or if they perform poorly.

We may face additional operational difficulties as we further expand our production capacity. Integrating new facilities with our existing operations may prove difficult. Rapid growth, resulting from our operation of, or other involvement with, isobutanol facilities or otherwise, may impose a significant burden on our administrative and operational resources. To effectively manage our growth and execute our expansion plans, we will need to

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expand our administrative and operational resources substantially and attract, train, manage and retain qualified management, technicians and other personnel. We may be unable to do so. Failure to meet the operational challenges of developing and managing increased production of isobutanol and/or ethanol, or failure to otherwise manage our growth, may have a material adverse effect on our business, financial condition and results of operations.

We may have difficulty adapting our technology to commercial-scale fermentation, which could delay or prevent our commercialization of isobutanol.

While we have demonstrated the ability to produce isobutanol under the demonstration plant operating conditions and under commercial scale operating conditions at the Agri-Energy Facility, and we have succeeded in reaching our commercial fermentation performance targets for isobutanol concentration, fermentation productivity and isobutanol yield in laboratory tests, we have not yet accomplished these performance targets in a commercial plant environment. Ultimately, our yeast biocatalyst may not be able to meet the commercial performance targets at nameplate production capacity in a timely manner, or ever. In addition, the risk of contamination and other problems may increase as we seek to ramp up our production capacity, which could negatively impact our cost of production. If we encounter difficulties in optimizing our production, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We may have difficulties gaining market acceptance and successfully marketing our isobutanol to customers, including chemical producers, fuel distributors and refiners.

A key component of our business strategy is to market our isobutanol to chemical producers, fuels distributors and refiners. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market our isobutanol to refiners, fuels distributors and chemical producers, our business, financial condition and results of operations will be materially adversely affected.

We also intend to market our isobutanol to chemical producers for use in making various chemicals such as isobutylene, a type of butene that can be produced through the dehydration of isobutanol. Although a significant market currently exists for isobutylene produced from petroleum, which is widely used in the production of plastics, specialty chemicals, alkylate for gasoline blending and high octane aviation gasoline, no one has successfully created isobutylene on a commercial scale from bio-isobutanol. Therefore, to gain market acceptance and successfully market our isobutanol to chemical producers, we must show that our isobutanol can be converted into isobutylene at a commercial scale. As no company currently dehydrates commercial volumes of isobutanol into isobutylene, we must demonstrate the large-scale feasibility of the process and reach agreements with companies that are willing to invest in the necessary dehydration infrastructure. Failure to reach favorable agreements with these companies, or the inability of their plants to convert isobutanol into isobutylene at sufficient scale, will slow our development in the chemicals market and could significantly affect our profitability.

Obtaining market acceptance in the chemicals industry is complicated by the fact that many potential chemicals industry customers have invested substantial amounts of time and money in developing petroleum-based production channels. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of chemical components, and may display substantial resistance to changing these processes. Pre-existing contractual commitments, unwillingness to invest in new infrastructure, distrust of new production methods and lengthy relationships with current suppliers may all slow market acceptance of isobutanol.

No market currently exists for isobutanol as a fuel or as a gasoline blendstock. Therefore, to gain market acceptance and successfully market our isobutanol to fuels distributors and refiners, we must effectively demonstrate the

commercial advantages of using isobutanol over other biofuels and blendstocks, as well as our ability to produce isobutanol reliably on a commercial scale at a sufficiently low cost. We must show that

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isobutanol is compatible with existing infrastructure and does not damage pipes, engines, storage facilities or pumps. We must also overcome marketing and lobbying efforts by producers of other biofuels and blendstocks, including ethanol, many of whom may have greater resources than we do. If the markets for isobutanol as a fuel or as a gasoline blendstock do not develop as we currently anticipate, or if we are unable to penetrate these markets successfully, our revenue and revenue growth rate, if any, could be materially and adversely affected.

We believe that consumer demand for environmentally sensitive products will drive demand among large brand owners for renewable hydrocarbon sources. One of our marketing strategies is to leverage this demand to obtain commitments from large brand owners to purchase products made from our isobutanol by third parties. We believe these commitments will, in turn, promote chemicals industry demand for our isobutanol. If consumer demand for environmentally sensitive products fails to develop at sufficient scale or if such demand fails to drive large brand owners to seek sources of renewable hydrocarbons, our revenue and growth rate could be materially and adversely affected.

We may face substantial delay in getting regulatory approvals for use of our isobutanol in the fuels and chemicals markets, which could substantially hinder our ability to commercialize our products.

Large-scale commercialization of our isobutanol may require approvals from state and federal agencies. Before we can sell isobutanol as a fuel or as a gasoline blendstock directly to large petroleum refiners, we must receive EPA fuel certification. We have filed EPA Part 79 registration to move our small business registration to a full registration (including Tier 1 EPA testing), and the approval process may require significant time. Approval can be delayed for years, and there is no guarantee of receiving it.

Additionally, California requires that fuels meet both its fuel certification requirements and a separate state low-carbon fuel standard. Any delay in receiving approval will slow or prevent the commercialization of our isobutanol for fuel markets, which could have a material adverse effect on our business, financial condition and results of operations.

