Gevo, Inc.
Form 424B5
June 28, 2018
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Filed Pursuant to Rule 424(b)(5)
Registration File No. 333-211370

Prospectus Supplement

(To Prospectus dated August 2, 2016)

Gevo, Inc.

Up to $66,900,000

Common Stock

We have entered into an At-the-Market Offering Agreement, dated February 13, 2018, as amended on June 20, 2018 and June 25, 2018, and as further amended on June 28, 2018 (as amended, the "Sales Agreement"), with H.C. Wainwright & Co., LLC ("H.C. Wainwright") relating to shares of our common stock, par value $0.01 per share, offered by this prospectus supplement and the accompanying prospectus. In accordance with the terms of the Sales Agreement, we may from time to time offer and sell shares of our common stock having an aggregate offering price of up to $66,900,000 under this prospectus supplement through H.C. Wainwright as our sales agent.

Sales of the shares of common stock, if any, may be made by means of transactions that are deemed to be "at-the-market" offerings, as defined in Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"), including ordinary brokers' transactions on the Nasdaq Capital Market ("Nasdaq") or other trading market. The sales agent will receive from us a commission of 2.5% based on the gross sales price per share for any shares sold through the sales agent under the Sales Agreement.

Under the terms of the Sales Agreement, we also may sell shares of our common stock to the sales agent as principal for its own account at a price agreed upon at the time of sale. If we sell shares to the sales agent as principal, we will enter into a separate terms agreement with the sales agent. If we and H.C. Wainwright agree on any method of distribution other than sales of shares of our common stock into the Nasdaq Capital Market or another existing trading market in the United States at market prices, we will file a further prospectus supplement providing all information

about such offering as required by Rule 424(b) under the Securities Act. In connection with the sale of shares of our common stock on our behalf, the sales agent may be deemed to be an "underwriter" within the meaning of the Securities Act, and the compensation paid to the sales agent may be deemed to be underwriting commissions or discounts.

The sales agent is not required to sell any specific number or dollar amount of shares of our common stock, but, subject to the terms and conditions of the Sales Agreement and unless otherwise agreed by us and the sales agent, the sales agent will use their commercially reasonable efforts to sell the shares offered as our sales agent. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

Our common stock is traded on the Nasdaq Capital Market under the symbol "GEVO." On June 27, 2018, the last reported sale price of our common stock on the Nasdaq Capital Market was $7.57 per share.

As of June 28, 2018, the aggregate market value of our outstanding common stock held by non-affiliates, or public float, is approximately $90.1 million, based on the closing price of our common stock as reported on the Nasdaq Capital Market on June 19, 2018, as calculated in accordance with General Instruction I.B.6 of Form S-3.

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 "Risk Factors" beginning on page S-6 of this prospectus supplement, on page 4 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.

H.C. Wainwright & Co.

The date of this prospectus supplement is June 28, 2018.

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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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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein contain forward-looking statements within the meaning of Section 27A of the Securities Act and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). These statements involve known and unknown risks, uncertainties and other important factors that may cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by the forward-looking statements. Forward-looking statements may include, but are not limited to, risks and uncertainties related to our ability to sell our products, our ability to expand or continue production of ethanol and isobutanol at our Luverne Facility (as defined below), our ability to meet our production, financial and operational guidance, our ability and plans to construct a commercial hydrocarbon facility to produce ATJ, our ability to raise additional funds to continue operations and/or expand the Luverne Facility, our ability to produce ethanol and isobutanol on a commercial level and at a profit, achievement of advances in our technology platform, the success of our Retrofit production model, the availability of suitable and cost-competitive feedstocks, our ability to gain market acceptance for our products, the expected cost-competitiveness and relative performance attributes of our ethanol and isobutanol and the products derived from isobutanol, additional competition and changes in economic conditions, the future price and volatility of petroleum and products derived from petroleum and statements regarding our intended uses of the proceeds of the securities offered hereby. In some cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "potential" or "continue," the negative of such terms or other comparable terminology.

Forward-looking statements reflect our current views about future events, are based on assumptions, and are subject to known and unknown risks and uncertainties. Many important factors could cause actual results, performance or achievements to differ materially from the results, performance or achievements expressed in or implied by our forward-looking statements, including the factors listed below. Many of the factors that will determine future results, performance or achievements are beyond our ability to control or predict. The following are important factors, among others, that could cause actual results, performance or achievements to differ materially from the results, performance or achievements reflected in our forward-looking statements:

- our intent and ability to construct additional improvements to the Luverne Facility to produce low-carbon ethanol;
- our ability to continue as a going concern;
- our ability to timely repay or restructure our outstanding debt obligations;
- our ability to produce full-scale commercial quantities of ethanol and/or isobutanol in a timely and economic manner;

fluctuations in the market price of petroleum;

fluctuations in the market price of corn and other feedstocks;

unexpected delays, operational difficulties, cost-overruns or failures in our production processes;

our ability to successfully identify and acquire access to additional facilities suitable for production of our products;

our ability to successfully commercialize ethanol, isobutanol and the products derived from isobutanol;

our ability to market our ethanol and isobutanol to potential customers;

our ability to obtain regulatory approval for ethanol, the use of our isobutanol and the products derived from our isobutanol, including, without limitation, our renewable jet fuel, in our target markets;

our ability to adequately protect our intellectual property, or the loss of some of our intellectual property rights through costly litigation or administrative proceedings;

our ability to transition our preliminary commitments into definitive supply and distribution agreements or to negotiate sufficient long-term supply agreements for our production of isobutanol;

general economic conditions and inflation, interest rate movements and access to capital; and

our ability to effectively use the net proceeds from this offering.

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The forward-looking statements contained herein reflect our views and assumptions only as of the date such forward-looking statements are made. You should not place undue reliance on forward-looking statements. Except as required by law, we assume no responsibility for updating any forward-looking statements nor do we intend to do so. Our actual results, performance or achievements could differ materially from the results expressed in, or implied by, these forward-looking statements. The risks included in this section are not exhaustive. Additional factors that could cause actual results to differ materially from those described in the forward-looking statements are set forth in the section entitled “Risk Factors” of this prospectus supplement, the accompanying prospectus and our Annual Report on Form 10-K for the year ended December 31, 2017, filed with the SEC on March 28, 2018 (the “2017 Annual Report”), which is incorporated by reference herein.

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PROSPECTUS SUPPLEMENT SUMMARY

The following summary highlights information contained elsewhere in this prospectus supplement and the accompanying prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our securities, you should read this entire prospectus supplement and the accompanying prospectus carefully, including the sections entitled "Risk Factors" included elsewhere in this prospectus supplement and the accompanying prospectus, the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our audited consolidated financial statements and the related notes thereto, each included in our 2017 Annual Report, which is incorporated by reference herein, and the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our unaudited consolidated financial statements and the related notes thereto, each included in our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2018, filed with the SEC on May 10, 2018 (the "2018 Q1 Quarterly Report"), which is incorporated by reference herein. Some of the statements in this prospectus supplement and the accompanying prospectus, and in our 2017 Annual Report and in our 2018 Q1 Quarterly Report, each of which is incorporated by reference herein, constitute forward-looking statements. See "Cautionary Note Regarding Forward-Looking Statements."

In this prospectus supplement, unless the context otherwise requires, references to "we," "us," "our," the "Company" and "Gevo" refer to Gevo, Inc., a Delaware corporation, and its wholly owned or indirect subsidiaries, and their predecessors.

Company Overview

We are a next generation "low-carbon" fuel company focused on the development and commercialization of renewable alternatives to petroleum-based products. Low-carbon fuels reduce the carbon intensity, or the level of greenhouse gas emissions, compared to standard fossil-based fuels across their lifecycle. The most common low-carbon fuels are renewable fuels. We are focused on the development and production of mainstream fuels like gasoline and jet fuel using renewable feedstocks, that have the potential to lower greenhouse gas emissions at a meaningful scale and enhance agricultural production, including food and other related products. In addition to serving the low-carbon fuel markets, through our technology, we can also serve markets for the production of chemical intermediate products for solvents, plastics, and building block chemicals.

Our proven production technologies target what we believe to be large potential markets of renewable fuels and related chemicals that can compete directly against petrochemical products depending on the price of oil and the value of carbon intensity. Renewable fuels are one of the few fuel products where the value for renewable carbon has already been established, particularly in the United States and the European Union. We believe that the demand for low-carbon fuels and renewable chemicals will continue to grow in the future.

Decarbonization

We believe that we have the technology and production platform to produce renewable fuels that reduce or eliminate greenhouse gases from the burning of fuels, and to do so profitably. Low-carbon fuels can best be produced by (i) replacing fossil-based carbon with renewable carbon, and (ii) replacing some or most of the fossil-based energy sources needed for heat and electricity during the fuel production process. Renewable carbon comes from growing plants and crops. Growing plants efficiently provides the opportunity to capture carbon in the soil and generate protein, further lowering the carbon intensity of fuels produced from these renewable feedstocks. Eliminating or reducing fossil-based carbon is referred to as "decarbonization," and the products resulting from such a decarbonization process are rewarded with a lower carbon intensity ("C.I.") score, which increases the market value of certain products. In addition to the U.S. Renewable Fuel Standard policy that rewards low-carbon fuels, certain markets in North America such as California, Oregon, Washington and Canada and countries such as Japan, China, India, and other Asian countries are ascribing extra economic value on decarbonization. We believe that decarbonization is an emerging market opportunity, and that we have the technologies, products and a base production facility to take advantage of this opportunity.

