Gevo, Inc.
Form 10-K
February 28, 2012
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UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

Form 10-K

(Mark One)

x **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the fiscal year ended December 31, 2011

or

¨ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
Commission file number: 001-35073

Gevo, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**87-0747704**
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification No.)
345 Inverness Drive South, Building C, Suite 310,	**80112**

Englewood, CO
(Address of Principal Executive Offices) (Zip Code)

(303) 858-8358

(Registrant s telephone number, including area code)

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

Title of Each Class	**Name of Each Exchange on Which Registered**
Common Stock, par value $0.01 per share	NASDAQ Global Market

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

None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ¨ No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ¨ No x

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes x No ¨

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of the registrant s knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. x

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	x (Do not check if a smaller reporting company)	Smaller reporting company	¨

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ¨ No x

The aggregate market value of the voting stock held by non-affiliates of the registrant, based on the closing sale price of the common stock on June 30, 2011 was approximately $119 million. Shares of common stock held by each officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the registrant s common stock, par value $0.01 per share, as of January 31, 2012 was 26,460,750.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of Part II of this Annual Report on Form 10-K and Items 10, 11, 12, 13 and 14 of Part III of this Annual Report on Form 10-K incorporate information by reference from the registrant s definitive proxy statement to be filed pursuant to Regulation 14A in connection with the registrant s 2012 Annual Meeting of Stockholders or an amendment to this Annual Report on Form 10-K to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year covered by this Annual Report on Form 10-K.

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GEVO, INC.

FORM 10-K ANNUAL REPORT

For the Fiscal Year Ended December 31, 2011

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Forward-Looking Statements

When used anywhere in this Annual Report on Form 10-K (this Report), the words expect, believe, anticipate, estimate, intend, plan a expressions are intended to identify forward-looking statements. These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievement to differ materially from those expressed or implied by these forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. Such statements are subject to certain risks and uncertainties including those related to the achievement of advances in our technology platform, the success of our retrofit production model, our ability to gain market acceptance for our products, additional competition, changes in economic conditions, and those described in documents we have filed with the Securities and Exchange Commission (the SEC), including this Report in Management s Discussion and Analysis of Financial Condition and Results of Operations, Risk Factors and subsequent reports on Form 10-Q. All forward-looking statements in this document are qualified entirely by the cautionary statements included in this document and such other filings. These risks and uncertainties could cause actual results to differ materially from results expressed or implied by forward-looking statements contained in this document. These forward-looking statements speak only as of the date of this document. We disclaim any undertaking to publicly update or revise any forward-looking statements contained herein to reflect any change in our expectations with regard thereto or any change in events, conditions or circumstances on which any such statement is based. Unless the context requires otherwise, in this report the terms we, us and our refer to Gevo, Inc. and its wholly owned or indirect subsidiaries, and their predecessors.

This Report contains estimates and other information concerning our target markets that are based on industry publications, surveys and forecasts, including those generated by SRI Consulting, a division of Access Intelligence, LLC (SRI), Chemical Market Associates, Inc. (CMAI), the US Energy Information Association (the EIA), the International Energy Agency (the IEA), the Renewable Fuels Association (the RFA), and Nexant, Inc. (Nexant). Certain target market sizes presented in this report have been calculated by us (as further described below) based on such information. This information involves a number of assumptions and limitations. Although we believe the information in these industry publications, surveys and forecasts is reliable, we have not independently verified the accuracy or completeness of the information. The industry in which we operate is subject to a high degree of uncertainty and risk due to a variety of factors, including those described in Risk Factors. These and other factors could cause actual results to differ materially from those expressed in these publications, surveys and forecasts.

Conventions that Apply to this Report

With respect to calculation of product market volumes:

- product market volumes are provided solely to show the magnitude of the potential markets for isobutanol and the products derived from it. They are not intended to be projections of our actual isobutanol production or sales;
- product market volume calculations for fuels markets are based on data available for the year 2009 (the most current data available from the IEA);
- product market volume calculations for chemicals markets are based on data available for the year 2011 (the most current data available from Nexant); and
- volume data with respect to target market sizes is derived from data included in various industry publications, surveys and forecasts generated by the EIA, the IEA and Nexant.

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

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

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

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

- for consistency in measurement, where necessary we converted all market sizes into gallons.

Conversion into gallons for the fuels markets is based upon fuel densities identified by Air BP Ltd. and the American Petroleum Institute.

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PART I

Item 1. Business.

Company Overview

We are a renewable chemicals and next generation biofuels company. Our overall strategy is to commercialize biobased alternatives to petroleum-based products using a combination of synthetic biology and chemical technology. In order to implement this strategy, we are taking a building block approach. Initially, we intend to produce and sell isobutanol from renewable feedstocks. Isobutanol is a four carbon alcohol that can be sold directly for use as a specialty chemical in the production of solvents, paints, and coatings or as a value-added fuel blendstock. Isobutanol can also be converted into butenes using straightforward dehydration chemistry deployed in the refining and petrochemicals industries today. The convertibility of isobutanol into butenes is important because butenes are primary hydrocarbon building blocks used in the production of lubricants, rubber, plastics, fibers, other polymers and hydrocarbon fuels. We believe that the products derived from isobutanol have potential applications in approximately 40% of the global petrochemicals market, representing a potential market for isobutanol of approximately 70 billion gallons per year (BGPY), and substantially all of the global hydrocarbon fuels market, representing a potential market for isobutanol of approximately 900 BGPY. When combined with a potential specialty chemical market for isobutanol of approximately 1.1 BGPY, and a potential fuel blendstock market for isobutanol of approximately 40 BGPY, we believe that the potential global market for isobutanol is greater than 1,000 BGPY.

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

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology® (GIFT®), an integrated technology platform for the efficient production and separation of isobutanol. GIFT® consists of two components, proprietary biocatalysts which convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit which is designed to continuously separate isobutanol from water during the fermentation process. We developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity, as estimated by the RFA. GIFT® is designed to allow relatively low capital expenditure retrofits of existing ethanol facilities, enabling a rapid and cost-efficient route to isobutanol production from the fermentation of renewable feedstocks. We believe that our cost-efficient production route will enable rapid deployment of our technology platform and allow our isobutanol and the products produced from it to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

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

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Direct Use Markets

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

Specialty Chemicals

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

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

We estimate the total addressable world-wide market for isobutanol as a specialty chemical to be approximately 1.1 BGPY, or approximately $6.5 billion annually.

Gasoline Blendstocks

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

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

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

Butene and Hydrocarbon Markets

Beyond direct use as a specialty chemical and fuel blendstock, isobutanol can be converted into butenes, para-xylene (PX), and many hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand.

Butenes

Isobutanol can be dehydrated to produce butenes which have many industrial uses in the production of plastics, fibers, rubber and other polymers. The straightforward conversion of isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets.

Traditionally butenes have been produced as co-products from the process of cracking naptha in the production of ethylene. Reported reductions in the use of naptha as the feedstock for the production of ethylene have changed the projected menu of co-products, resulting in a projected reduction in the volume of available butenes. This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of butenes.

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

We estimate the total addressable world-wide market for butenes to be approximately 2.3 BGPY, or approximately $8.1 billion annually.

Para-xylene and Polyethylene Terephthalate

Isobutanol can be used to produce PX and its derivatives, including polyesters, which are used in the beverage and food packaging and fibers markets. PX is a key raw material in polyethylene terephthalate (PET) production.