With respect to the chemicals markets, we plan to focus on isobutanol production and sell to companies that can convert our isobutanol into other chemicals, such as isobutylene. However, should we later decide to produce these other chemicals ourselves, we may face similar requirements for EPA and other regulatory approvals. Approval, if ever granted, could be delayed for substantial amounts of time, which could significantly harm the development of our business and prevent the achievement of our goals.

Our isobutanol fermentation process utilizes a genetically modified organism which, when used in an industrial process, is considered a new chemical under the EPA s Toxic Substances Control Act (TSCA). The TSCA requires us to comply with the EPA s Microbial Commercial Activity Notice process to operate plants producing isobutanol using our biocatalysts. The TSCA s new chemicals submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our isobutanol production.

There are various third-party certification organizations, such as ASTM and Underwriters Laboratories, Inc., involved in standard-setting regarding the transportation, dispensing and use of liquid fuel in the U.S. and abroad. These organizations may change the current standards and additional requirements may be enacted that could prevent or delay approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable standards may require the expenditure of substantial resources, and there is no guarantee that we will satisfy these standards in a timely manner, if ever.

In addition, to Retrofit or otherwise modify ethanol facilities and operate the Retrofitted and modified plants to produce isobutanol, we will need to obtain and comply with a number of permit requirements. As a condition to granting necessary permits, regulators may make demands that could increase our Retrofit, modification or operations costs, and permit conditions could also restrict or limit the extent of our operations, which could delay or prevent our commercial production of isobutanol. We cannot guarantee that we will be able to meet all regulatory requirements or obtain and comply with all necessary permits to complete our planned ethanol plant Retrofits, and failure to satisfy these requirements in a timely manner, or at all, could have a substantial negative effect on our performance.

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Jet fuels must meet various statutory and regulatory requirements before they may be used in commercial aviation. In the U.S., the use of specific jet fuels is regulated by the Federal Aviation Administration (FAA). Rather than directly approving specific fuels, the FAA certifies individual aircraft for flight. This certification includes authorization for an aircraft to use the types of fuels specified in its flight manual. To be included in an aircraft s flight manual, the fuel must meet standards set by ASTM. The current ASTM requirements do not permit the use of jet fuel derived from isobutanol, and we will need to give ASTM sufficient data to justify creating a new standard applicable to ATJ. Though our work testing isobutanol-based ATJ with the U.S. Air Force Research Laboratory has provided us with data we believe ASTM will take into consideration, the process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations will require the expenditure of substantial resources. Failure to obtain regulatory approval in a timely manner, or at all, could have a significant negative effect on our operations.

We may be unable to successfully negotiate final, binding terms related to our current non-binding isobutanol supply and distribution agreements, which could harm our commercial prospects.

In addition to a limited number of definitive supply and distribution agreements, we have agreed to preliminary terms regarding supplying isobutanol or the products derived from it to various companies for their use or further distribution, including LANXESS, Inc. and TOTAL PETROCHEMICALS USA, Inc. We may be unable to negotiate final terms with these or other companies in a timely manner, or at all, and there is no guarantee that the terms of any final agreement will be the same or similar to those currently contemplated in our preliminary agreements. Final terms may include less favorable pricing structures or volume commitments, more expensive delivery or purity requirements, reduced contract durations and other adverse changes. Delays in negotiating final contracts could slow our initial isobutanol commercialization, and failure to agree to definitive terms for sales of sufficient volumes of isobutanol could prevent us from growing our business. To the extent that terms in our initial supply and distribution contracts may influence negotiations regarding future contracts, the failure to negotiate favorable final terms related to our current preliminary agreements could have an especially negative impact on our growth and profitability. Additionally, we have not demonstrated that we can meet the production levels contemplated in our current non-binding supply agreements. If our production scale-up proceeds more slowly than we expect, or if we encounter difficulties in successfully completing plant Retrofits, potential customers, including those with whom we have current letters of intent, may be less willing to negotiate definitive supply agreements, or demand terms less favorable to us, and our performance may suffer.

Even if we are successful in consistently producing isobutanol on a commercial scale, we may not be successful in negotiating sufficient supply agreements for our production.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to successfully negotiate and structure long-term supply agreements for the isobutanol we produce. Many of our potential customers may be more experienced in these matters than we are, and we may fail to successfully negotiate these agreements in a timely manner or on favorable terms which, in turn, may force us to slow our production, delay our acquiring and Retrofitting of additional plants, dedicate additional resources to increasing our storage capacity and/or dedicate resources to sales in spot markets. Furthermore, should we become more dependent on spot market sales, our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for petroleum-based fuels and competing substitutes.

Even if we are successful in consistently producing isobutanol on a commercial scale, we may not be successful in negotiating pricing terms sufficient to generate positive results from operations at the Agri-Energy Facility.

We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. As an early stage company, we lack commercial operating experience, and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to

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negotiate pricing terms for the isobutanol we produce that generate positive results from the operations of the Agri-Energy Facility. Many of our potential customers may be more experienced in these matters than we are. We may fail to negotiate these agreements in a timely manner, which may force us to dedicate resources to sales in spot markets. If we become more dependent on spot market sales our profitability will become increasingly vulnerable to short-term fluctuations in the price and demand for our products.