The State of California is a leader in the push for decarbonization with its Low Carbon Fuel Standard (LCFS), which is a market-based cap and trade approach to lowering the greenhouse gas emissions from petroleum-based transportation fuels. We believe that the LCFS approach to reducing greenhouse gases will be implemented by Canada and other states in the United States (Oregon and Washington, as examples) and eventually could be implemented at the Federal level, which should create more demand for low-carbon fuel products. The demand and value for low-carbon fuel products in California has sharpened our focus on low C.I. ethanol. Our current production plant is small enough and specialized enough so that, with certain process optimizations, we could reduce our demand for fossil-based energy required in the production process. By doing this, we would increase the value of our ethanol because it would carry a lower C.I. score, which would translate into a premium selling price in the market. Any improvements we make to produce low-carbon ethanol, are also expected to benefit any other low-carbon products we produce, such as our renewable isobutanol, jet fuel and isooctane (gasoline).

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Low-Carbon Ethanol Opportunity

Our specialty production facility in Luverne, Minnesota (the "Luverne Facility") has an annual production capacity of approximately 20 million gallons of ethanol, 45-50 kilotons of animal feed, and 3 million pounds of corn oil.

The Luverne Facility has the capability, with certain capital improvements, to produce low-carbon ethanol side-by-side with low-carbon isobutanol, in addition to renewable jet fuel and isooctane and other related products that can be made from isobutanol. By focusing on low-carbon ethanol in the near term, debottlenecking production, while adapting and optimizing the Luverne Facility's energy and equipment infrastructure to use lower amounts of lower fossil-based energy sources, we believe that we can increase revenues to make the Luverne Facility profitable on a non-GAAP Cash EBITDA basis. Cash EBITDA is a non-GAAP measure and is calculated by adding depreciation and non-cash stock compensation to GAAP loss/income from operations.

In addition, by undertaking further capital investments to improve our Luverne Facility, we believe we may be able to generate sufficient profits at the Luverne Facility to make the Company on a consolidated basis profitable on a non-GAAP Cash EBITDA basis, independent from the production and sales of isobutanol, jet fuel, isooctane and related technologies. Such capital investments could include: (i) improvements at the Luverne Facility to further lower the C.I. score of our fuel products; and (ii) installing fractionation technologies at the Luverne Facility to produce value added protein feed products, food grade corn oil, as well products using the fiber fraction of corn. Concurrently, while focusing on low-carbon ethanol, we plan on expanding hydrocarbon production either at our hydrocarbons demonstration plant located at South Hampton Resources located in Silsbee, Texas (the "Silsbee Facility") or, subject to securing adequate financing, by constructing a new larger demo facility at the Luverne Facility for specialty hydrocarbon fuels, which may add additional positive cash flow on a non-GAAP Cash EBITDA basis.

The future improvements that we are planning for the Luverne Facility will lower the carbon intensity of the Luverne Facility and should benefit both ethanol and isobutanol production. The smaller size of our Luverne Facility compared to other ethanol production facilities means that the Luverne Facility offers opportunities to lower carbon intensity that other larger scale plants might not possess. For example, we could install small cogeneration units or make certain changes to unit operations to improve water removal efficiency given the lower power demands for steam and electricity which would result in lower ongoing capital expenditures. We believe that smaller, specialized biofuel production facilities aimed at low-carbon specialty fuels, related specialty protein products, and food oils, will have an advantage over large scale ethanol plants that, out of necessity, have to focus on commodity products for industrial markets. In other words, as these low C.I. markets further develop, tracking carbon lifecycles will be important. Tracking carbon means knowing the supply of feedstock and how it is grown. We believe a smaller production facility like our Luverne Facility will be better positioned to source responsibly grown feedstocks.

Renewable Isobutanol, Jet Fuel, Gasoline and Related Products

We believe that renewable isobutanol is a potentially valuable commercial product because of its versatility to address large markets either as a product directly or as a key intermediate for producing renewable carbon alternatives to mainstream fuels such as jet fuel, gasoline, plastics such as polyethylene terephthalate ("PET"), and various other chemical products and materials. 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 more importantly from a market size and performance value-added point of view, as a gasoline blendstock. Because isobutanol can be readily converted to hydrocarbon products such hydrocarbon fuels, including isooctane, isooctene and alcohol-to-jet fuel ("ATJ"), lubricants, polyester, rubber, plastics, fibers and other polymers, we believe that the addressable markets are large, potentially being able to ultimately reach 40% of the global petrochemicals markets depending on the price of oil and the market value of renewable carbon.

We also have proven that our renewable isobutanol can be readily converted to hydrocarbon products that address large markets, such as jet fuel and isooctane. Specifically, our renewable ATJ has been certified for use in commercial aviation and used multiple times for commercial flights.

Our renewable isobutanol is being used as a gasoline blendstock in the Houston area for on-road vehicles as an ethanol-free fuel option for consumers and off-road uses in vehicles, boats and small engines.

Our renewable isooctane meets the performance and specification requirements for use in fuels and related chemicals. It is currently being used in the European Union as a fuel for Formula One race cars, as well as other applications. As a result of the commercial traction that we have already achieved, we believe that there is large potential to grow our business, through a combination of (i) directly producing and selling our renewable isobutanol and related hydrocarbon products and (ii) licensing our technology.

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Our Strategy

Our strategy to grow our business is to become profitable by investing capital to upgrade the Luverne Facility to primarily produce low-carbon ethanol for the California market. We plan to use low-carbon ethanol to achieve positive cash flows, which should provide us the time to execute on our ultimate business goal of producing and selling into the isobutanol and its derivative hydrocarbon product markets such as ATJ and isooctane. Key elements of our strategy include:

Undertake incremental process improvements to lower energy consumption at the Luverne Facility. By investing additional capital at the Luverne Facility, we believe that we can lower the carbon intensity (i.e. lower the carbon dioxide emissions from the plant) creating additional profit margin opportunities in low-carbon markets for ethanol, as well as for our isobutanol and its derivative hydrocarbon products.

Implement fractionation technology at the Luverne Facility. We are evaluating various corn fractionation technologies that can be deployed at the Luverne Facility in order to generate additional revenue from incremental volumes of alcohol, distiller grains and corn oil, as well as generate new revenue opportunities from the production and sale of corn fiber.

Expand hydrocarbon production at the Silsbee Facility. Along with our production partner, South Hampton Resources, we plan to expand and reconfigure the Silsbee Facility in order to generate greater revenues and better profit margins, while enabling customers to further develop markets for ATJ and isooctane which will help us transition these customers to long-term off-take agreements for greater volumes of products.

Enter into supply agreements for isobutanol and its derivative hydrocarbon products with customers to support capacity growth using project financing or other less expensive and less dilutive forms of capital. We intend to build on our existing customer contracts, such as our isooctane supply agreements with HCS Holding GmbH, to obtain additional binding off-take agreements that would economically support converting the Luverne Facility primarily to the production of isobutanol and its derivative hydrocarbon products. If we are able to obtain sufficient new supply agreements, we expect to be able to raise capital to fund such conversion of the Luverne Facility using project financing or other less expensive and less dilutive forms of capital as compared to the equity offerings that we are conducting hereby and have used in the past.

Subject to receipt of financing, we plan to scale up the Luverne Facility for the production of isobutanol and its derivative products. Upon, and subject to, securing adequate financing, we plan to build out the Luverne Facility to enable the production of isobutanol and its derivative products at levels sufficient to supply our initial larger scale off-take agreements with our customers.

Expand the global production capacity of isobutanol and its derivative hydrocarbon products via licensing. We have proven that the isobutanol production process works in full scale fermenter systems at the Luverne Facility,

and we have also proven that our renewable isobutanol can be readily converted to hydrocarbon products at the Silsbee Facility. We intend to expand the global production of isobutanol and its derivative hydrocarbon products beyond the Luverne Facility through a low-cost, high-margin licensing model, in collaboration with partners such as Praj Industries, with whom we have previously announced a joint development agreement.

Competitive Strengths

Versatility of isobutanol to address large markets. Because isobutanol can be readily converted to hydrocarbon products such hydrocarbon fuels, including isooctane, isooctene, ATJ, lubricants, polyester, rubber, plastics, fibers and other polymers, we believe that the addressable markets are very large; potentially ultimately reaching 40% of the global petrochemicals markets depending on the price of oil and the market value of renewable carbon.