In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray Industries, Inc. (Toray Industries). Working directly with Toray Industries, we employed prototypes of commercial operations from the petrochemical and refining industries to make PX from isobutanol. Toray Industries used our PX and commercially available renewable mono ethylene glycol (MEG) to produce fully renewable PET films and fibers. Toray Industries is a large PET resin, film and fiber manufacturing company interested in offering their customers, some of whom are multinational brandowners, with a biobased alternative.

We have also entered into an agreement with The Coca-Cola Company (Coca-Cola) to create renewable PET from our isobutanol seeking to accelerate the development of Coca-Cola s second-generation PlantBottle packaging made from 100% plant-based materials. Our objective under the agreement is to take our technology from laboratory-scale to commercial-scale and support Coca-Cola s efforts to lead the beverage industry away from fossil-fuel based packaging by offering an alternative made completely from renewable raw materials.

We estimate the global market for PET to be approximately 50 million metric tons, or approximately $90 billion annually. Approximately 30% of which will be used for plastic bottles.

Jet Fuel

We have demonstrated the conversion of our isobutanol into a renewable jet fuel blendstock which meets current ASTM International (ASTM) and U.S. military synthetic jet fuel blendstock performance and purity requirements. We are working to obtain an ASTM standard specification for the use of such jet fuel blendstock in commercial aviation. We have already presented positive test results from fit-for-purpose testing of our biojet fuel to ASTM s alcohol-to-jet task force. Upon reviewing the results of the test, which was conducted by the Southwest Research Institute and the U.S. Air Force Research Lab, the task force had no objection to our proceeding to jet engine testing, which is the next phase in the certification process. Full certification of our biojet fuel is expected in 2013.

We have been awarded a contract by the Defense Logistics Agency (DLA) to supply biojet fuel to the U.S. Air Force (USAF). The contract calls for us to supply the USAF with up to 11,000 gallons of biojet fuel, which will be used to support engine testing and a feasibility flight demonstration using an A-10 aircraft. The biojet fuel will be shipped to Wright-Patterson Air Force Base, where the USAF will finish laboratory testing and begin engine testing. The biojet fuel is being produced from isobutanol at our hydrocarbon processing demonstration plant near Houston, Texas, in partnership with South Hampton Resources, Inc. (South Hampton Resources). We shipped initial quantities of biojet fuel to the USAF in December 2011.

Commercial airlines are also currently looking to form strategic alliances with biofuels companies to meet their fuel supply demands.

We estimate the global market for biojet fuel to be approximately 75 BGPY, or approximately $200 billion annually.

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Other Hydrocarbon Fuels

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

Our Retrofit Strategy

We plan to commercialize our isobutanol through a strategy of retrofitting existing ethanol production facilities to produce isobutanol. This approach allows us to project substantially lower capital outlays and a faster commercial deployment schedule than the construction of new plants. We developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity and we believe that this retrofit approach will allow us to rapidly expand our isobutanol production capacity in response to customer demand. Additionally, the ability of GIFT® to convert sugars from multiple renewable feedstocks into isobutanol will enable us to leverage the abundant domestic sources of low cost grain feedstocks (e.g., corn) currently used for ethanol production and will potentially enable the expansion of our production capacity into international markets that use sugar cane or other feedstocks that are prevalent outside of the U.S.

We believe that our isobutanol not only offers a compelling value proposition to customers in the chemicals and fuels markets, but should also provide current ethanol plant owners with an opportunity to increase their operating margins through the retrofit of their existing facilities in joint venture settings. In addition, we plan to sell our isobutanol primarily under long term off-take agreements, such as our agreement with Sasol Chemical Industries, acting through its Sasol Solvents Division (Sasol). This approach, which is a departure from the traditional model for ethanol sales, is expected to enhance operating margin stability by incorporating minimum volume amounts and pricing terms that adjust based on feedstock costs, thus improving the overall business model for existing ethanol plant owners. Ethanol is often sold under marketing agreements that do not include volume requirements or pricing formulas that adjust based on feedstock costs, which can result in volatile operating margins that are a significant operational challenge for current ethanol plant owners.

Through our exclusive alliance with ICM, Inc. (ICM), a leading engineering firm that has designed over 50% of current U.S. operating ethanol production capacity, which the RFA estimates to be over 13 BGPY, we are developing our retrofit equipment package and have successfully demonstrated the production of isobutanol via the retrofit of a one million gallon per year (MGPY) ethanol demonstration facility in St. Joseph, Missouri. We plan to secure access to existing ethanol production facilities through joint ventures, tolling partnerships and direct acquisitions. As we establish our retrofit strategy, we may consider licensing our technology and engineering package to expand overall access to production capacity. We will then work with ICM to deploy GIFT® through retrofit of these production facilities.

In September 2010, we acquired a 22 MGPY ethanol production facility in Luverne, Minnesota (the Agri-Energy Facility). In partnership with ICM, we have developed a detailed design for this facility from which we can project equipment packages for the retrofit of other corn ethanol plants. We commenced the retrofit of the Agri-Energy Facility in 2011 and expect to begin commercial production of isobutanol at the facility in the first half of 2012. The Agri-Energy Facility is a traditional dry-mill facility, which means that it uses dry-milled corn as a feedstock. We project capital costs for the retrofit of the Agri-Energy Facility to be $22 million, which includes equipment necessary in order to switch between ethanol and isobutanol production plus additional capital which will be used to increase the potential production capacity of the facility. While we believe we will have the ability to reverse the retrofit and switch between ethanol and isobutanol production, there is no guarantee that this will be the case and it is not our intent to do so. In addition to the retrofit of the Agri-Energy Facility to produce isobutanol, in July 2011 we made the strategic decision to invest in an enhanced yeast seed train at the facility to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants, to maintain direct oversight over our yeast material and provide on-site yeast production. We estimate capital costs for the enhanced yeast seed train to be approximately $10 million. We do not anticipate installing an advanced yeast seed train at each future retrofit site.

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Additionally, on June 15, 2011, we entered into an isobutanol joint venture agreement (the Joint Venture Agreement) with Redfield Energy, LLC, a South Dakota limited liability company (Redfield), under which we have agreed to work with Redfield to retrofit Redfield s approximately 50 MGPY ethanol production facility located near Redfield, South Dakota (the Redfield Facility) for the commercial production of isobutanol. We will be responsible for all costs associated with the retrofit of the Redfield Facility. If certain conditions have been met following completion of retrofit, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date on which certain production targets have been met or the date the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable. We will be entitled to a percentage of Redfield s profits, losses and distributions once commercial production of isobutanol has begun.

We are currently in discussions with several other ethanol plant owners that have expressed an interest in entering into joint ventures, tolling arrangements or selling their facilities to us for retrofit to produce isobutanol. Collectively, these ethanol plant owners represent over 1.7 BGPY of ethanol capacity. However, there can be no assurance that we will be able to acquire access to ethanol plants from these owners.

Customer Agreements

We plan to commence commercial production of isobutanol in the first half of 2012 at our Agri-Energy Facility. We expect our initial production to be directed to serve the high-purity and chemical-grade markets under our international off-take and distribution agreement with Sasol, and to provide introductory volumes to the specialty fuel blendstock markets in the U.S., under our commercial off-take agreement with Mansfield Oil Company (Mansfield). During the retrofit of the Agri-Energy Facility, we will continue to produce and sell ethanol and related distiller s grains. Following the retrofit of the facility to isobutanol production, we intend to produce and sell isobutanol to customers and to sell isobutanol distiller s grains (iDGs) in the same manner as distiller s grains are sold today.