Our isobutanol may encounter physical or regulatory issues, which could limit its usefulness as a gasoline blendstock.

In the gasoline blendstock market, isobutanol can be used in conjunction with, or as a substitute for, ethanol and other widely used fuel oxygenates, and we believe our isobutanol will be physically compatible with typical gasoline engines. However, there is a risk that under actual engine conditions, isobutanol will face significant limitations, making it unsuitable for use in high percentage gasoline blends. Additionally, current regulations limit gasoline blends to low percentages of isobutanol, and also limit combination isobutanol-ethanol blends. Government agencies may maintain or even increase the restrictions on isobutanol gasoline blends. As we believe that the potential to use isobutanol in higher percentage blends than is feasible for ethanol will be an important factor in successfully marketing isobutanol to refiners, a low blend wall could significantly limit commercialization of isobutanol as a gasoline blendstock.

Our isobutanol may be less compatible with existing refining and transportation infrastructure than we believe, which may hinder our ability to market our product on a large scale.

We developed our business model based on our belief that our isobutanol is fully compatible with existing refinery infrastructure. For example, when making isobutanol blends, we believe that gasoline refineries will be able to pump our isobutanol through their pipes and blend it in their existing facilities without damaging their equipment. If our isobutanol proves unsuitable for such handling, it will be more expensive for refiners to use our isobutanol than we anticipate, and they may be less willing to adopt it as a gasoline blendstock, forcing us to seek alternative purchasers.

Likewise, our plans for marketing our isobutanol are based upon our belief that it will be compatible with the pipes, tanks and other infrastructure currently used for transporting, storing and distributing gasoline. If our isobutanol or products incorporating our isobutanol cannot be transported with this equipment, we will be forced to seek alternative transportation arrangements, which will make our isobutanol and products produced from our isobutanol more expensive to transport and less appealing to potential customers. Reduced compatibility with either refinery or transportation infrastructure may slow or prevent market adoption of our isobutanol, which could substantially harm our performance.

We may be required to obtain additional regulatory approvals for use of our iDGs as animal feed, which could delay our ability to sell iDGs increasing our net cost of production and harming our operating results.

Most of the ethanol plants we initially plan to Retrofit use dry-milled corn as a feedstock. Once we have optimized our full-scale commercial isobutanol production process, we plan to sell, as animal feed, the iDGs left as a co-product of fermenting isobutanol from dry-milled corn. We believe that this will enable us to offset a significant portion of the expense of purchasing corn for fermentation. We are currently approved to sell iDGs as animal feed through a self-assessed Generally Regarded as Safe (GRAS) process via third party scientific review. In order to improve the value of our iDGs , we are also in the process of obtaining U.S. Food and Drug Administration (FDA) approval for the marketing of our iDGs . We believe obtaining FDA approval will increase the value of our iDGs by offering customers of our iDGs further assurance of the safety of our iDGs . If we make changes in our biocatalyst whereby we can no longer rely on our GRAS process, we would be required to obtain FDA approval for marketing our iDGs . FDA testing

and approval can take a significant amount of time, and there is no guarantee that we will ever receive such approval. If FDA approval is delayed or never obtained, or if we are unable to secure market acceptance for our iDGs , our net cost of production will increase, which may hurt our operating results.

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Our development strategy relies heavily on our relationship with ICM.

We rely heavily upon our relationship with ICM. In October 2008, we entered into a development agreement and a commercialization agreement with ICM, each of which has since been amended. Pursuant to the terms of the development agreement, ICM engineers helped us install the equipment necessary to test and develop our isobutanol fermentation process at ICM s one MGPY ethanol demonstration facility, and ICM agreed to assist us in running and maintaining the converted plant. We have used the demonstration plant to improve our biocatalysts and to develop processes for commercial-scale production of isobutanol. Under the commercialization agreement, as amended, ICM serves as our exclusive engineering, procurement and construction (EPC) contractor for the Retrofit of ethanol plants, and we serve as ICM s exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars. In August 2011, we entered into a work agreement with ICM. Pursuant to the terms of the work agreement, ICM provides EPC services for the Retrofit of ethanol plants.

Because ICM has designed a significant number of the current operating ethanol production facilities in the U.S., we believe that our exclusive alliance with ICM will provide us with a competitive advantage and allow us to more quickly achieve commercial-scale production of isobutanol. However, ICM may fail to fulfill its obligations to us under our agreements and under certain circumstances, such as a breach of confidentiality by us, can terminate the agreements. In addition, ICM may assign the agreements without our consent in connection with a change of control. Since adapting our technology to commercial-scale production of isobutanol and then Retrofitting ethanol plants to use our technology is a major part of our commercialization strategy, losing our exclusive alliance with ICM would slow our technological and commercial development. It could also force us to find a new contractor with less experience than ICM in designing and building ethanol plants, or to invest the time and resources necessary to Retrofit plants on our own. Such Retrofits may be less successful than if performed by ICM engineers, and Retrofitted plants might operate less efficiently than expected. This could substantially hinder our ability to expand our production capacity, and could severely impact our performance. If ICM fails to fulfill its obligations to us under our agreements and our competitors obtain access to ICM s expertise, our ability to realize continued development and commercial benefits from our alliance could be affected. Accordingly, if we lose our exclusive alliance with ICM, if ICM terminates or breaches its agreements with us, or if ICM assigns its agreements with us to a competitor of ours or to a third party that is not willing to work with us on the same terms or commit the same resources, our business and prospects could be harmed.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies.