Proven commercial technologies and products. In addition to our ethanol production, our renewable isobutanol production technology has been proven to work at a commercial scale, (in an approximately 265,000-gallon fermenter) at our Luverne Facility. In addition, our technology to convert our renewable isobutanol to ATJ, isooctane, isooctene, and para-xylene (building block for polyester) has been proven at our Silsbee Facility. In addition, our ATJ has been used to power commercial airline flights and our renewable isobutanol is being sold commercially in the Houston market.

Existing production facility. Our Luverne Facility is located in the middle of the U.S. corn-belt providing a cost-effective source of renewable feedstock and has rail service providing an easy and cost-effective method to get products to market.

Side-by-side production ethanol and isobutanol production. We have demonstrated that we can manage both ethanol and isobutanol production using different yeasts without causing cross contamination, while still operating an integrated and efficient plant.

ASTM certified jet fuel. In 2016, ASTM International included our renewable alcohol-to-jet fuel in ASTM D7566 (Standard Specification for Aviation Turbine Fuel Containing Synthesized Hydrocarbons) which means that our ATJ can be used in commercial aviation on a blended basis up to 50% with petroleum-based jet fuel. In fact, our ATJ has been used to fuel commercial flights in the U.S. by Alaska Airlines, Lufthansa, United Airlines, Etihad, Cathay Pacific Airways, Emirates, Japan Airlines, Korean Air and Atlas Air.

Experienced management team. Our management team is experienced in the development and commercialization of low-carbon products and businesses. Patrick Gruber, our Chief Executive Officer, previously co-founded NatureWorks, LLC (formerly Cargill Dow, LLC), and served as Vice President of Technology and Operations and Chief Technology Officer until 2005. In addition, Mr. Gruber spent 16 years with Cargill Incorporated and its renewable chemical JV's. At Cargill, Mr. Gruber's role was to evaluate, develop, and bring new renewable resource-based technologies and businesses into Cargill. Chris Ryan, our President, Chief Operating Officer and Chief Technology Officer, previously served as the Chief Operating Officer and Chief Technology Officer for NatureWorks LLC, which he co-founded in 1997. While at NatureWorks, Mr. Ryan was involved in the development and commercialization of new biobased polymer, polyactide (PLA), from lab-scale production and the introduction of PLA, through its $300 million world-scale production facility. Tim Cesarek, our recently hired Chief Commercial Officer, brings over 20 years of knowledge and experience in strategic and commercial

transactions, with 15 years in the field of renewable resource-based fuels and chemicals. Mr. Cesarek oversees commercial development of our fuel and chemical products. Mr. Cesarek is expected to develop opportunities for us with strategic customers and partners.

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Recent Developments

Cash

As of June 28, 2018, we have cash and cash equivalents of approximately $27.3 million.

This amount is unaudited and preliminary, and does not present all information necessary for an understanding of our financial condition as of June 28, 2018. Our estimate is based solely on information available to us as of the date of this prospectus supplement. Our estimate contained in this prospectus supplement, therefore, is a forward-looking statement. Actual results for the quarter ending June 30, 2018 remain subject to the completion of management's and our audit committee's final reviews and our other financial closing procedures and the completion of the preparation of our unaudited consolidated financial statements. Our actual unaudited consolidated financial statements and related notes as of and for the three months ending June 30, 2018 may not be filed with the SEC until after this offering is completed, and consequently may not be available to your prior to you investing in this offering.

The preliminary financial data included in this prospectus supplement has been prepared by and is the responsibility of our management. Our independent accountant, Grant Thornton LLP, has not audited, reviewed, compiled or performed any procedures with respect to the preliminary financial data. Accordingly, Grant Thornton LLP does not express an opinion or any other form of assurance with respect thereto.

Series K Warrants Exercises

During June 2018, we received notices of exercise from holders of our Series K warrants to purchase common stock (the “Series K Warrants”) to issue an aggregate of 299,823 shares of common stock (after giving effect to the Reverse Stock Split (as defined herein)) for total gross proceeds of approximately $1.36 million. Following these exercises, Series K Warrants to purchase 4,677 shares of our common stock (after giving effect to the Reverse Stock Split) remain outstanding at an exercise price of $4.20 per share.

2020 Notes Conversions

On June 19, 2018 and June 21, 2018, we received conversion notices from the holders of our 12.0% convertible senior secured notes due 2020 (the “2020 Notes”) to convert an aggregate of approximately $3.2 million in aggregate principal

amount of 2020 Notes for an aggregate of 260,793 shares of our common stock (after giving effect to the Reverse Stock Split) at a conversion rate of 0.0679 shares of common stock per $1 principal amount of 2020 Notes. Upon completion, these conversions reduced the outstanding principal amount of the 2020 Notes to approximately $13.55 million.

At-the-Market Offering Program

In February 2018, we commenced an at-the-market offering program, which as amended on June 20, 2018 and June 25, 2018, allowed us to sell and issue up to an aggregate of $22,995,000 of shares of our common stock. To date, we have issued 2,920,781 shares of common stock (after giving effect to the Reverse Stock Split) under the at-the-market offering program for gross proceeds of approximately $22.9 million, including 2,915,573 shares of common stock (after giving effect to the Reverse Stock Split) for gross proceeds of approximately $22.9 million since March 31, 2018.

Avfuel Supply Agreement

On May 24, 2018, we entered into a long-term agreement to supply our ATJ to Avfuel Corporation, effective July 1, 2018 (the "Supply Agreement"). The Supply Agreement is our first long-term commercial supply agreement for our ATJ. The Supply Agreement contemplates two phases. During the first phase, we will supply Avfuel from our Silsbee Facility (as defined herein). Currently, the Silsbee Facility has the capacity to produce approximately 70,000 gallons of renewable hydrocarbon products per year (50% of which is ATJ and 50% of which is isooctane). During the first phase, we expect to construct a larger-scale hydrocarbon facility at our Luverne Facility to produce larger quantities of ATJ (the "Luverne Hydrocarbon Facility"), subject to our receipt of sufficient financing. Upon completion of the Luverne Hydrocarbon Facility, the second phase of the Supply Agreement would commence, which would have a term of five years, subject to extension upon the mutual agreement of the parties. During the second phase, we would supply Avfuel with larger volumes of ATJ, ramping up to 1,000,000 gallons of unblended ATJ per year.

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

Issuer	Gevo, Inc.
Common stock offered by us	Shares of common stock having an aggregate offering price of up to $66,900,000.
Plan of Distribution	At-the-market offering that may be made from time to time through our sales agent, H.C. Wainwright. We may also sell shares of our common stock to H.C. Wainwright as principal for its own account, at a price per share agreed upon at the time of sale. If we sell shares to H.C. Wainwright as principal, we will enter into a separate terms agreement setting forth the terms of such transaction, and we will describe the agreement in a separate prospectus or pricing supplement. See "Plan of Distribution."
Use of proceeds	We intend to use the net proceeds from this offering to fund working capital and for other general corporate purposes, which may include the repayment of outstanding indebtedness.
Nasdaq Capital Market symbol	"GEVO"
Transfer Agent	American Stock Transfer & Trust Company
Risk factors	This investment involves a high degree of risk. See "Risk Factors" for a discussion of factors you should carefully consider before deciding to invest in our securities.

On June 1, 2018, we effected a one-for-twenty reverse stock split (the "Reverse Stock Split"). Unless otherwise indicated, all share totals and per share amounts reflected in this prospectus supplement do not reflect the Reverse Stock Split.

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RISK FACTORS

An investment in our securities involves a high degree of risk. Prior to making a decision about investing in our securities, you should carefully consider the following risks and uncertainties, as well as those discussed under the caption "Risk Factors" in the accompanying prospectus, in our 2017 Annual Report, which is incorporated by reference herein. If any of the risks described in this prospectus supplement, the accompanying prospectus, or any documents incorporated by reference in this prospectus supplement or the accompanying prospectus actually occur, our business, prospects, financial condition or operating results could be harmed. In that case, the trading price of our securities 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 related notes thereto and the information set forth under the heading "Cautionary Note Regarding Forward-Looking Statements."

Risks Related to this Offering and Our Common Stock

Management will have broad discretion as to the use of the net proceeds from this offering, and we may not use the proceeds effectively.

Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. For example, management could invest the proceeds in assets that do not produce attractive returns or to make acquisitions of properties or businesses that do not prove to be attractive or otherwise are unsuccessful. Conversely, management may not be able to identify and complete investments or acquisitions. Our failure to apply these funds effectively could have a material adverse effect on our business, financial condition and results of operations and cause the price of our common stock to decline.

The common stock offered hereby may be sold in "at-the market" offerings, and investors who buy shares at different times will likely pay different prices.

Investors who purchase shares under this offering at different times will likely pay different prices, and so may experience different outcomes in their investment results. We will have discretion, subject to market demand, to vary the timing, prices, and numbers of shares sold, and there is no minimum or maximum sales price. Investors may

experience declines in the value of their shares as a result of share sales made at prices lower than the prices they paid.

The market price of our common stock may be adversely affected by the future issuance and sale of additional shares of our common stock, including pursuant to the Sales Agreement, or by our announcement that such issuances and sales may occur.