As our production capacity increases, we plan to transition to selling increased isobutanol volumes under direct customer relationships, certain of which we have already established. As of December 31, 2011, we have entered into the following arrangements:

Off-take Agreements

Sasol Chemical Industries. In July 2011, we entered into an international off-take and distribution agreement with Sasol to distribute isobutanol globally. The agreement has an initial term of three years and appoints Sasol as a worldwide distributor of our high-purity, chemical-grade biobased isobutanol for sale as a solvent or chemical intermediate. Sasol has been granted non-exclusive distribution rights in North and South America and exclusive distribution rights in the rest of the world. Upon our first commercial sale of isobutanol, if Sasol desires to maintain its exclusive distribution rights, it is obligated to either purchase certain minimum quantities of isobutanol or pay us applicable shortfall fees. We are also obligated to either supply Sasol with certain minimum quantities of isobutanol or pay Sasol applicable shortfall fees. The agreement includes a pricing mechanism that accounts for changes in corn feedstock costs, within certain market-based limits.

Mansfield Oil Company. In August 2011, we entered into a commercial off-take agreement with Mansfield to distribute isobutanol-based fuel into the petroleum market. Mansfield markets and distributes fuel to thousands of commercial customers across the U.S. and has over 900 supply points across the U.S. The agreement allows Mansfield to blend our isobutanol for its own use and to be a distributor of our isobutanol for a term of five years. We also entered into a three-year supply services agreement with C&N, a Mansfield subsidiary (C&N), which will provide supply chain services including logistics management, customer service support, invoicing and billing services.

Land O Lakes Purina Feed LLC. In December 2011, we entered into an off-take and marketing agreement with Land O Lakes Purina Feed LLC (Land O Lakes Purina Feed) for the sale of iDGs produced by the Agri-Energy Facility. Land O Lakes Purina Feed provides farmers and ranchers with

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an extensive line of agricultural supplies (feed, seed, and crop protection products) and services. Land O Lakes Purina Feed will be the exclusive marketer of our iDGs and modified wet distiller grains for the animal feed market. The agreement has an initial three-year term following the first commercial sales of iDGs with automatic one-year renewals thereafter unless terminated by one of the parties. Further, we plan to work with Land O Lakes Purina Feed to explore opportunities to upgrade the iDGs for special value-added applications in feed markets.

Supply and Commercialization Agreements

U.S. Air Force. In September 2011, we were awarded a solicitation by the DLA to supply biojet fuel to the USAF. DLA sources and provides nearly 100% of the consumable items the U.S. military needs to operate. The solicitation provides that we will supply the USAF with up to 11,000 gallons of biojet fuel, which will be used to support engine testing and a feasibility flight demonstration using an A-10 aircraft. This is the first biojet fuel contract awarded by the DLA. The biojet fuel is being produced from isobutanol at our hydrocarbon processing demonstration plant near Houston, Texas, in partnership with South Hampton Resources.

The Coca-Cola Company. In November 2011, we entered into a joint research, development, license and commercialization agreement with Coca-Cola to create renewable PX from our isobutanol. The objective of the agreement is to accelerate the development of Coca-Cola s second-generation PlantBottle packaging made from 100% plant-based materials. We will work with Coca-Cola to enable and deliver an integrated system to produce renewable PX, a key building block toward Coca-Cola s goal of creating all of their packaging from renewable materials.

LANXESS. In May 2010, we entered into a non-binding heads of agreement outlining the terms of a future supply agreement with LANXESS Inc. (LANXESS), an affiliate of LANXESS Corporation, a stockholder in our company. LANXESS is a specialty chemical company with global operations that currently produces butyl rubber from petrochemical-based isobutylene. Isobutylene is a type of butene that can be produced from isobutanol through straightforward, well-known chemical processes. Pursuant to the heads of agreement, LANXESS has proposed to purchase at least 20 MGPY of our isobutanol for an initial term of 10 years, with an option to extend the term for an additional five years. The pricing under our heads of agreement with LANXESS includes a mechanism that adjusts for future changes in the cost of our feedstock. In January 2011, we also entered into an exclusive supply agreement with LANXESS pursuant to which LANXESS has granted us an exclusive first right to supply LANXESS and its affiliates with certain of their requirements of biobased isobutanol during the initial ten-year term. Our exclusive first right to supply biobased isobutanol to LANXESS and its affiliates will be subject to the terms of the future supply agreement that we intend to enter into with LANXESS, as described above.

Letters of Intent

TOTAL PETROCHEMICALS. In February 2010, we entered into a non-binding letter of intent with TOTAL PETROCHEMICALS USA, Inc. (TOTAL PETROCHEMICALS), an affiliate of TOTAL S.A., a major oil and gas integrated company. Under the terms of the letter of intent, we have agreed to negotiate a definitive supply agreement, for a term of up to five years, for the sale of a specified amount of isobutanol to TOTAL PETROCHEMICALS for use as a second-generation biofuel. TOTAL PETROCHEMICALS anticipates that it will require a volume of isobutanol ranging from 5 to 10 million gallons during the first year of the agreement. After the first year, the parties will mutually agree upon a ramp-up schedule to increase the annual volume of isobutanol to be supplied by us over the remaining term of the agreement. TOTAL PETROCHEMICALS is affiliated with one of our stockholders, Total Energy Ventures International.

Toray Industries. In April 2010, we received a non-binding letter of interest from Toray Industries, a leader in the development of fibers, plastics and chemicals. Under the terms of the letter of interest, the parties have agreed to negotiate a supply agreement, pursuant to which, beginning on or after 2012,

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Toray Industries would purchase 1,000 metric tons per year of biobased PX made from our isobutanol, potentially building to 5,000 metric tons within five years. Production of 5,000 metric tons of PX is expected to require approximately 2.3 million gallons of isobutanol. In June 2011, we announced that we had successfully produced fully renewable and recyclable PET in cooperation with Toray Industries.

United Airlines. In July 2010, we entered into a non-binding letter of intent with United Airlines, Inc. (United Airlines), one of the largest international airlines in the world. This letter of intent sets forth the initial terms for a supply agreement for renewable jet fuel, produced from our isobutanol, to serve United Airlines major hub airport in Chicago. The letter of intent contemplates pricing of the renewable jet fuel will be indexed to the cost of corn, the feedstock that we will use to produce our isobutanol, and natural gas. Isobutanol has a higher price than ethanol today because of the higher value markets that isobutanol can serve. In addition, we have been successful in including pricing mechanisms that are linked to the cost of our feedstocks in certain key agreements, including our international off-take and distribution agreement with Sasol. This pricing mechanism allows us to reduce the risk of entering into long-term supply agreements for our isobutanol. We believe that our ability to enter into long-term agreements for the supply of isobutanol, with customer pricing linked to the cost of our feedstocks, provides us with an advantage over current ethanol marketing agreements.

Although we have agreed to preliminary terms with each of the potential customers discussed above, only our agreements with Sasol, Mansfield, Land O Lakes Purina Feed, Coca-Cola and the DLA on behalf of the USAF, and our exclusive supply agreement with LANXESS, are binding and there can be no assurance that we will be able to enter into definitive supply agreements with any of the other potential customers listed above, or attract customers based on our arrangements with the petrochemical companies and large brand owners discussed above.

Competitive Strengths

Our competitive strengths include:

Renewable platform molecule to serve multiple large drop-in markets. We believe that the butenes produced from our isobutanol will serve as renewable alternatives in the production of plastics, fibers, rubber and other polymers which comprise approximately 40% of the global petrochemicals market, and will have potential applications in substantially all of the global hydrocarbon fuels market, enabling our customers to reduce intermediate product cost volatility, diversify suppliers and improve feedstock security. We believe that we will face reduced market adoption barriers because products derived from our isobutanol are chemically identical to petroleum-derived products, except that they will contain carbon from renewable sources.