We may, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint, seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale or issuance of equity, warrants or convertible debt securities, your ownership interest will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect your rights as a stockholder. If we raise capital through debt financing, it may involve agreements that include covenants further limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships or licensing agreements with third parties, we may have to relinquish valuable rights to our technologies, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our development and commercialization efforts.

Our quarterly operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of investment research analysts or investors, which could cause our stock price to decline.

Our financial condition and operating results have varied significantly in the past and may continue to fluctuate from quarter to quarter and year to year in the future due to a variety of factors, many of which are beyond our control. Factors relating to our business that may contribute to these fluctuations are described

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elsewhere in this prospectus supplement, our Annual Report on Form 10-K for the year ended December 31, 2013, and other reports that we have filed with the SEC. Accordingly, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

Reductions or changes to existing regulations and policies may present technical, regulatory and economic barriers, all of which may significantly reduce demand for biofuels or our ability to supply isobutanol.

The market for biofuels is heavily influenced by foreign, federal, state and local government regulations and policies. For example, in 2007, the U.S. Congress passed an alternative fuels mandate that required nearly 14 billion gallons of liquid transportation fuels sold in 2011 to come from alternative sources, including biofuels, a mandate that grows to 36 billion gallons by 2022. Of this amount, a minimum of 21 billion gallons must be advanced biofuels as defined by the U.S. Congress. The EPA has set the renewable fuels volume requirement for 2013 at 16.55 billion gallons. In the U.S., and in a number of other countries, these regulations and policies have been modified in the past and may be modified again in the future. Any reduction in mandated requirements for fuel alternatives and additives to gasoline may cause the demand for biofuels to decline and deter investment in the research and development of biofuels. For example, the Energy and Commerce Committee of the U.S. House of Representatives has undertaken an assessment of the RFS program and has published five white papers on the subject during the current congressional period. The EPA has also said that it plans to assess the E10 blendwall and current infrastructure and market-based limitations to the consumption of ethanol in gasoline-ethanol blends above E10. In particular, the EPA is proposing to cut the volume requirements for advanced biofuels by more than 40% when compared to the requirements currently written into the statute. This proposal has created significant concerns throughout the biofuels industry, many of which were voiced by the biofuels industry during the public comment period. This type of legislative activity can create concern in the marketplace about the long-term sustainability of governmental policies. The absence of tax credits, subsidies and other incentives in the U.S. and foreign markets for biofuels, or any inability of our customers to access such credits, subsidies and incentives, may adversely affect demand for our products, which would adversely affect our business. The resulting market uncertainty regarding current and future standards and policies may also affect our ability to develop new renewable products or to license our technologies to third parties and to sell products to our end customers.

Concerns associated with biofuels, including land usage, national security interests and food crop usage, continue to receive legislative, industry and public attention. This attention could result in future legislation, regulation and/or administrative action that could adversely affect our business. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations.

Additionally, like the ethanol facilities that we Retrofit, our isobutanol plants will emit greenhouse gases. Any changes in state or federal emissions regulations, including the passage of cap-and-trade legislation or a carbon tax, could limit our production of isobutanol and iDGs and increase our operating costs, which could have a material adverse effect on our business, financial condition and results of operations.

If we engage in additional acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we expect to acquire businesses, assets, technologies or products to enhance our business in the future. In connection with any future acquisitions, we could, subject to certain limitations in the agreements governing our indebtedness, including our secured indebtedness with Whitebox and/or TriplePoint:

issue additional equity securities which would dilute our current stockholders;

incur substantial debt to fund the acquisitions; or

assume significant liabilities.

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Acquisitions involve numerous risks, including problems integrating the purchased operations, technologies or products, unanticipated costs and other liabilities, diversion of management s attention from our core business, adverse effects on existing business relationships with current and/or prospective partners, customers and/or suppliers, risks associated with entering markets in which we have no or limited prior experience and potential loss of key employees. Other than our acquisition of Agri-Energy, we have not engaged in acquisitions in the past, and do not have experience in managing the integration process. Therefore, we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to acquisitions and are unable to efficiently operate as a combined organization, our business, financial condition and results of operations may be materially adversely affected.

If we engage in additional joint ventures, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations.

If appropriate opportunities become available, we expect to enter into joint ventures with the owners of existing ethanol production facilities in order to acquire access to additional isobutanol production capacity. We currently anticipate that in each such joint venture, the ethanol producer would contribute access to its existing ethanol production facility and we would be responsible for Retrofitting such facility to produce isobutanol. Upon completion of the Retrofit, and in some cases the attainment of certain performance targets, both parties to the joint venture would receive a portion of the profits from the sale of isobutanol, consistent with our business model. In connection with these joint ventures, we could incur substantial debt to fund the Retrofit of the accessed facilities and we could assume significant liabilities.