We cannot predict the size of future issuances or sales of shares of our common stock, including those made pursuant to the Sales Agreement with the sales agent or in connection with future acquisitions or capital raising activities, or the effect, if any, that such issuances or sales may have on the market price of our common stock. In addition, the sales agent will not engage in any transactions that stabilize the price of our common stock. The issuance and sale of substantial amounts of shares of our common stock, including issuances and sales pursuant to the Sales Agreement, or announcement that such issuances and sales may occur, could adversely affect the market price of our common stock.

We may not be permitted by the agreements governing our indebtedness, including our secured indebtedness with WB Gevo, Ltd. and its affiliates ("Whitebox"), to repurchase our warrants and we may not have the ability to do so.

Under certain circumstances, if a "fundamental transaction" or "extraordinary transaction" (as such terms are defined in our various warrants) occurs, holders of our 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 our warrants. Our ability to repurchase our 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 our warrants. In addition, any such repurchase of our warrants may result in a default under the agreements governing our indebtedness, including our secured indebtedness with Whitebox, 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 our warrants would trigger an event of default under such agreements.

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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 our 2020 Notes or exercises of warrants, may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders.

In order to fund our business over the past few years, we have raised capital by issuing common stock and warrants in underwritten public offerings because no other reasonable sources of capital were available. These underwritten public offerings of common stock and warrants have materially and adversely affected the prevailing market prices of our common stock and caused significant dilution to our stockholders. We anticipate that for the foreseeable future we will continue to raise capital through these dilutive public offerings of common stock and warrants, such as this offering.

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 the 2020 Notes. 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 2020 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 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 may 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 June 27, 2018, we had approximately $13.55 million in outstanding 2020 Notes, which were convertible into 1,109,784 shares of our common stock (after giving effect to the Reverse Stock Split) at the conversion rate in effect on June 27, 2018. The 1,109,784 shares includes 188,801 shares of common stock (in each case, after giving effect to the Reverse Stock Split) that may be issuable from time to time in the event that we pay a portion of the interest on the 2020 Notes in kind or elect to pay make-whole payments due upon conversion of the 2020 Notes, if any, in shares of common stock. The anticipated conversion of the outstanding 2020 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 2020 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. See “Prospectus Supplement Summary — Recent Developments —2020 Notes Conversions.”

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. 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 liquidity, 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 ethanol and isobutanol at the Luverne Facility and ramp up production to nameplate capacity;
- our ability to repay our indebtedness when it becomes due;
- our ability to refinance, restructure or convert our current and future indebtedness;
- additions or losses of customers or partners;
- our ability to obtain certain regulatory approvals for the use of our ethanol and isobutanol in various fuels and chemicals markets;

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- commodity prices, including oil, ethanol and corn prices;
- 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;
- announcements or expectations of additional financing efforts or the pursuit of strategic alternatives;
- changes in existing laws, regulations and policies applicable to our business and products, including the Renewable Fuel Standard program, and the adoption of or failure to adopt carbon emissions regulation;
- 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.

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 our 2020 Notes are convertible into our common stock and our 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 our 2020 Notes and our warrants. Holders who receive common stock upon exercise of our warrants will also be subject to the risk of volatility and a reduction in the market price of our common stock.

In addition, significant amounts of short selling, or the perception that a significant amount of short sales could occur, could depress the market price of our common stock and could cause material changes to the volume of our common stock traded on Nasdaq. “Short selling” is the sale of a security that the seller does not own, including a sale that is completed by the seller's delivery of a “borrowed” security (i.e. the short seller's promise to deliver the security).

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 our 2020 Notes or warrants as a more attractive means of equity participation in us and by hedging or engaging in arbitrage activity involving our common stock. The hedging or arbitrage could, in turn, affect the trading prices of our warrants, if any trading market becomes established, or any common stock that holders receive upon exercise of such warrants.

Sales of a substantial number of shares of our common stock or securities linked to our common stock, such as our 2020 Notes and warrants (should an established market for such securities then exist), 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.

In addition, certain holders of our outstanding common stock (including shares of our common stock issuable upon the conversion of certain 2020 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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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 in our 2017 Annual Report, which is incorporated by reference herein, and other reports that we have filed with the SEC that we have incorporated by reference herein. Accordingly, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

The indebtedness under our 2020 Notes are secured by substantially all of our assets. As a result of these security interests, such assets would only be available to satisfy claims of our general creditors or to holders of our equity securities if we were to become insolvent to the extent the value of such assets exceeded the amount of our indebtedness and other obligations.

Indebtedness under our 2020 Notes is secured by a first lien, on substantially all of our assets. Accordingly, if an event of default were to occur under our credit facilities, holders of our 2020 Notes would have a priority right to our assets, to the exclusion of our general creditors, in the event of our bankruptcy, insolvency, liquidation, or reorganization. In that event, our assets would first be used to repay in full all indebtedness and other obligations secured by them, resulting in all or a portion of our assets being unavailable to satisfy the claims of our unsecured indebtedness. Only after satisfying the claims of our unsecured creditors and our subsidiaries' unsecured creditors would any amount be available for distribution to holders of our equity securities.

The terms of the agreements governing our indebtedness, including the indenture governing our 2020 Notes, may restrict our ability to engage in certain transactions.

The terms of the agreements governing our indebtedness, including the indenture governing the 2020 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 the requisite holders of the 2020 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 indenture governing the 2020 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 2020 Notes, holders of the 2020 Notes

will have the right, at their option, to require us to repurchase all or a portion of their 2020 Notes and, in certain circumstances, to pay the holders of the 2020 Notes a make-whole payment equal to the aggregate amount of interest that would have been payable on such 2020 Notes from the repurchase date through the maturity date of such 2020 Notes. With respect to the 2020 Notes, we have the right to increase the conversion rate of the 2020 Notes by any amount for a period of at least 20 business days if our board of directors determines that such increase would be in our best interest. In addition, if a fundamental transaction occurs, holders of some of our 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 such warrants, as determined in accordance with the Black Scholes option pricing model and the terms of such 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 2020 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 2020 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 2020 Notes can fluctuate materially lower than the current conversion price of $14.72 per share or 0.0679 shares per $1.00 of principal.

The number of shares of common stock for which certain of our warrants, 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, August 2014, May 2015, December 2015, March 2016 and February 2017 may be subject to adjustment in connection with this offering. These provisions could result in substantial dilution to investors in our common stock. For example, we have 4,677 Series K Warrants outstanding (after giving effect to the Reverse Stock Split), whose exercise price will be reduced to the sale price of any sale pursuant to the Sales Agreement at a price lower than the then-current exercise price of the Series K Warrants. See “Prospectus Supplement Summary — Recent Developments —Series K Warrants Exercises.”

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The interest rates of the 2020 Notes can fluctuate under certain circumstances which, if triggered, can result in potentially material further dilution to our stockholders.

The interest rates of the 2020 Notes can fluctuate in certain circumstances, including in the event of a default of our obligations under the indenture governing the 2020 Notes or the registration rights agreements, if any, entered into in connection with such notes. In addition, the interest on the 2020 Notes may be payable in-kind. As we may pay a portion of the interest on the 2020 Notes in kind, by either increasing the principal amount of the outstanding 2020 Notes or issuing additional 2020 Notes, any increase to the interest rate applicable to the 2020 Notes could result in additional dilution to investors in our common stock.

We may not have the ability to pay interest on the 2020 Notes, repurchase or redeem the 2020 Notes, if applicable, or repay the 2020 Notes at maturity.

If a fundamental change (as defined in the indenture governing the 2020 Notes) occurs, holders of the 2020 Notes may require us to repurchase, for cash, all or a portion of their 2020 Notes. In such circumstance we would be required to offer to repurchase the 2020 Notes at 100% of principal plus accrued and unpaid interest to, but not including, the repurchase date. We would also be required to pay the holders of the 2020 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. If we elect to redeem the 2020 Notes prior to their maturity, the redemption price of any 2020 Notes redeemed by us will be paid for in cash. Our ability to pay the interest on the 2020 Notes, to repurchase or redeem the 2020 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 2020 Notes, to repurchase or redeem the 2020 Notes, to pay any cash amounts that may become due upon conversion of the 2020 Notes or repay the 2020 Notes at maturity, or that our cash needs will not increase. In addition, any such repurchase or redemption of the 2020 Notes, even if such action would be in our best interests, may result in a default under the agreements governing our indebtedness unless we are able to obtain the applicable lender’s consent prior to the taking of such action.

Our failure to repurchase tendered 2020 Notes at a time when the repurchase is required by the indenture governing the 2020 Notes would constitute a default under such notes and would permit holders of such notes to accelerate our obligations under the 2020 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 2020 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 the 2020 Notes, 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.

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, 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, the ownership interest of our existing shareholders 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 ability to raise capital may be limited by the Securities Act and SEC rules and regulations.