Proprietary, low cost technology with global applications. We believe that GIFT® is currently the only known biological process to produce isobutanol cost-effectively from renewable carbohydrate sources, which will enable the economic production of hydrocarbon derivatives of isobutanol. Our biocatalysts are able to achieve a product yield on sugar of approximately 94% of theoretical maximum by weight, which is near to, if not the maximum practical yield attainable from fermentable sugars. Collectively, we believe that these attributes, coupled with our ability to leverage the existing ethanol production infrastructure, will create a relatively low capital cost route to isobutanol. Furthermore, we believe that our cost-efficient production route will allow our isobutanol to be economically competitive with many of the petroleum-derived products used in the chemicals and fuels markets today. Additionally, GIFT® is designed to enable the economic production of isobutanol and other alcohols from multiple renewable feedstocks, which will allow our technology to be deployed worldwide.

Capital-light commercial deployment strategy optimized for existing infrastructure. We have designed GIFT® to enable capital-efficient retrofits of existing ethanol facilities, which allows us to leverage the existing approximately 23 BGPY of global operating ethanol production capacity. Our

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retrofit strategy supports a rapid and relatively low capital cost route to isobutanol production. In July 2011, ICM completed the detailed design for the Agri-Energy Facility retrofit to isobutanol production using GIFT®. Using a factored estimate based on the results of the detailed design, we estimate retrofit costs for grain ethanol plant retrofits to be approximately $1 per gallon of existing annual ethanol capacity. This projection translates to approximately $50 million for a 50 MGPY ethanol facility and approximately $90 million for a 100 MGPY ethanol facility. These projected retrofit capital expenditures are substantially less than estimates for new plant construction for the production of advanced biofuels, including cellulosic ethanol. We have also designed our production technology to minimize the disruption of ethanol production during the retrofit process, mitigating the costs associated with downtime as the plant is modified. Following an ICM-estimated two-week period to transition to isobutanol production, we expect the original plant to operate in essentially the same manner as it did prior to the retrofit, producing a primary product (isobutanol) and a co-product (iDGs). We are in the process of obtaining regulatory approvals for marketing of our iDGs as an animal feed, which will allow us to recover a significant portion of our feedstock costs.

GIFT® demonstrated at commercially relevant scale. We have completed the retrofit of a one MGPY ethanol facility in St. Joseph, Missouri with our proprietary engineering package designed in partnership with ICM and we have successfully produced isobutanol at this facility using our biocatalysts, achieving our commercial targets for concentration, yield and productivity, which are consistent with the current yeast performance observed in a grain ethanol plant. These operations have demonstrated the effectiveness of our proprietary technology, confirming the fermentation performance of our biocatalyst technology and our ability to effectively separate isobutanol from water as it is produced.

Off-take agreements and strategic relationships with chemicals, fuels, animal feed and engineering industry leaders in place. We have entered into off-take agreements and strategic relationships with global industry leaders to accelerate the execution of our commercial deployment strategy both in the U.S. and internationally. These agreements establish immediate demand for our isobutanol to meet the planned production from our Agri-Energy Facility, which is expected to commence commercial production in the first half of 2012. To facilitate the adoption of our technology at existing ethanol plants, we have entered into an exclusive alliance with ICM. We expect our relationships with entities such as LANXESS, Toray Industries, the USAF, TOTAL PETROCHEMICALS, and United Airlines to contribute to the development of new chemical and fuel market applications of our isobutanol. To enable the integration of cellulosic feedstocks into our isobutanol production process, we have obtained an exclusive license from Cargill, Incorporated (Cargill), to integrate its proprietary biocatalysts into the GIFT® system. To accelerate the adoption of isobutanol as a platform molecule and to support the development of hydrocarbon products derived from our isobutanol, we have developed a hydrocarbon demonstration plant near Houston, Texas with South Hampton Resources.

Experienced team with a proven track record. Our management team offers an exceptional combination of scientific, operational and managerial expertise and our CEO, Dr. Patrick Gruber, has spent over 20 years developing and successfully commercializing industrial biotechnology products. Across the company, our employees have 450 combined years of biotechnology, synthetic biology and biobased product experience. Our employees have generated over 300 patent and patent application authorships over the course of their careers. Our team members have played key roles in the commercialization of several successful, large-scale industrial biotechnology projects, including a sugar substitute sweetener, four organic acid technologies, an animal feed additive, monomers for plastics and biobased plastics and the first biologically derived high-purity monomer for the production of plastic at a world-scale production facility. As a result of their deep experience, members of our management team play important roles in the industrial biotechnology industry at U.S. and international levels.

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Our Production Technology Platform

We have used tools from synthetic biology, biotechnology and process engineering to develop a proprietary fermentation and separation process to cost effectively produce isobutanol from renewable feedstocks. GIFT® is designed to allow for relatively low capital expenditure retrofits of existing ethanol facilities, enabling a rapid and cost-efficient route to isobutanol production. GIFT® isobutanol production is very similar to existing ethanol production, except that we replace the ethanol producing biocatalyst with our isobutanol producing biocatalyst and we incorporate well-known equipment into the production process to separate and collect the isobutanol during the fermentation process. In July 2011, ICM completed the detailed design for the Agri-Energy Facility retrofit to isobutanol production using GIFT®. Using a factored estimate based on the results of the detailed design of the Agri-Energy Facility we estimate retrofit costs for grain ethanol plant retrofits to be approximately $1 per gallon of existing annual ethanol capacity. This projection translates to approximately $50 million for a 50 MGPY ethanol facility and approximately $90 million for a 100 MGPY ethanol facility. We have designed our production technology to minimize the disruption of ethanol production during the retrofit process, mitigating the costs associated with downtime as the plant is modified. Following an estimated two-week period to transition to isobutanol production, we expect the corn ethanol facility will be able to produce isobutanol, as well as iDGs , as an animal feed co-product, while operating in substantially the same manner as it did prior to the retrofit.

Reusing large parts of the ethanol plant without modification is beneficial because the unchanged parts will stay in place and continue to operate after the retrofit as they did when ethanol was produced. This means that the existing operating staff can continue to manage the production of isobutanol because they will already have experience with the base equipment. This continuity reduces the risks associated with the production startup following the retrofit as most of the process is unchanged and the existing operating staff is available to monitor and manage the production process.

As noted above, we intend to process the spent grain mash from our fermenters to produce iDGs , relying on established processes in the current ethanol industry. We anticipate approval of our iDGs by the U.S. Food and Drug Administration (FDA), and we plan to market it to the dairy, beef, swine and poultry industries as a high-protein, high-energy animal feed. To support these efforts, in December 2011 we entered into an exclusive off-take and marketing agreement with Land O Lakes Purina Feed for the sale of iDGs produced at the Agri-Energy Facility. We believe that our sales of our iDGs will allow us to offset a significant portion of our grain feedstock costs, in the same manner as is practiced by the corn-based ethanol industry today through sale of dry distillers grains.