Realizing the anticipated benefits of joint ventures, including projected increases to production capacity and additional revenue opportunities, involves a number of potential challenges. The failure to meet these challenges could seriously harm our financial condition and results of operations. Joint ventures are complex and time-consuming and we may encounter unexpected difficulties or incur unexpected costs related to such arrangements, including:

difficulties negotiating joint venture agreements with favorable terms and establishing relevant performance metrics;

difficulties completing the Retrofits of the accessed facilities using our integrated fermentation technology;

the inability to meet applicable performance targets related to the production of isobutanol;

difficulties obtaining the permits and approvals required to produce and sell our products in different geographic areas;

complexities associated with managing the geographic separation of accessed facilities;

diversion of management attention from ongoing business concerns to matters related to the joint ventures;

difficulties maintaining effective relationships with personnel from different corporate cultures; and

the inability to generate sufficient revenue to offset Retrofit costs.

Additionally, our joint venture partners may have liabilities or adverse operating issues that we fail to discover through due diligence prior to entering into the joint ventures. In particular, to the extent that our joint venture partners failed to comply with or otherwise violated applicable laws or regulations, or failed to fulfill their contractual obligations, we may suffer financial harm and/or reputational harm for these violations or otherwise be adversely affected.

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Our joint venture partners may have significant amounts of existing debt and may not be able to service their existing debt obligations, which could cause the failure of a specific project and the loss by us of any investment we have made to Retrofit the facilities owned by the joint venture partner. In addition, if we are unable to meet specified performance targets related to the production of isobutanol at a facility owned by one of our joint venture partners, we may never become eligible to receive a portion of the profits of the joint venture and may be unable to recover the costs of Retrofitting the facility.

Additionally, we plan to be the sole marketer for all isobutanol and co-products produced using our proprietary technology including, without limitation, all isobutanol that is produced by any facilities that we access via joint venture. Marketing agreements can be very complex and the obligations that we assume as the sole marketer of isobutanol may be time consuming. We have no experience marketing isobutanol on a commercial scale and we may fail to successfully negotiate marketing agreements in a timely manner or on favorable terms. If we fail to successfully market the isobutanol produced using our proprietary technology to refiners and chemical producers, our business, financial condition and results of operations will be materially adversely affected.

If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs and harm our research and development efforts, we may be unable to pursue partnerships or develop our own products and it may trigger an event of default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint.

Our business is complex and we intend to target a variety of markets. Therefore, it is critical that our management team and employee workforce are knowledgeable in the areas in which we operate. The loss of any key members of our management, including our named executive officers, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. In addition, the loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology-based businesses, particularly in the advanced biofuels area, or due to the limited availability of personnel with the qualifications or experience necessary for our renewable chemicals and advanced biofuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our partners and customers in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. Additionally, certain changes in our management could trigger an event of default under the agreements governing our indebtedness, including our secured indebtedness with TriplePoint, and we could be forced to pay the outstanding balance of the loan(s) in full. All of our employees are at-will employees, meaning that either the employee or we may terminate their employment at any time.

Our planned activities will require additional expertise in specific industries and areas applicable to the products and processes developed through our technology platform or acquired through strategic or other transactions, especially in the end markets that we seek to penetrate. These activities will require the addition of new personnel, and the development of additional expertise by existing personnel. The inability to attract personnel with appropriate skills or to develop the necessary expertise could impair our ability to grow our business.

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Our ability to compete may be adversely affected if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights through costly litigation or administrative proceedings.

Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U.S. and other countries. We have adopted a strategy of seeking patent protection in the U.S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. As such, as of December 31, 2014, we exclusively licensed rights to approximately 106 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions, and we owned rights to approximately 409 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. When and if issued, patents would expire at the end of their term and any patent would only provide us commercial advantage for a limited period of time, if at all. Our patent applications are directed to our enabling technologies and to our methods and products which support our business in the advanced biofuels and renewable chemicals markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate.

Only approximately 33 of the patent applications that we have filed in the U.S. or in any foreign jurisdictions, and only certain of the patent applications filed by third parties in which we own rights, have been issued. A filed patent application does not guarantee a patent will issue and a patent issuing does not guarantee its validity, nor does it give us the right to practice the patented technology or commercialize the patented product. Third parties may have or obtain rights to blocking patents that could be used to prevent us from commercializing our products or practicing our technology. The scope and validity of patents and success in prosecuting patent applications involve complex legal and factual questions and, therefore, issuance, coverage and validity cannot be predicted with any certainty. Patents issuing from our filed applications may be challenged, invalidated or circumvented. Moreover, third parties could practice our inventions in secret and in territories where we do not have patent protection. Such third parties may then try to sell or import products made using our inventions in and into the U.S. or other territories and we may be unable to prove that such products were made using our inventions. Additional uncertainty may result from implementation of the Leahy-Smith America Invents Act, enacted in September 2011, as well as other potential patent reform legislation passed by the U.S. Congress and from legal precedent as handed down by the U.S. Court of Appeals for the Federal Circuit and the U.S. Supreme Court, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to the validity of any patents that may issue and the potential for blocking patents coming into force at some future date. Accordingly, we cannot ensure that any of our currently filed or future patent applications will result in issued patents, or even if issued, predict the scope of the claims that may issue in our and other companies patents. Several of our issued patents are being challenged in regulatory proceedings before the USPTO. These proceedings may result in the claims being amended or canceled. If the claims are amended or canceled, the scope of our patents claims may be narrowed, which may reduce the scope of protection afforded by our patent portfolio. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that (i) we were the first to make the inventions covered by each of our filed applications, (ii) we were the first to file patent applications for these inventions, (iii) the proprietary technologies we develop will be patentable, (iv) any patents issued will be broad enough in scope to provide commercial advantage and prevent circumvention, and (v) competitors and other parties do not have or will not obtain patent protection that will block our development and commercialization activities.