Under current SEC rules and regulations, if the aggregate market value of our common stock held by non-affiliates, or public float, falls to less than $75 million (calculated as set forth in Form S-3 and SEC rules and regulations) at the time of filing of our next Annual Report on Form 10-K, the amount we can raise through primary public offerings of our securities in any twelve-month period using a registration statement on Form S-3 will be limited to one-third of our public float. Alternative means of raising capital through sales of our securities, including through the use of a "long form" registration statement on Form S-1 registration statement or in private placements of equity or debt securities, may be more costly and time-consuming and more difficult to market to potential investors, which may have a material adverse effect on our ability to raise capital, our liquidity position and strategy.

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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 2010 Stock Incentive Plan (as amended, 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 March 31, 2018, there were 46,431 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 our warrants.

As of March 31, 2018, there were 133,607 shares of common stock available for future grant under our 2010 Plan and 3,802 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.

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

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. The future payment of dividends directly depends upon our future earnings, capital requirements, financial requirements and other factors that our board of directors will consider. 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.

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 securities or industry analysts. If one or more of the analysts who cover us downgrade our common stock or change their opinion of our common stock, our common stock price would likely decline which in turn would likely cause a decline in the value of our warrants and 2020 Notes. If one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our common stock price and the price of our warrants and 2020 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, our 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 amended and restated certificate of incorporation and our amended and restated bylaws may delay or prevent an acquisition of the Company. Among other things, our amended and restated 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.

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Risks Related to our Business and Strategy

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 June 27, 2018, we had approximately $13.55 million in outstanding 2020 Notes, which were issued to Whitebox in June 2017. 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 indenture governing the 2020 Notes. If new debt is added to our or any of our subsidiaries' debt levels, the risks described in "—Risks Related to this Offering and Our Common Stock" could intensify.

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

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 2020 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 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 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.

There is 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, 2017, were prepared under the assumption that we would continue our operations as a going concern. Our independent registered public accounting firm for the year ended December 31, 2017 included a "going concern" emphasis of matter paragraph in its report on our financial statements as of, and for the year ended, December 31, 2017, indicating that the amount of working capital at December 31, 2017 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date our 2017 financial statements are issued 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. Based on our current operating plan, existing working capital at December 31, 2017 was not sufficient to meet the cash requirements to fund planned operations through the period that is one year after the date our 2017 financial statements are issued unless we are able to restructure and extend our debt obligations and/or raise additional capital to fund operations. Without additional funds from private and/or public offerings of debt or equity securities, sales of assets, sales of our licenses of intellectual property or technologies, or other transactions, we will exhaust our resources and will be unable to continue operations beyond the fourth quarter of 2018. Assuming we receive the maximum amount of proceeds from this offering that we are seeking, we expect to be unable to continue operations beyond the second half of 2019. If we cannot continue as a viable entity, our stockholders would likely lose most or all of their investment in us.

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

We incurred net losses of $2.5 million and $5.9 million during the three months ended March 31, 2018 and 2017, respectively, and $24.6 million, $37.2 million, and $36.2 million during the years ended December 31, 2017, 2016 and 2015, respectively. As of March 31, 2018 and December 31, 2017, we had an accumulated deficit of $403.9 million and $401.4 million, respectively. We expect to incur losses and negative cash flows from operating activities for the foreseeable future. We currently derive revenue primarily from the sale of ethanol, isobutanol and related products at the Luverne Facility, although over certain periods of time, we may and have operated the plant for the sole production of ethanol and related products to maximize cash flows.

Additionally, we have generated limited revenue from the sale of products such as ATJ, isooctane and isooctene produced from isobutanol that has been used for commercial flights with Alaska Airlines, jet engine qualification and flight demonstration by the U.S. Air Force and other branches of the U.S. military, as well as specialty gasoline applications such as racing fuel. We have also generated revenue through grants and cooperative agreements. If we are unable to obtain new grants, cooperative agreements or product supply contracts, our revenues could be adversely affected.

Furthermore, we expect to spend significant amounts on the further development and commercial implementation of our technology. Our technology is designed to permit the Retrofit of existing ethanol production facilities. A “Retrofit” means either (i) modifying an existing ethanol production facility whereby equipment is added to the facility and the existing fermenters are used to produce isobutanol rather than ethanol, or (ii) modifying an existing ethanol facility to add fermenters and other equipment such that the facility is capable of producing both ethanol and isobutanol simultaneously “side by side.”

We also expect to spend significant amounts acquiring and deploying additional equipment to attain final product specifications that may be required by future customers, on marketing, general and administrative expenses associated with our planned growth, on management of operations as a public company, and on debt service obligations. 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, 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”) may 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 through the Retrofit of the Luverne 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 products, and constructing facilities necessary for the production of our products on a commercial scale. These expenditures may include costs associated with research and development, accessing existing ethanol plants, Retrofitting or otherwise modifying the plants to produce our products, obtaining government and regulatory approvals, acquiring or constructing storage facilities and negotiating supply agreements for the products 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 may 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 of adding unit operations to achieve low-carbon ethanol;

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- the timing of, and costs involved in building out a full scale isobutanol and hydrocarbons plant;
- the timing of, and costs involved in obtaining permits;
- the ability for us to deploy strains of yeast with improved performance that help to lower capital cost;
- the costs involved in acquiring and deploying additional equipment to attain final product specifications including at the Luverne Facility, that may be required by future customers;
- the costs involved in increasing production capacity of our products, including at the Luverne Facility;
- 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 products 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 products we produce, and the timing and terms of those agreements, including terms related to sales price;
- our ability to negotiate sales of our products 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 the 2020 Notes. 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 build out additional isobutanol and hydrocarbon capacity;
- our plans to operate our ethanol plant;
- our production of products at the Luverne Facility;
- our production of hydrocarbons at the demonstration plant located at the South Hampton facility near Houston, Texas, or any other future facilities;
- our efforts to prepare, file, prosecute, maintain and enforce patent, trademark and other intellectual property rights and defend against claims by others that we may be violating their intellectual property rights; and/or
- our activities in developing storage capacity and negotiating supply agreements that may be necessary for the commercialization of our products.

We may need to cease production at the Luverne Facility due to the condition of two of our fermentation vessels, unless repaired.

As an older production facility, the Luverne Facility is more susceptible to maintenance issues that result in production challenges than newer production facilities. In the second quarter of 2017, we hired a third-party engineering firm to test the structural integrity of two of our oldest fermentation vessels. These fermentation vessels are fabricated from carbon steel and are dedicated to ethanol production. Currently it is estimated that these two fermentation vessels likely have approximately one year and two months, respectively, of useful life remaining under the current operating strategy unless they are replaced or repaired. The cost to repair these fermenters is estimated at $250,000 each. If we did not repair at least one of these fermenters in the next 12 months, it is possible we may have to shut down ethanol production until repaired. If we were to shut down ethanol production, neither could we produce isobutanol. Any such production stoppages or costs incurred to repair or replace such vessels could have a material adverse effect on our business, financial condition and results of operations.

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

From time-to-time, we agree to preliminary terms regarding supplying isobutanol or the products derived from it to various companies for their use or further distribution. 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 the planned expansion of the Luverne Facility, 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.

The Luverne Facility is our first commercial ethanol and isobutanol production facility, and, as such, we may be unable to produce planned quantities of ethanol and isobutanol and any such production may be costlier than we anticipate.

Since commencing initial startup operations for the production of isobutanol at the Luverne 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 production of isobutanol at the Luverne 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 add additional processing steps or incur additional capital expenditures to achieve our target customers' product specifications and/or to increase production levels at the facility.

The Luverne Facility has the capability, with certain capital improvements, to produce low-carbon ethanol side-by-side with low-carbon isobutanol, in addition to renewable jet fuel and isooctane and other related products that can be made from isobutanol. Furthermore, by investing additional capital at the Luverne Facility, we believe that we can lower the carbon intensity (i.e. lower the carbon dioxide emissions from the plant) creating additional profit margin opportunities in low-carbon markets for ethanol, as well as for our isobutanol and its derivative hydrocarbon products. However, we cannot assure you that we will be able to secure adequate financing to make such improvements or that our capital investments at the Luverne Facility will successfully lower the carbon intensity and/or create additional profit margin opportunities.

In addition, the Luverne Facility was constructed in 1998. As an older production facility, the Luverne Facility may be more susceptible to maintenance issues that result in production challenges than newer production facilities. 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 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.

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 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 Luverne Facility uses significant amounts of natural gas to produce 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.

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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 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 Luverne Facility during any period in which the production of isobutanol is temporarily paused and our management decides that the Luverne Facility will be temporarily reverted to ethanol production, or during periods in which we produce both isobutanol and ethanol 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 sell the iDGs that are 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 produced limited quantities of 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 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 Luverne Facility, the other third-party ethanol production facilities we access can continue to produce ethanol during most of the Retrofit process. In certain cases, we may obtain income from this ethanol production. Further, we have designed our isobutanol production technology (including the Retrofit of the Luverne 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.

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 Luverne 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 unfavorable 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 Luverne 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 Luverne Facility even if margins improve. In addition, any reduction or suspension of the production of ethanol and/or isobutanol at the Luverne Facility may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

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We may not be successful in the development of individual steps in the production of commercial quantities of low-carbon ethanol or isobutanol from plant feedstocks in a timely or economic manner, or at all.