Biocatalyst Overview

Our biocatalysts are microorganisms that have been designed to metabolize sugars to produce isobutanol. Our technology team develops these proprietary biocatalysts to efficiently convert fermentable sugars of all types by engineering isobutanol pathways into the biocatalysts, and then minimizing the production of unwanted by-products to improve isobutanol yield and purity, thereby reducing operating costs. With our biocatalysts, we have already demonstrated that we can produce isobutanol at key commercial parameters, validating our biotechnology pathways and efficiencies. Our commercial biocatalyst is yeast, which is designed to produce isobutanol from any fuel ethanol feedstock currently in commercial use, including grains (e.g., corn, wheat, sorghum and barley) and sugar cane. This feedstock flexibility supports our initial deployment in the U.S., as we seek to retrofit available ethanol production facilities which are primarily focused on corn feedstocks, and will enable our future expansion into international markets for production of isobutanol using sugar cane or other grain feedstocks.

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Although development work still needs to be done, we have shown at laboratory scale that we can convert cellulosic sugars into isobutanol. In addition, through an exclusive license and a services arrangement with Cargill, we are developing a cellulosic sugar converting yeast biocatalyst specifically designed to efficiently produce isobutanol from the sugars derived from cellulosic feedstocks, including crops that are specifically cultivated to be converted into fuels (e.g., switchgrass), forest residues (e.g., waste wood, pulp and sustainable wood), agricultural residues (e.g., corn stalks, leaves, straw and grasses) and municipal green waste (e.g., grass clippings and yard waste). Our current and future-generation biocatalysts are built upon robust industrial varieties of yeast that are widely used in large-scale fermentation processes, such as ethanol and lactic acid production. We have carefully selected our yeast biocatalyst platforms for their tolerance to isobutanol and other conditions present during an industrial fermentation process, as well as their known utility in large-scale commercial production processes. As a result, we expect our biocatalysts to equal or exceed the performance of the yeast used in prevailing grain ethanol production processes.

Biocatalyst Development

Initially, we used a pathway developed at the University of California, Los Angeles (UCLA) and exclusively licensed from The Regents of the University of California (The Regents), to create a research biocatalyst capable of producing biobased isobutanol. We chose to use *E. coli* as the bacteria for our research biocatalyst because of its ease of use and greater understanding relative to other biocatalysts, and because it was the microorganism used by UCLA in developing the licensed pathway. We then developed a new yeast biocatalyst to allow for anaerobic, or oxygen free, isobutanol production as well as minimizing the production of unwanted by-products to improve isobutanol yield and purity thereby reducing operating costs. These efforts resulted in a substantial fermentation yield increase and enabled compatibility with existing ethanol infrastructure.

By fermenting sugars to isobutanol without producing by-products, our proprietary isobutanol pathway channels the available energy content of fermentable sugars to isobutanol. Due to thermodynamic constraints that govern the conservation of energy, other processes may match our yield, but will be unable to exceed it significantly. We have achieved approximately 94% of the theoretical yield, which is near to, if not the maximum practical yield limit attainable from the fermentation of sugars. Our expected theoretical yield is equivalent to that of industrial ethanol production.

We designed our biocatalysts to equal or exceed the performance of the yeast currently used in commercial ethanol production not only in yield, or percentage of the theoretical maximum percentage of isobutanol that can be made from a given amount of feedstock, but also fermentation time, or how fast the sugar fed to the fermentation is converted to isobutanol. At least matching this level of performance is important to our initial commercial production because doing so allows GIFT® fermentation to be performed in most existing grain ethanol fermenters without increasing vessel sizes. Because an isobutanol molecule contains more carbon and hydrogen than an ethanol molecule, and because liquid isobutanol has a different density than liquid ethanol, the isobutanol volume our fermentation process produces will be approximately 80% of the volume of ethanol produced by ethanol fermentation at an equivalent fermentation theoretical yield on sugar. In other words, ICM s design studies predict that a retrofitted 100 MGPY ethanol plant can produce approximately 80 MGPY of isobutanol. A volume of 80 million gallons of isobutanol has roughly the same energy content as 100 million gallons of ethanol. Over time, we anticipate being able to the increase the productivity of our yeast biocatalyst, thereby allowing for the production of a greater volume of isobutanol over the same fermentation time which would allow for an increase in expected annual isobutanol production. Based on this expectation, we have increased the size of the proprietary isobutanol separation system being installed at the Agri-Energy Facility to accommodate potential increased isobutanol production.

Demonstrated Biocatalyst Performance

By August 2009, our research biocatalyst s performance was equal to or exceeded our targeted levels of commercial performance, defined as 48 to 72 hours fermentation time and a product yield of approximately 94% of the theoretical yield of isobutanol from the sugar in the feedstock. We initially achieved these fermentation

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performance goals with our research biocatalyst at our GIFT® mini-plant. In September 2009, we replicated this performance in a retrofit one MGPY ethanol demonstration facility located at ICM s St. Joseph, Missouri site.

We have completed the transfer of our proprietary isobutanol pathway to an industrially relevant yeast host and have achieved our commercial performance targets for fermentation time and product yield in our GIFT® mini-plant. Yeast is the preferred host for low cost industrial fermentation because it is industrially proven for biofuels production, capable of out-competing bacteria, and is not susceptible to bacteriophage, a common problem for bacterial fermentations. Our yeast has been specifically selected and developed for its performance in the GIFT® process, which will allow for lower cost isobutanol production.

By October 2010, our yeast biocatalyst had achieved a fermentation time of 52 hours and achieved approximately 94% of the theoretical maximum yield of isobutanol from feedstock, meeting our targeted fermentation performance criteria well in advance of our planned commercial launch of isobutanol production in the first half of 2012. We continue to improve the performance parameters of our yeast biocatalyst to further reduce operating costs and increase volume for isobutanol production.

Feedstock Flexibility

We have designed our yeast biocatalyst platform to be capable of producing isobutanol from any fuel ethanol feedstock currently in commercial use, which we believe, in conjunction with our proprietary isobutanol separation unit, will permit us to retrofit any existing fuel ethanol facility. We have demonstrated that our biocatalysts are capable of converting the types of sugars in grains and sugar cane to isobutanol at our commercial targets for fermentation time and yield. We believe our yeast biocatalyst will have the ability to convert these sugars into isobutanol at a commercial scale. The vast majority of fuel ethanol currently produced in the U.S. is produced from corn feedstock, which is abundant, according to data from the U.S. Department of Agriculture and the RFA. Although development work still needs to be done, we have shown at laboratory scale that we can convert cellulosic sugars into isobutanol. Through an exclusive license with Cargill, we are developing a future-generation yeast biocatalyst that is specifically designed to efficiently produce isobutanol from mixed sugars derived from cellulosic sources including purpose grown energy crops, agricultural residues, forest residues and municipal green waste. This yeast is highly hydrolyzate-tolerant and employs Cargill s technology for mixed sugar conversion.

We expect that our feedstock flexibility will allow our technology to be deployed worldwide and will enable us to offer our customers protection from the raw material cost volatility historically associated with petroleum-based products.

GIFT® Improves Fermentation Performance

Our experiments show that the GIFT® fermentation and recovery system provides enhanced fermentation performance as well as low cost recovery of isobutanol and other alcohols. The GIFT® system enables continuous separation of isobutanol from the fermentation tanks while fermentation is in process. Isobutanol is removed from the fermentation broth using a low temperature distillation to continuously remove the isobutanol as it is formed without the biocatalyst being affected. Since biocatalysts have a low tolerance for high isobutanol concentrations in fermentation, the valuable ability of our process to continuously remove isobutanol as it is produced allows our yeast biocatalyst to continue processing sugar into isobutanol at a high rate without being suppressed by rising levels of isobutanol in the fermenter, thereby reducing the time to complete the fermentation. Using our biocatalysts, we have demonstrated that GIFT® enables isobutanol fermentation times equal to, or less than, those achieved in the current conventional production of ethanol, which allows us to fit our technology into existing ethanol fermenters thereby reducing capital expenditures. We have designed a proprietary engineering package in partnership with ICM to carry out our isobutanol fermentation and recovery process, and this equipment has been successfully deployed via the retrofit of a one MGPY corn ethanol demonstration facility in St. Joseph, Missouri.