These concerns apply equally to patents we have licensed, which may likewise be challenged, invalidated or circumvented, and the licensed technologies may be obstructed from commercialization by competitors blocking patents. In addition, we generally do not control the patent prosecution and maintenance of subject matter that we license from others. Generally, the licensors are primarily or wholly responsible for the patent prosecution and

maintenance activities pertaining to the patent applications and patents we license, while we may only be afforded opportunities to comment on such activities. Accordingly, we are unable to exercise the same

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degree of control over licensed intellectual property as we exercise over our own intellectual property and we face the risk that our licensors will not prosecute or maintain it as effectively as we would like.

In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, particularly where, as here, the end products reaching the market generally do not reveal the processes used in their manufacture, and particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the U.S., so we cannot be certain that the steps we have taken in obtaining intellectual property and other proprietary rights will prevent unauthorized use of our technology. If competitors are able to use our technology without our authorization, our ability to compete effectively could be adversely affected. Moreover, competitors and other parties such as universities may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, the potential competitive advantages provided by our intellectual property may be adversely affected. We may then need to license these competing technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause material harm to our business. Accordingly, litigation may be necessary for us to assert claims of infringement, enforce patents we own or license, protect trade secrets or determine the enforceability, scope and validity of the intellectual property rights of others.

Our commercial success also depends in part on not infringing patents and proprietary rights of third parties, and not breaching any licenses or other agreements that we have entered into with regard to our technologies, products and business. We cannot be certain that patents have not or will not issue to third parties that could block our ability to obtain patents or to operate our business as we would like, or at all. There may be patents in some countries that, if valid, may block our ability to commercialize products in those countries if we are unsuccessful in circumventing or acquiring rights to these patents. There may also be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize products or processes in these countries if we are unable to circumvent or license them.

As is commonplace in the biotechnology industries, some of our directors, employees and consultants are or have been employed at, or associated with, companies and universities that compete with us or have or will develop similar technologies and related intellectual property. While employed at these companies, these employees, directors and consultants may have been exposed to or involved in research and technology similar to the areas of research and technology in which we are engaged. Though we have not received such a complaint, we may be subject to allegations that we, our directors, employees or consultants have inadvertently or otherwise used, misappropriated or disclosed alleged trade secrets or confidential or proprietary information of those companies. Litigation may be necessary to defend against such allegations and the outcome of any such litigation would be uncertain.

Under some of our research agreements, our partners share joint rights in certain intellectual property we develop. For example, under our development agreement with ICM, we have exclusive rights to all intellectual property developed within the defined scope of the project, but all other intellectual property developed pursuant to the agreement is to be jointly owned. Such provisions may limit our ability to gain commercial benefit from some of the intellectual property we develop, and may lead to costly or time-consuming disputes with parties with whom we have commercial relationships over rights to certain innovations.

If any other party has filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference, derivation or other proceedings declared by the USPTO to determine priority of invention and, thus, the right to the patents for these inventions in the U.S. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, such a proceeding may result in the loss of certain claims. Even successful outcomes of such proceedings could result in significant legal fees and other expenses, diversion of management time and efforts and disruption in our business. Uncertainties resulting from initiation and

continuation of any patent or related litigation could harm our ability to compete.

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If our biocatalysts, or the genes that code for our biocatalysts, are stolen, misappropriated or reverse engineered, others could use these biocatalysts or genes to produce competing products.

Third parties, including our contract manufacturers, customers and those involved in shipping our biocatalysts, may have custody or control of our biocatalysts. If our biocatalysts, or the genes that code for our biocatalysts, were stolen, misappropriated or reverse engineered, they could be used by other parties who may be able to reproduce these biocatalysts for their own commercial gain. If this were to occur, it would be difficult for us to discover or challenge this type of use, especially in countries with limited intellectual property protection.

We may not be able to enforce our intellectual property rights throughout the world.

The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U.S. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bioindustrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop.

Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information.

We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual s relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that know-how and inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, these agreements may not be enforceable, our proprietary information may be disclosed, third parties could reverse engineer our biocatalysts and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. In addition, an unauthorized breach in our information technology systems may expose our trade secrets and other proprietary information to unauthorized parties.

We have received funding from U.S. government agencies, which could negatively affect our intellectual property rights.

Some of our research has been funded by grants from U.S. government agencies. When new technologies are developed with U.S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a nonexclusive license authorizing the government to use the invention or technical data for noncommercial purposes. U.S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march-in rights. March-in rights refer to the right of the U.S.

government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible applicant or, if we refuse, to grant such a license itself. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety

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needs, to meet requirements of federal regulations or to give preference to U.S. industry. If we breach the terms of our grants, the government may gain rights to the intellectual property developed in our related research. The government s rights in our intellectual property may lessen its commercial value, which could adversely affect our performance.