As of the date of this prospectus supplement, we have not produced any low-carbon ethanol and we have produced only limited quantities of isobutanol at commercial scale. We may not be successful producing low-carbon ethanol and we may not be successful in increasing our production of isobutanol from these limited production levels.

Our future success depends on our ability to produce commercial quantities of low-carbon ethanol and isobutanol in a timely and economic manner. While we have produced isobutanol using our biocatalysts at the Luverne Facility in commercial-scale fermenters, our biocatalysts have not yet produced isobutanol at fully optimized levels in fermenters typical of full scale operation at a commercial facility. The risk of contamination and other problems rises 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.

The technological and logistical challenges associated with producing, marketing, selling and distributing low-carbon ethanol and 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.

Prior to our purchase of the Luverne Facility, we had never operated or built (through Retrofit or otherwise) a commercial ethanol or isobutanol facility. We believe that we understand the engineering and process characteristics necessary to successfully build the additional facilities that we are contemplating and to scale up to larger facilities. We expect to incur additional capital expenditures to produce low-carbon ethanol and increase low-carbon ethanol and isobutanol production levels at the Luverne Facility. Our assumptions, however, may prove to be incorrect. Accordingly, we cannot be certain that we can consistently produce low-carbon ethanol and isobutanol in an economical manner in commercial quantities. If our costs to build a commercial facility to produce low-carbon ethanol and/or to increase isobutanol production are significantly higher than we expect or if we fail to consistently produce low-carbon ethanol and/or isobutanol economically on a commercial scale or in commercial volumes, our commercialization of low-carbon ethanol, isobutanol and our business, financial condition and results of operations will be materially adversely affected.

We have entered into a licensing agreement with Porta Hnos S.A. ("Porta") to Retrofit their facility in Argentina, and the production of isobutanol at the Porta facility could be delayed and, as a result, any royalties or other revenues expected to be derived from the licensing agreement may be delayed.

In January 2016, we entered into a license agreement and joint development agreement with Porta to construct multiple isobutanol plants in Argentina using corn as a feedstock, the first of which is expected to be wholly owned by Porta (the "Porta Facility"). The plant is expected to have a production capacity of up to five million gallons of isobutanol per year. Once the plant is operational, Gevo expects to generate revenues from this licensing arrangement, through royalties, sales and marketing fees, and other revenue streams such as yeast sales. The agreements also contemplate Porta constructing at least three additional isobutanol plants for certain of their existing ethanol plant customers. For these projects, Gevo would be the direct licensor of its technology and the marketer for any isobutanol produced, and would expect to receive all royalties and sales and marketing fees generated from these projects. Porta would provide the engineering, procurement and construction ("EPC") services for the projects. The production capacity of these additional plants is still to be determined.

Although we will be able to apply our experience from the Retrofit of the Luverne Facility, no two ethanol facilities are exactly alike, and each Retrofit or construction project will require individualized engineering and design work. Unexpected difficulties unique to the Porta Facility may cause delays in commencing production, and there is no guarantee that we will be successful in properly completing the project. Any such unexpected difficulties could delay or limit the revenues that we are able to derive from the licensing arrangement with Porta. Moreover, there can be no assurances that the Retrofit of the Porta facility will ever be completed or Porta will construct other isobutanol plants as contemplated. If the Porta Facility project is not completed or if Porta does not construct additional isobutanol facilities, Gevo will not generate any revenue. In addition, if Porta experiences delays or is unsuccessful in completing the Porta Facility project, this may limit our ability to license its technology to others, which could reduce the scope of our business plan and have a material adverse effect on our results of operations. In addition, if we experience delays or are unsuccessful in completing the Porta Facility project, this may limit our ability to license our technology to others, which could reduce the scope of our business plan and have a material adverse effect on our results of operations.

Our development strategy relies on our relationships with partners such as Praj Industries Limited ("Praj") and Porta.

In November 2015, we entered into a joint development agreement and a development license agreement with Praj with the goal for Praj to adapt our isobutanol technology to using non-corn based sugars and lignocellulose feedstocks. Praj is one of the leading suppliers of EPC services to the ethanol industry globally, having provided such services to approximately 350 ethanol plants across 65 countries. As a result, we believe that our alliance with Praj will allow us to more quickly achieve commercial-scale production of isobutanol derived from feedstock outside of the U.S. Porta is a leading supplier of EPC services to the ethanol industry in South America. As a result, we believe that our alliance with Porta will allow us to more quickly achieve commercial-scale production of isobutanol in Argentina and potentially elsewhere in South America. However, Praj and Porta may fail to fulfill their obligations to us under our agreements with them such as failing to meet milestones associated with our joint development agreement. If Praj and Porta fail to fulfill their obligations to us under our agreements, our ability to realize continued development and commercial benefits from our alliance could be affected and our business and prospects could be harmed.

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In addition, we may be unable to secure other partners beyond Praj and Porta to assist us in developing commercial isobutanol projects globally. If we are unable to secure such additional partnerships, our business and prospects could be harmed.

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

Some or all of our future production facilities 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.

Even if we secure access to sufficient volumes of feedstock, our production facilities may fail to perform as expected. The equipment and subsystems that we install in our production facilities may never operate as planned. Our systems may prove incompatible with the original facility, or require additional modification after installation. 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, ATJ or other products in accordance with customer specifications.

Even if we produce isobutanol, ATJ or other products at our targeted rates, we may be unable to produce these products to meet customer specifications, including those defined in ASTM D7862 “Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark-Ignition Engine Fuel” or ASTM D7566 “Standard Specifications for Aviation Turbine Fuel Containing Synthesized Hydrocarbons.” 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. 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 concurrently. Accordingly, we may encounter significant difficulties operating at a commercial scale once both production facilities are built out in a side-by-side operation. We believe that our future facilities will, like the Luverne Facility, be able to continue producing ethanol during much of the Retrofit process. We will need to successfully administer and manage this production. Although the employees at the Luverne Facility 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 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.

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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 Luverne 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 reached all performance targets in a commercial plant environment at the larger scale we contemplate constructing involving multiple fermenters. Ultimately, our yeast biocatalyst may not be able to meet the commercial performance targets 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 or require additional capital expenditures to solve for these problems. 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 ethanol, isobutanol and other hydrocarbon products to customers, including chemical producers, fuel distributors and refiners.

A key component of our business strategy to become profitable is to invest capital to upgrade the Luverne Facility to primarily produce low-carbon ethanol for the California market, and a key component of our business strategy is to market our isobutanol and other hydrocarbon products to chemical producers, fuels distributors, refiners and other fuel and chemical industry market participants. We have no experience marketing ethanol to the California market or 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 ethanol to the California market or isobutanol to refiners, fuels distributors, chemical producers and others, 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 potentially 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, may 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.

A very limited 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 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 growth rate could be materially and adversely affected.

We believe that consumer demand for environmentally sensitive products will drive demand among large brand owners for low-carbon ethanol, isobutanol and renewable hydrocarbon sources. One of our marketing strategies is to leverage this demand to obtain commitments from large brand owners to purchase our products. We believe these commitments will, in turn, promote chemicals industry demand for our isobutanol and hydrocarbon products. 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 isobutanol or hydrocarbons, our revenue and growth rate could be materially and adversely affected.

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We may have difficulties scaling up our hydrocarbon technology, and, as such, we may be unable to produce commercial quantities of our hydrocarbons, and any such production may be costlier than we anticipate

We have developed a hydrocarbon processing plant (the "Silsbee Facility") in Silsbee, Texas, in partnership with South Hampton Resources, Inc. Currently, the Silsbee Facility can process approximately 6,000 to 7,000 gallons of our isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals. We have demonstrated the ability to convert our isobutanol at this level into products such as ATJ, isooctane, isooctene and par-xylene.

The production and sale of commercial volumes of hydrocarbons such as ATJ, isooctane and isooctene, produced from our isobutanol is anticipated to be an important part of our future business plans. However, we may encounter challenges in scaling up our process to convert isobutanol into hydrocarbon products successfully. In addition, the cost to construct commercial hydrocarbons facilities or the production costs associated with the operation of such facilities may be higher than we project. If we encounter such difficulties, this may significantly impact the development of the markets for our hydrocarbon products and could significantly affect our profitability.

We may be reliant on Butamax to develop certain markets for isobutanol.

As part of the License Agreement entered into with Butamax, it was agreed that Butamax would take the lead in developing the markets for on-road gasoline blendstocks. This would entail progressing the required approvals for these markets, as well as managing the marketing and distribution of our isobutanol and our potential licensee's isobutanol in these markets beyond certain minimum volumes. On June 12, 2018, the EPA announced that it approved the registration of isobutanol as a fuel additive for blending into gasoline at levels up to 16 volume percent for on-road automotive use. If Butamax is unable to maintain or obtain the necessary approvals to sell isobutanol into the on-road gasoline blendstock markets, or if it is unsuccessful in building market demand for isobutanol as an on-road gasoline blendstock, our revenue and growth rate could be materially and adversely affected.