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GIFT® requires little change to existing ethanol production infrastructure. As with ethanol production, feedstock is ground, cooked, treated with enzymes and fermented. Just like ethanol production, after fermentation, a primary product (isobutanol) and a co-product (iDGs) are recovered for sale. The main modifications of the GIFT® system are replacing the ethanol producing yeast with Gevo s proprietary isobutanol producing yeast, and adding low temperature distillation for continuous removal and separation of isobutanol.

Conversion of Isobutanol into Hydrocarbons

We have demonstrated conversion of our isobutanol into a wide variety of hydrocarbon products which are currently used to produce plastics, fibers, rubber, other polymers and hydrocarbon fuels. Hydrocarbon products consist entirely of hydrogen and carbon and are currently derived almost exclusively from petroleum. Importantly, isobutanol can be dehydrated to produce butenes, which are an intermediate product in the production of hydrocarbon products with many industrial uses. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical. Much of the technology necessary to convert isobutanol into butenes and subsequently into these hydrocarbon products is known and practiced in the chemicals industry today, as shown in an SRI research study. For example, the dehydration of ethanol to ethylene, which uses a similar process and technology to the dehydration of isobutanol, is practiced commercially today to serve the ethylene market. The dehydration of isobutanol into butenes is not commercially practiced today, because isobutanol from petroleum is not cost-competitive with other petrochemical processes for generation of butenes, but we believe that our efficient and low cost fermentation technology for producing isobutanol will promote commercial isobutanol dehydration and provide us with the opportunity to access the hydrocarbon markets. In order to access these markets, we have developed a hydrocarbon demonstration plant at our partner South Hampton Resource s site near Houston, Texas. The demonstration plant is expected to process up to 10,000 gallons of our isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals.

Our Strategy

Our strategy is to commercialize our isobutanol for use directly as a specialty chemical and fuel blendstock and for conversion into plastics, fibers, rubber, other polymers and hydrocarbon fuels. Key elements of our strategy include:

Deploy first commercial production facility. In September 2010, we acquired a 22 MGPY ethanol production facility in Luverne, Minnesota. The retrofit of the Agri-Energy Facility to isobutanol production is underway and we expect to commence commercial production of isobutanol at the facility in the first half of 2012.

Build on existing off-take agreements with customers to support capacity growth. We have entered into an international off-take and distribution agreement with Sasol that accounts for the majority of our planned isobutanol production volume from the Agri-Energy and Redfield Facilities upon completion of their respective retrofits. We also have in place a commercial off-take agreement with Mansfield to sell isobutanol into fuels markets. Based on our expected available production volume from the Agri-Energy Facility, we project initial sales of our isobutanol into fuels markets will be introductory volumes intended to conduct demonstration trials. To further support our commercial production of isobutanol, we have entered into an off-take agreement with Land O Lakes Purina Feed to be the exclusive marketer of the iDGs and modified wet distiller grains produced at the Agri-Energy Facility for the animal feed market. We intend to add to our customer pipeline by entering into isobutanol supply agreements for further capacity with additional customers in the refining, specialty chemicals and transportation sectors both in the U.S. and internationally.

Expand our production capacity via retrofit of additional existing ethanol facilities. As we secure supply agreements with customers, we plan to expand access to production capacity through increasing production capacity at our then current locations and acquiring or gaining access to additional and larger scale ethanol facilities via joint ventures, tolling arrangements and acquisitions. As we establish

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our retrofit strategy, we may consider licensing our technology and engineering package to expand overall access to production capacity. We believe that our exclusive alliance with ICM will enhance our ability to rapidly deploy our technology on a commercial scale at these facilities. We plan to access additional production capacity to enable us to produce and sell over 350 million gallons of isobutanol in 2015.

Expand adoption of our isobutanol across multiple applications and markets. We intend to drive adoption of our isobutanol in multiple U.S. and international chemicals and fuels end-markets by offering a renewable product with superior properties at a competitive price. In addition, we intend to leverage existing and potential strategic partnerships with hydrocarbon companies to accelerate the use of isobutanol as a building block for drop-in hydrocarbons. This strategy will be implemented through direct supply agreements with leading chemicals and fuels companies, as well as through alliances with key technology providers.

Align the value chain for our isobutanol by collaborating with large brand owners and customers. We are developing commitments from large brand owners to purchase products made from our isobutanol by third-party chemicals and fuels companies. For example, we recently entered into a joint research, development, license and commercialization agreement with Coca-Cola to create renewable PX from plant based isobutanol, which will accelerate the development of Coca-Cola s second-generation PlantBottle packaging made from 100% plant-based materials. We have also been awarded a contract to supply the USAF with up to 11,000 gallons of biojet fuel which will be used to support engine testing and a flight demonstration using an A-10 aircraft. We intend to use these commitments, as well as other future agreements, to obtain contracts to sell our isobutanol directly into the manufacturing chain that will use our isobutanol as a building block in the production of PX, PET, biojet fuel and other hydrocarbon products.

Incorporate additional feedstocks into our isobutanol production facilities. Our yeast biocatalyst can produce isobutanol from any fuel ethanol feedstock currently in commercial use, including grains (e.g., corn, wheat, sorghum and barley) and sugar cane. While our initial focus is to access corn ethanol facilities in the U.S., the ability of our biocatalyst to produce isobutanol from multiple feedstocks will support our future efforts to expand production of isobutanol into international markets that use sugar cane or other grain feedstocks, either directly or through partnerships. We are also developing a future-generation biocatalyst under contract with Cargill. We believe that this future-generation biocatalyst will enable us to efficiently integrate mixed sugars from cellulosic feedstocks into our production facilities when the technology to separate and break down cellulosic biomass into separate simple sugar molecules becomes commercially available.

Industry Overview

Petroleum is a fundamental source of chemicals and fuels, with annual global demand in 2009 estimated at $2.6 trillion based on data from the IEA. Today s organic chemicals and fuels are predominantly derived from petroleum, as it has historically been convenient and inexpensive. However, recent fundamental trends, including increasing petroleum demand (especially from emerging markets), limited new supply, price volatility and the changing regulatory framework in the U.S. and internationally with regard to the environmental impact of fossil fuels has increased the need for economical, renewable and environmentally sensitive alternatives to petroleum at stable prices.

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These market developments, combined with advances in synthetic biology and metabolic pathway engineering, have encouraged the convergence between the industrial biotechnology and energy sectors. These new technologies enable the production of flexible platform chemicals, such as isobutanol, from renewable sources instead of fossil fuels, at economically competitive costs. Based on our compilation of data from SRI, Nexant, CMAI, the EIA and the IEA, we believe that isobutanol and the products derived from it have potential applications in approximately 40% of the global petrochemicals market and substantially all of the global fuels market, and that our isobutanol fulfills an immediate need for alternatives to petroleum. Previous attempts to create renewable, cost-effective alternatives to petroleum-based products have faced several challenges:

First generation renewable products are not considered drop-in solutions for existing petroleum infrastructure. Many products contemplated by earlier manufacturers are not considered effective alternatives to conventional petroleum due to various limitations, including lower energy content, viscosity and corrosive properties which limit pipeline transportation or require expensive engine modifications.