Our government grants are subject to uncertainty, which could harm our business and results of operations.

We have received various government grants, including a cooperative agreement, to complement and enhance our own resources. We may seek to obtain government grants and subsidies in the future to offset all or a portion of the costs of Retrofitting existing ethanol manufacturing facilities and the costs of our research and development activities. We cannot be certain that we will be able to secure any such government grants or subsidies. Any of our existing grants or new grants that we may obtain may be terminated, modified or recovered by the granting governmental body under certain conditions.

We may also be subject to audits by government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by us toward the research and development programs specified by the granting agencies, rather than for all of our programs generally. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to our revenues and results of operations.

We may face substantial competition, which could adversely affect our performance and growth.

We may face substantial competition in the markets for isobutanol, ethanol, polyester, rubber, plastics, fibers, other polymers and hydrocarbon fuels. Our competitors include companies in the incumbent petroleum-based industry as well as those in the nascent biorenewable industry. The incumbent petroleum-based industry benefits from a large established infrastructure, production capability and business relationships. The incumbents—greater resources and financial strength provide significant competitive advantages that we may not be able to overcome in a timely manner. Academic and government institutions may also develop technologies which will compete with us in the chemicals, solvents and blendstock markets.

The biorenewable industry is characterized by rapid technological change. Our future success will depend on our ability to maintain a competitive position with respect to technological advances. Technological development by others may impact the competitiveness of our products in the marketplace. Competitors and potential competitors who have greater resources and experience than we do may develop products and technologies that make ours obsolete or may use their greater resources to gain market share at our expense.

In the production of isobutanol, we face competition from Butamax. Additionally, a number of companies including Cathay Industrial Biotech, Ltd., Green Biologics Ltd., METabolic Explorer, S.A., Eastman Chemical Company (which acquired TetraVitae Bioscience, Inc. in November 2011) and Cobalt Technologies, Inc. are developing n-butanol production capability from a variety of renewable feedstocks.

In the ethanol market, we operate in a highly competitive industry in the United States. According to the Renewable Fuels Association, there are over 200 ethanol facilities in the United States with an installed nameplate capacity of almost 15 billion gallons. Some of the key competitors in the United States include Archer-Daniels-Midland Company, POET, LLC, Valero Energy Corporation and Green Plains Renewable Energy, Inc. We also face competition from foreign producers of ethanol. Brazil is believed to be the world s second largest ethanol producing country. Many producers have much larger production capacities and operate at a lower cost of production than we do.

As a result, these companies may be able to compete more effectively in narrower commodity margin environments.

In the polyester, rubber, plastics, fibers and other polymers markets, we face competition from incumbent petroleum-derived products, other renewable isobutanol producers and renewable n-butanol producers. Our competitive position versus the incumbent petroleum-derived products and other renewable butanol producers

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may not be favorable. Petroleum-derived products have dominated the market for many years and there is substantial existing infrastructure for production from petroleum sources, which may impede our ability to establish a position in these markets. Other isobutanol and n-butanol companies may develop technologies that prove more effective than our isobutanol production technology, or such companies may be more adept at marketing their production. Additionally, one small company in France, Global Bioenergies, S.A., is pursuing the production of isobutylene from renewable carbohydrates directly. Since conversion of isobutanol to butenes such as isobutylene is a key step in producing many polyester, rubber, plastics, fibers and other polymers from our isobutanol, this direct production of renewable isobutylene, if successful, could limit our opportunities in these markets.

In the gasoline blendstock market, we will compete with renewable ethanol producers (including those working to produce ethanol from cellulosic feedstocks), producers of alkylate from petroleum and producers of other blendstocks, all of whom may reduce our ability to obtain market share or maintain our price levels. For example, Coskata, Inc. is developing a hybrid thermochemical-biocatalytic process to produce ethanol from a variety of feedstocks. If any of these competitors succeed in producing blendstocks more efficiently, in higher volumes or offering superior performance than our isobutanol, our financial performance may suffer. Furthermore, if our competitors have more success marketing their products or reach development or supply agreements with major customers, our competitive position may also be harmed.

In the production of other biofuels, key competitors include Shell Oil Company, BP, DuPont-Danisco Cellulosic Ethanol LLC, Abengoa Bioenergy, S.A., POET, LLC, ICM, Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Coskata, Inc., Archer Daniels Midland Company, BlueFire Ethanol, Inc., KL Energy Corporation, ZeaChem Inc., Iogen Corporation, Qteros, Inc., AE Biofuels, Inc. and many smaller startup companies. If these companies are successful in establishing low cost cellulosic ethanol or other fuel production, it could negatively impact the market for our isobutanol as a gasoline blendstock.

In the markets for the hydrocarbon fuels that we plan to produce from our isobutanol, we will face competition from the incumbent petroleum-based fuels industry. The incumbent petroleum-based fuels industry makes the vast majority of the world s gasoline, jet and diesel fuels and blendstocks. It is a mature industry with a substantial base of infrastructure for the production and distribution of petroleum-derived products. The size, established infrastructure and significant resources of many companies in this industry may put us at a substantial competitive disadvantage and delay or prevent the establishment and growth of our business in the market for hydrocarbon fuels.