We may be required to pay Butamax royalties for selling isobutanol into certain markets, which could hinder our ability to competitively sell our isobutanol into those markets.

As part of the License Agreement entered into with Butamax, it was agreed that we, and our potential licensees, may be required to pay Butamax royalties for selling isobutanol into the on-road gasoline blendstock markets and the chemical isobutylene applications markets beyond certain minimum volumes. The addition of these royalties may make our isobutanol uncompetitive from a price perspective, which may hinder our ability to sell into these markets. If this is the case, our revenue and growth rate could be materially and adversely affected.

Even if we are successful in consistently producing low-carbon ethanol, isobutanol and our hydrocarbon products 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 and other products we produce. Certain agreements with existing and potential customers may initially only provide for the purchase of limited quantities from us. For example, our agreement with Alaska Airlines entered into in May 2015 provides for the initial purchase of a limited quantity of our ATJ fuel, and does not obligate Alaska Airlines to purchase any additional quantity of jet fuel in addition to the amount to be initially purchased. Our ability to increase our sales will depend in large part upon our ability to expand these existing customer relationships into long-term supply agreements. Maintaining and expanding our existing relationships and establishing new ones can require substantial investment without any assurance from customers that they will place significant orders. In addition, 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, 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 low-carbon ethanol, isobutanol and our hydrocarbon products on a commercial scale, we may not be successful in negotiating pricing terms sufficient to generate positive results from operations at the Luverne 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 negotiate pricing terms for the low-carbon ethanol, isobutanol and other products we produce that generate positive results from the operations of the Luverne 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.

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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.

A sustained low oil price environment may negatively impact the price we receive for the sale of our ethanol, isobutanol and hydrocarbon products.

Many of our end-products such as isobutanol, ethanol and hydrocarbon products have some level of price correlation with crude oil. If crude oil prices were to remain at low levels over a sustained period of time, this may have an impact on the pricing that we are able to achieve in the marketplace for many of those end-products. This may cause us to operate at a lower, or negative, operating margins and, as a result, our management may decide to reduce or suspend production of ethanol and/or isobutanol at the Luverne Facility. Unfavorable operating margins may also impact our ability to enter into commercial agreements with development partners or licensees.

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 may 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:

issue additional equity securities which would dilute our current stockholders;

incur substantial debt to fund the acquisitions; or

assume significant liabilities.

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 Luverne, 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 may 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.

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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.

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 a leading marketer for all isobutanol and co-products produced using our proprietary technology and sold in markets other than on-road gasoline blendstocks 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 a leading 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, make it more difficult to pursue partnerships or develop our own products or otherwise have a material adverse effect on our business.

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 departure, illness or absence 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. All of our employees are at-will employees, meaning that either the employee or we may terminate their employment at any time.

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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.

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 our operating costs 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 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 from companies with greater resources and financial strength which could adversely affect our performance and growth.

We may face substantial competition in the markets for ethanol, isobutanol, 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.

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.

Our future success will depend on our ability to maintain a competitive position with respect to technological advances.

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.

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We may face significant and substantial competition as it relates to our proprietary biofuels which could adversely affect our performance and growth.

In the ethanol market, we operate in a highly competitive industry in the U.S. According to the Renewable Fuels Association, there are over 200 ethanol facilities in the U.S. with an installed nameplate capacity of almost 15 billion gallons. Some of the key competitors in the U.S. include Archer-Daniels-Midland Company, Green Plains, Inc., POET, LLC and Valero Energy Corporation. 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 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. and Eastman Chemical Company (which acquired TetraVitae Bioscience, Inc. in November 2011) are developing n-butanol production capability from a variety of renewable feedstocks.

In the gasoline blendstock market, we will compete with our isobutanol against 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. 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, including our hydrocarbon products, key competitors include Shell Oil Company, BP, Neste Corporation, Altair Engineering, Inc., Fulcrum Bioenergy, Inc., Red Rocks Biofuels LLC, POET, LLC, ICM, Inc., Mascoma Corporation, Inbicon A/S, INEOS New Planet BioEnergy LLC, Archer Daniels Midland Company, BlueFire Renewables, Inc., Iogen Corporation, 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. Many other competitors may do so as well. In the jet fuel market, we will face competition from companies such as Synthetic Genomics, 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 vegetable oils and animal fats. Red Rock Biofuels LLC and others are planning to produce jet fuel 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., Renewable Energy Group, Inc., Fulcrum Bioenergy, Inc., Neste Corporation and Altair Engineering, Inc., have developed technologies for production of alternative hydrocarbon diesel fuel.

Our competitive position in the polyester, rubber, plastics, fibers and other polymers markets versus the incumbent petroleum-derived products and other renewable butanol producers may not be favorable.

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 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 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.

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In the polyester, rubber, plastics, fibers and other polymers markets, 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 will 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 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.

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.

Our business and operations would suffer in the event of system failures.

Despite the implementation of security measures, our internal computer systems are vulnerable to damage from computer viruses, human error, unauthorized access, natural disasters, intentional acts of vandalism, terrorism, war and telecommunication and electrical failures. Any system failure, accident or security breach that causes interruptions in our operations could result in a material disruption of our business. To the extent that any disruption or security breach results in a loss or damage to our data or inappropriate disclosure of confidential or proprietary information, we may incur liability, reputation damage and harm to our business operations.

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

We have historically 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, could limit or prevent the use of our products, processes and technologies and limit our revenues.

Some of our processes involve the use of genetically engineered organisms or genetic engineering technologies. Additionally, our feedstocks may be grown on land that could be used for food production, which subjects our feedstock sources to "food versus fuel" concerns. If we are not able to overcome the ethical, legal and social concerns relating to genetic engineering or food versus fuel, our products and processes may not be accepted. Any of the risks discussed below could result in increased expenses, delays or other impediments to our programs or the public acceptance and commercialization of products and processes dependent on our technologies or inventions.

Our ability to develop and commercialize one or more of our technologies, products, or processes could be limited by the following factors:

- public attitudes about the safety and environmental hazards of, and ethical concerns over, genetic research and genetically engineered products and processes, which could influence public acceptance of our technologies, products and processes;

- public attitudes regarding and potential changes to laws governing ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage others from supporting, developing or commercializing our products, processes and technologies;

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public attitudes and ethical concerns surrounding production of feedstocks on land which could be used to grow food, which could influence public acceptance of our technologies, products and processes;

governmental reaction to negative publicity concerning genetically engineered organisms, which could result in greater government regulation of genetic research and derivative products; and

governmental reaction to negative publicity concerning feedstocks produced on land which could be used to grow food, which could result in greater government regulation of feedstock sources.

The subjects of genetically engineered organisms and food versus fuel have received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically engineered products or feedstocks grown on land suitable for food production.

The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may be exposed to liability for any resulting harm.

As isobutanol has not previously been used as a commercial fuel in significant amounts, its use subjects us to product liability risks.

Isobutanol has not been used as a commercial fuel in large quantities or for a long period of time. Research regarding isobutanol and its distribution infrastructure is ongoing. Although isobutanol has been tested on some engines, there is a risk that it may damage engines or otherwise fail to perform as expected. If isobutanol degrades the performance or reduces the lifecycle of engines, or causes them to fail to meet emissions standards, market acceptance could be slowed or stopped, and we could be subject to product liability claims. A significant product liability lawsuit could substantially impair our production efforts and could have a material adverse effect on our business, reputation, financial condition and results of operations.

We may not be able to use some or all of our net operating loss carry-forwards to offset future income.

We have net operating loss carryforwards due to prior period losses generated before January 1, 2018, which if not utilized will begin to expire at various times over the next 20 years. If we are unable to generate sufficient taxable income to utilize our net operating loss carryforwards, these carryforwards could expire unused and be unavailable to

offset future income tax liabilities.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an "ownership change" (generally defined as a greater than 50% change (by value) in its equity ownership over a three-year period) is subject to limitation on its ability to utilize its pre-change net operating loss carry-forwards, or net operating losses, to offset future taxable income. We may have experienced one or more ownership changes in prior years, and the issuance of shares in connection with our initial public offering may itself have triggered an ownership change. In addition, future changes in our stock ownership, which may be outside of our control, may trigger an ownership change, as may future equity offerings or acquisitions that have equity as a component of the purchase price. If an ownership change has occurred or does occur in the future, our ability to utilize our net operating losses to offset income if we attain profitability may be limited.

If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock.

Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 ("Section 404") requires us to evaluate and report on our internal control over financial reporting and have our principal executive officer and principal financial officer certify as to the accuracy and completeness of our financial reports. The process of maintaining our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention of management. We cannot be certain that these measures will ensure that we maintain adequate controls over our financial processes and reporting in the future. Even if we conclude that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, because of their inherent limitations, our internal controls over financial reporting may not prevent or detect fraud or misstatements. Failure to maintain required controls or implement new or additional controls as circumstances warrant, or difficulties encountered in maintaining or implementing controls, could harm our results of operations or cause us to fail to meet our reporting obligations.