Capital intensity. Due to the high capital cost incurred in establishing new biofuels plants, numerous companies face limited expansion and customization opportunities and have not been able to relocate to areas with access to new or more cost-effective feedstocks.

Reliance on regulatory environment. Many conventional alternatives to current nonrenewable chemicals and fuels have relied heavily on government subsidies. In the absence of governmental support, these alternatives face significant operational hurdles and are often no longer economically viable.

Abundant supply of petroleum-based products. Traditionally butenes have been produced as co-products from the process of cracking naptha in the production of ethylene. Reported reductions in the use of naptha as the feedstock for the production of ethylene have changed the projected menu of co-products, resulting in a projected reduction in the volume of available butenes. This structural shift in feedstocks increases the potential market opportunity for our isobutanol in the production of butenes.

Advantages of Our Isobutanol

We believe our isobutanol provides advantages over both petroleum-based products and alternative renewable chemicals and fuels. These advantages are based on the chemical properties of isobutanol and our low cost production technology.

Lower cost to manufacture than petroleum isobutanol. We believe our biobased route to manufacture isobutanol is significantly lower cost than the predominant route to manufacture petroleum-based isobutanol. This will allow us to offer our biobased isobutanol to the existing isobutanol markets at a price we believe will encourage customers to switch from petroleum-based butanol to our biobased isobutanol. Further, we believe our price will enable the development of new uses for isobutanol as a gasoline blendstock and as a building block for a variety of intermediate chemicals and hydrocarbon products.

Low cost convertibility of renewable feedstocks into specialty chemicals and fuels. We believe our proprietary technology platform will enable rapid deployment and a relatively low capital cost route to isobutanol and currently represents the only known biological process to produce isobutanol cost-effectively from the fermentation of renewable feedstocks. Isobutanol is a highly flexible platform molecule with broad applications in the chemicals and fuels markets.

Alternative source of four-carbon hydrocarbons. Butenes, hydrocarbon products with many industrial uses, can be produced through the dehydration of isobutanol. We believe that butenes derived from our isobutanol can be further processed into other high-value hydrocarbon products using currently known chemistries, as shown in research reports by SRI and CMAI. These include ethyl tert-butyl ether, propylene, MMA, for use in plastics, industrial coatings and other chemical additives, such as antioxidants and plastics modifiers. The prevailing process to manufacture butenes for use by the petrochemical industry today is through the process

of cracking

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naptha in the production of ethylene. Ethylene crackers produce butenes as a co-product and the butenes market has tightened as these crackers have shut down and have shifted or committed to shift from oil to natural gas feedstocks, reducing the available supply of butenes. As a result, we expect the hydrocarbons derived from our isobutanol to provide chemical and fuel producers with both supply chain diversity and alternatives to current petroleum-derived products, which can be particularly important in a tight petrochemicals environment.

Feedstock flexibility. We believe our yeast biocatalyst will produce isobutanol cost-effectively at a commercial scale from any feedstock currently used to produce grain ethanol. Additionally, this biocatalyst provides the ability to convert sugar cane into isobutanol, which provides us with opportunities to expand our production into Brazil and other areas with sugar cane ethanol facilities. Moreover, our work with Cargill to develop a future-generation yeast biocatalyst enabling cellulosic isobutanol production will position us to integrate non-food-based feedstocks into our production facilities when the technology to separate and break down cellulosic biomass into separate simple sugar molecules becomes commercially available. We believe that having the flexibility to use different crops and agricultural by-products as a feedstock for isobutanol production is a particularly attractive trait to the chemicals and fuels markets and has the potential to mitigate their exposure to petroleum price volatility.

Optimized for existing infrastructure. Isobutanol is a fungible, drop-in fuel with chemical and performance characteristics as a fuel additive that are well known. For example, due to its low water solubility, we believe isobutanol can be transported in pipelines and blended into gasoline formulations at the refinery in contrast to prevailing practices where ethanol is blended at the terminal and cannot be transported via pipelines. Initial test results from DNV Columbus, Inc., a well-respected materials testing company, showed that isobutanol did not contribute to stress corrosion cracking in pipeline materials under conditions where ethanol typically would. We believe that refiners are interested in the possibility of using isobutanol to replace more expensive alkylates in their gasoline formulations. In addition, we believe that an important and distinct advantage of isobutanol is its potential ability to align the interests of refiners, commodity agriculture and the ethanol industry, accelerating the development of a biobased economy.

Highly effective solution to current regulatory limitations. The U.S. Environmental Protection Agency (EPA) currently limits gasoline blends for use in normal automobile engines to a maximum of 15% ethanol for model years 2001 and later, and 10% for all other model years. Isobutanol can expand biofuel market opportunities as a fuel blendstock as we expect it to be blended into gasoline at higher levels without modifying engines or gasoline distribution logistics. In November 2010, our isobutanol was approved by the EPA for 12.5% blending with gasoline. Additionally, we have filed a dossier for advanced isobutanol with the EPA. We expect a response on the status of our submission from the EPA in the first half of 2012. Even if made from corn in retrofitted ethanol plants, isobutanol can qualify as an advanced biofuel if it can provide a 50% lifecycle greenhouse gas (GHG) reduction compared to 2005 baseline gasoline. Lifecycle GHG emissions are the aggregate quantity of GHGs related to the full fuel cycle, including all stages of fuel and feedstock production and distribution, from feedstock generation and extraction through distribution, delivery and use of the finished fuel. Furthermore, because isobutanol contains approximately 30% more energy than ethanol, each gallon of isobutanol provides a renewable identification number (RIN) value of 1.3. Therefore, a refiner could purchase fewer gallons of isobutanol than ethanol while meeting its biofuels obligation under the Renewable Fuels Standard (RFS2).

Lower impact on air quality. Isobutanol has a low RVP. RVP measures a fuel s volatility, and in warm weather, high RVP fuel can contribute to precursors of smog formation. The EPA sets regional and seasonal clean air standards in the U.S., which include RVP limitations, with the potential for stricter air quality regulations in the near future. Given isobutanol s lower RVP relative to ethanol, we believe refiners using isobutanol blends will have more flexibility in their gasoline formulations to meet clean

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air standards. This added flexibility can be valuable in regions of the U.S. that fail to meet EPA-designated national air quality standards, or in markets like California where the RVP maximum is very low.

Value added specialty applications. Due to isobutanol s high energy content and low water solubility, as well as testing completed by the NMMA, OPEI and B&S, we believe that isobutanol may have direct applications in high value specialty fuels settings serving marine, small equipment engines and sports vehicle markets.

Competition

Our isobutanol is targeted for use in the following markets: direct use as a solvent and gasoline blendstock, use in the chemicals industry for producing plastics, fibers, rubber and other polymers and use in the production of hydrocarbon fuels. We face competitors in each market, some of which are limited to individual markets, and some of which will compete with us across all of our target markets.

Renewable isobutanol. We are a leader in the development of renewable isobutanol via fermentation of renewable plant biomass. While the competitive landscape in renewable isobutanol production is limited at this time, we are aware of other companies that are seeking to develop isobutanol production capabilities. These include Butamax Advanced Biofuels LLC (Butamax), a joint venture between BP p.l.c. (BP) and E. I. du Pont de Nemours and Company (DuPont), and Butalco GmbH, a development stage company based in Switzerland. While each of these entities is a private company, based on our due diligence related to intellectual property filings we believe that we have a very competitive position in the development of renewable isobutanol production.