Biofuels companies may also provide substantial competition in the hydrocarbon fuels market. With respect to production of renewable gasoline, biofuels competitors are numerous and include both large established companies and numerous startups. For example, Virent Energy Systems, Inc. has developed a process for making gasoline and gasoline blendstocks and Kior, Inc. has developed a technology platform to convert biomass into renewable crude oil. Many other competitors may do so as well. In the jet fuel market, we will face competition from companies such as Synthetic Genomics, Inc., Solazyme, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation that are pursuing production of jet fuel from algae-based technology. Renewable Energy Group, Inc. and others are also targeting production of jet fuels from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrogenated fatty acid methyl esters. In the diesel fuels market, competitors such as Amyris Biotechnologies, Inc. and Renewable Energy Group, Inc. have developed technologies for production of alternative hydrocarbon diesel fuel.

In the polyester, rubber, plastics, fibers and other polymers markets and the hydrocarbon fuels market, we expect to face vigorous competition from existing technologies. The companies we may compete with may have significantly greater access to resources, far more industry experience and/or more established sales and marketing networks. Additionally, since we do not plan to produce most of these products directly, we depend on the willingness of

potential customers to purchase and convert our isobutanol into their products. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of the chemical components of their products and may have a resistance to changing these processes and components. These potential customers frequently impose lengthy and complex product qualification procedures on their suppliers, influenced by consumer preference, manufacturing considerations such as process changes and capital

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and other costs associated with transitioning to alternative components, supplier operating history, regulatory issues, product liability and other factors, many of which are unknown to, or not well understood by, us. Satisfying these processes may take many months or years. If we are unable to convince these potential customers that our isobutanol is comparable or superior to the alternatives that they currently use, we will not be successful in entering these markets and our business will be adversely affected.

We also face challenges in marketing our isobutanol. Though we intend to enhance our competitiveness through partnerships and joint development agreements, some competitors may gain an advantage by securing more valuable partnerships for developing their hydrocarbon products than we are able to obtain. Such partners could include major petrochemical, refiner or end-user companies. Additionally, petrochemical companies may develop alternative pathways for hydrocarbon production that may be less expensive, and may utilize more readily available infrastructure than that used to convert our isobutanol into hydrocarbon products.

We plan to enter into partnerships through which we will sell significant volumes of our isobutanol to partners who will convert it into useful hydrocarbons or use it as a fuel or as a gasoline blendstock. However, if any of these partners instead negotiate supply agreements with other buyers for the isobutanol they purchase from us, or sell it into the open market, they may become competitors of ours in the field of isobutanol sales. This could significantly reduce our profitability and hinder our ability to negotiate future supply agreements for our isobutanol, which could have an adverse effect on our performance.

Our ability to compete successfully will depend on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to and/or are less expensive than other products on the market. Many of our competitors have substantially greater production, financial, research and development, personnel and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and/or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation. Furthermore, to secure purchase agreements from certain customers, we may be required to enter into exclusive supply contracts, which could limit our ability to further expand our sales to new customers. Likewise, major potential customers may be locked into long-term, exclusive agreements with our competitors, which could inhibit our ability to compete for their business.

In addition, various governments have recently announced a number of spending programs focused on the development of clean technologies, including alternatives to petroleum-based fuels and the reduction of carbon emissions. Such spending programs could lead to increased funding for our competitors or a rapid increase in the number of competitors within those markets.

Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position and prevent us from obtaining or maintaining profitability.

Business interruptions could delay us in the process of developing our products and could disrupt our sales.

We are vulnerable to natural disasters and other events that could disrupt our operations, such as riots, civil disturbances, war, terrorist acts, floods, infections in our laboratory or production facilities or those of our contract manufacturers and other events beyond our control. We do not have a detailed disaster recovery plan. In addition, we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business. Furthermore, ICM may terminate our commercialization agreement if a force majeure event interrupts our operations for a specified period of time.

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We engage in hedging transactions, which could harm our business.

We have engaged in hedging transactions to offset some of the effects of volatility in commodity prices. We have generally followed a policy of using exchange-traded futures contracts to reduce our net position in agricultural commodity inventories and forward purchase contracts to manage price risk. Hedging activities may cause us to suffer losses, such as if we purchase a position in a declining market or sell a position in a rising market. Furthermore, hedging exposes us to the risk that we may have under- or over-estimated our need for a specific commodity or that the other party to a hedging contract may default on its obligation. If there are significant swings in commodity prices, or if we purchase more corn for future delivery than we can process, we may have to pay to terminate a futures contract, resell unneeded corn inventory at a loss, or produce our products at a loss, all of which would have a material adverse effect on our financial performance. We may vary the hedging strategies we undertake, which could leave us more vulnerable to increases in commodity prices or decreases in the prices of isobutanol, distiller s grains, iDGs or ethanol. Losses from hedging activities and changes in hedging strategy could have a material adverse effect on our operations.

Ethical, legal and social concerns about genetically engineered products and processes, and similar concerns about feedstocks grown on land that could be used for food production, coul