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Our management has concluded that there are no material weaknesses in our internal controls over financial reporting as of December 31, 2017. However, there can be no assurance that our controls over financial processes and reporting will be effective in the future or that additional material weaknesses or significant deficiencies in our internal controls will not be discovered in the future. If we, or our independent registered public accounting firm, discover a material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and harm our stock price. In addition, a delay in compliance with Section 404 could subject us to a variety of administrative sanctions, including SEC action, ineligibility for short form resale registration, the suspension or delisting of our common stock from the stock exchange on which it is listed and the inability of registered broker-dealers to make a market in our common stock, which would further reduce our stock price and could harm our business.

We may enter into letters of intent, memoranda of understanding and other largely non-binding agreements with potential customers or partners that may not result in legally binding, definitive agreements.

From time to time, we may enter into letters of intent, memoranda of understanding and other largely non-binding agreements or understandings with potential customers or partners in order to develop our business and the markets that we serve. We can make no assurance that legally binding, definitive agreements reflecting the terms of such non-binding agreements will be completed with such customers or partners, or at all.

Competitiveness of our products for fuel use in the U.S. depends in part on the United States Renewable Fuel Standard Program or RFS Program at the federal level, and the benefits to our products derived from the RFS Program could change.

The RFS Program and policy are currently being discussed by policy makers. The RFS Program and policy could change impacting the RIN benefits our products could receive, making our products less competitive to the incumbent products made from petroleum.

We may not qualify for significant carbon value benefit in those states, regions, and countries where renewable carbon value in fuel products is being assigned.

The possibility exists that our products may not qualify for benefits of the Low Carbon Fuel Standard Program (LCFS) in California or similar programs in other states and countries. Failure of our products to qualify for LCFS or other similar programs could have a material adverse effect on our business.

Risks Related to Intellectual Property

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.

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.

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 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 processes for producing ethanol and 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.

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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. We cannot assure you that we will ultimately prevail if any of this third-party intellectual property is asserted against us.

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. We own rights to hundreds of 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 some 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 handed down by the Federal Circuit Court 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. Currently, one of our issued patents is 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 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.

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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. 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.

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.

During the ordinary course of business, we may become subject to lawsuits or indemnity claims, which could materially and adversely affect our business and results of operations.

From time to time, we may in the ordinary course of business be named as a defendant in lawsuits, claims and other legal proceedings. These actions may seek, among other things, compensation for alleged personal injury, worker's compensation, employment discrimination, breach of contract, property damages, civil penalties and other losses of injunctive or declaratory relief. In the event that such actions or indemnities are ultimately resolved unfavorably at amounts exceeding our accrued liability, or at material amounts, the outcome could materially and adversely affect our reputation, business and results of operations. In addition, payments of significant amounts, even if reserved, could adversely affect our liquidity position.

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, and, particularly as we move forward in our partnerships with Porta, Praj, and future international partners, we may face new and increased risks and challenges in protecting and enforcing our intellectual property rights abroad. 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.

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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 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.

Risks Related to Legal and Regulatory

We may face substantial delays in obtaining regulatory approvals for use of our isobutanol and hydrocarbon products 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. On June 12, 2018, the EPA announced that it approved the registration of isobutanol as a fuel additive for blending into gasoline at levels up to 16 volume percent for on-road automotive use. There can be no assurances that the EPA registration of isobutanol as a fuel additive for blending into gasoline at levels up to 16 volume percent will not be revoked or changed. Nor does approval by the EPA of 16 volume percent blends mitigate other rules that may exist that have to be overcome for main market adoption (rather than a specialty market) regarding blending of isobutanol in gasoline. For example the issue of Product Transfer Documents for Blendstock for Oxygenate Blending in common blending tanks served by multiple suppliers, needing to be labeled to accept isobutanol.

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 low-carbon ethanol or 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.

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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.

Jet fuels must meet various statutory and regulatory requirements before they may be used in commercial aviation, including regulations of the Federal Aviation Administration ("FAA") and specifications determined by ASTM International. Currently, our renewable jet fuel meets the FAA regulations and the ASTM International specifications. However, changes to applicable regulations and specifications.in the future might have a material adverse effect on our business if such changes resulted in our renewable jet fuel not being eligible for use in commercial aviation.

Our isobutanol and hydrocarbon products 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 is 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. On June 12, 2018, the EPA announced that it approved the registration of isobutanol as a fuel additive for blending into gasoline at levels up to 16 volume percent for on-road automotive use. There can be no assurances that the EPA registration of isobutanol as a fuel additive for blending into gasoline at levels up to 16 volume percent will not be revoked or changed. 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.

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.

Our Luverne Facility and many of the ethanol plants that we might Retrofit use dry-milled corn as a feedstock. 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 the self-assessed Generally Regarded as Safe ("GRAS") process of the U.S. Federal Drug Administration (the "FDA") via third party scientific review. In order to improve the value of our iDGs, we are working with The Association of American Feed Control Officials ("AAFCO") to establish a formal definition for our iDGs as well as clearance for the materials into animal feed. We believe obtaining AAFCO 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 certain 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. While we believe we can rely on the GRAS process, as we update our biocatalysts to increase isobutanol production, for further customer assurance, we also intend to pursue approval upon a completed biocatalyst from the Center for Veterinary Medicine of the FDA. FDA testing and approval can take a significant amount of time, and there is no guarantee that we will ever receive such approval. While we have sold initial quantities of our iDGs TM from the Luverne Facility, if FDA or AAFCO 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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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. 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 Renewable Fuel Standard 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.

The recent U.S. elections could lead to changes in federal or state laws and regulations that could have a material adverse effect on our business, prospects, financial condition and results of operations.

We use hazardous materials in our business and we must comply with environmental laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance with applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

Our research and development processes involve the use of hazardous materials, including chemical, radioactive and biological materials. Our operations also produce hazardous waste. We cannot eliminate entirely the risk of accidental contamination or discharge and any resultant injury from these materials. Federal, state and local laws and regulations govern the use, manufacture, storage, handling and disposal of, and human exposure to, these materials. We may be sued for any injury or contamination that results from our use or the use by third parties of these materials, and our liability may exceed our total assets. Although we believe that our activities conform in all material respects with environmental laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present, or future laws could result in the imposition of fines, third-party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business.

Our expanded international activities may increase our exposure to potential liability under anti-corruption, trade protection, tax and other laws and regulations.

In the course of our relationships with Praj, Porta and future international partners, we may become subject to certain foreign tax, environmental, and health and safety regulations that did not previously apply to us or our products. Such regulations may be unclear, not consistently applied and subject to sudden change. Implementation of compliance policies could result in additional operating costs, and our failure to comply with such laws, even inadvertently, could result in significant fines and/or penalties.

Additionally, the Foreign Corrupt Practices Act and other anti-corruption laws and regulations (“Anti-Corruption Laws”) prohibit corrupt payments by our employees, vendors or agents. Even with implementation of policies, training and internal controls designed to reduce the risk of corrupt payments, our employees, vendors or agents may violate our policies. Our international partnerships may significantly increase our exposure to potential liability. Our failure to comply with Anti-Corruption Laws could result in significant fines and penalties, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation.

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USE OF PROCEEDS

We intend to use the net proceeds from this offering to fund working capital and for other general corporate purposes, which may include the repayment of outstanding indebtedness.

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.

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DESCRIPTION OF OUR COMMON STOCK

Authorized and Outstanding Capital Stock

Our authorized capital stock consists of 250,000,000 shares of common stock, par value $0.01 per share, and 10,000,000 shares of preferred stock, par value $0.01 per share, issuable in one or more series designated by our board of directors. As of June 28, 2018, there are 4,622,581 shares of common stock (after giving effect to the Reverse Stock Split) and no shares of preferred stock outstanding.

The material terms and provisions of our common stock and each other class of our securities which may qualify or limit the rights and privileges of our common stock are described under the caption “Description of Capital Stock” in the accompanying prospectus.

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MATERIAL UNITED STATES FEDERAL INCOME TAX CONSEQUENCES

The following is a summary of the material U.S. federal income tax consequences of the acquisition, ownership and disposition of shares of our common stock.

Scope of this Summary

This summary is for general information purposes only and does not purport to be a complete analysis or listing of all potential U.S. federal income tax consequences of the acquisition, ownership and disposition of shares of our common stock. Except as specifically set forth below, this summary does not discuss applicable tax reporting requirements. In addition, this summary does not take into account the individual facts and circumstances of any particular holder that may affect the U.S. federal income tax consequences to such holder.

Accordingly, this summary is not intended to be, and should not be construed as, legal or tax advice with respect to any particular holder. Each holder should consult its own tax advisors regarding the U.S. federal, state and local, and non-U.S. tax consequences of the acquisition, ownership and disposition of shares of our common stock.

No legal opinion from U.S. legal counsel or ruling from the Internal Revenue Service (the "IRS") has been requested, or will be obtained, regarding the U.S. federal income tax consequences of the acquisition, ownership and disposition of shares of our common stock. This summary is not binding on the IRS, and the IRS is not precluded from taking a position that is different from, or contrary to, the positions taken in this summary.

Authorities