Solvent markets. We also face competition from companies that are focused on the development of n-butanol, a related compound to isobutanol. These companies include Cathay Industrial Biotech Ltd., METabolic EXplorer S.A., Eastman Chemicals Company, Cobalt Technologies, Inc. and Green Biologics Ltd. We understand that these companies produce n-butanol from an acetone-butanol-ethanol (ABE) fermentation process primarily for the small chemicals markets. ABE fermentation using a Clostridia biocatalyst has been used in industrial settings since 1919. As discussed in several academic papers analyzing the ABE process, such fermentation is handicapped in competitiveness by high energy costs due to low concentrations of butanol produced and significant volumes of water processed. It requires high capital and operating costs to support industrial scale production due to the low rates of the Clostridia fermentation, and results in a lower butanol yield because it produces ethanol and acetone as by-products. We believe our proprietary process has many significant advantages over the ABE process because of its limited requirements for new capital expenditures, its production output of only isobutanol as a primary product and its limited water usage in production. We believe these advantages will produce a lower cost isobutanol compared to n-butanol produced by ABE fermentation. N-butanol s lower octane rating compared to isobutanol gives it a lower value in the gasoline blendstock market, but n-butanol can compete directly in many solvent markets where n-butanol and isobutanol have similar performance.

Gasoline blendstocks. In the gasoline blendstock market isobutanol competes with non-renewable alkylate and renewable ethanol. According to the RFA, the global market for ethanol as a fuel blendstock was approximately 23 billion gallons in 2010, and we estimate the total potential global market for isobutanol as a gasoline blendstock approximately 40 BGPY. Alkylate is a premium value gasoline blendstock typically derived from petroleum. However, petroleum feeds for alkylate manufacture are pressured by continued increases in the use of natural gas to generate olefins for the production of alkylate, due to the low relative cost of natural gas compared to petroleum. Alkylate has a low RVP and high octane rating. Ethanol is renewable and has a high octane rating, and although it has a high RVP, ethanol receives a one pound RVP waiver in a large portion of the U.S. gasoline market. Renewability is important in the U.S. because the RFS2 mandates that a minimum volume of renewable blendstocks be used in gasoline each year. A high octane rating is important for engine performance and is a valuable characteristic because many inexpensive gasoline blendstocks have lower octane ratings. Low RVP is important because the EPA sets maximum permissible RVP levels for gasoline. In markets where low RVP is important, isobutanol can enable refiners to meet fuel specifications at lower cost. Ethanol s vapor pressure waiver is valuable because it offsets much of the negative value of ethanol s high RVP. We believe that our isobutanol will be valued for its combination of low RVP, high octane and renewability.

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Many production and technology supply companies are working to develop ethanol production from cellulosic feedstocks, including Shell Oil, BP, DuPont-Danisco Cellulosic Ethanol LLC, Abengoa Bioenergy, S.A., POET, LLC, ICM, Mascoma, Range Fuels, Inbicon A/S, INEOS New Planet BioEnergy LLC, Coskata, Inc., Archer Daniels Midland Company, BlueFire Ethanol, Inc., KL Energy Corporation, ZeaChem Inc., Iogen Corporation, Qteros, Inc., AE Biofuels, Inc. and many smaller start-up companies. Successful commercialization by some or all of these companies will increase the supply of renewable gasoline blendstocks worldwide, potentially reducing the market size or margins available to isobutanol.

Plastics, fibers, rubber and other polymers. Isobutanol can be dehydrated to produce butenes, hydrocarbon intermediates currently used in the production of plastics, fibers, rubber and other polymers. The straightforward conversion of our isobutanol into butenes is a fundamentally important process that enables isobutanol to be used as a building block chemical in multiple markets. These markets include butyl rubber, lubricants and additives derived from butenes such as isobutylene, poly methyl methacrylate from isobutanol, propylene for polypropylene from isobutylene, polyesters made via PX from isobutylene and polystyrene made via styrene.

In these markets, we compete with the renewable isobutanol companies and renewable n-butanol producers described previously, and face similar competitive challenges. Our competitive position versus petroleum-derived plastics, fibers, rubber and other polymers varies, but we believe that the high volatility of petroleum prices, often tight supply markets for petroleum-based petrochemical feedstocks and the desire of many consumers for goods made from more renewable sources will enable us to compete effectively. However, petrochemical companies may develop alternative pathways to produce petrochemical-based hydrocarbon products that may be less expensive than our isobutanol or more readily available or developed in conjunction with major petrochemical, refiner or end user companies. These products may have economic or other advantages over the plastics, fibers, rubber and other polymers developed from our isobutanol. Further, some of these companies have access to significantly more resources than we do to develop products.

Additionally, Global Bioenergies, S.A. is pursuing the direct production of isobutylene from renewable carbohydrates. Through analysis of the fermentation pathway, we believe that the direct production of butenes such as isobutylene via fermentation will have higher capital and operating costs than production of butenes derived from our isobutanol.

Hydrocarbon fuels. Beyond direct use as a fuel additive, isobutanol can be converted into many hydrocarbon fuels and specialty blendstocks, offering substantial potential for additional demand in the fuels markets. We will compete with the incumbent petroleum-based fuels industry, as well as biofuels companies. The incumbent petroleum-based fuels industry makes the vast majority of the world s gasoline, jet and diesel fuels and blendstocks. The petroleum-based fuels industry is mature, and includes a substantial base of infrastructure for the production and distribution of petroleum-derived products. However, the industry faces challenges from its dependence on petroleum. Supply limitations have begun to increase the cost of crude, and oil prices are extremely volatile. High and volatile oil prices provide an opportunity for renewable producers relying on biobased feedstocks like corn, which in recent years have had lower price volatility than oil.

Biofuels companies will provide substantial competition in the gasoline market. These biofuels competitors are numerous and include both large established companies and numerous startups. Government tax incentives for renewable fuel producers and regulations such as the RFS2 help provide opportunities for renewable fuels producers to compete. In particular, in the gasoline and gasoline blendstock markets, Virent Energy Systems, Inc. (Virent) offers a competitive process for making gasoline and gasoline blendstocks. However, we have the advantage of being able to target conversion of isobutanol into specific high-value molecules such as isooctane, which can be used to make gasoline blendstocks with a higher value than whole gasoline, which we do not believe Virent s process can match. In the jet fuel market, we may face competition from companies such as Synthetic Genomics, Inc., Solazyme, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation, which are pursuing production of jet fuel from algae-based technology. LS9, Inc. (LS9) and others are also targeting production of jet fuels from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrotreated vegetable oils. In the diesel fuels market, competitors such as Amyris

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Biotechnologies, Inc. (Amyris) provide alternative hydrocarbon diesel fuel. We believe our technology provides a 20% higher yield on feedstock than the isoprenoid fermentation pathway developed by Amyris, which we believe will yield an approximately 20% production cost advantage.

Intellectual Property

Our success depends in large part on our proprietary products and technology for which we seek protection under patent, copyright, trademark and trade secret laws. Such protection is also maintained in part using confidential disclosure agreements. Protection of our technologies is important so that we may offer our customers and partners proprietary services and products unavailable from our competitors, and so that we may exclude our competitors from practicing technology that we have developed or exclusively licensed. If competitors in our industry have access to the same technology, our competitive position may be adversely affected. As of December 31, 2011, we exclusively licensed rights to 74 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions. Of the licensed patents and patent applications, most are owned by Cargill and exclusively licensed to us for use in certain fields. These licensed patents and patent applications cover both enabling technologies and products or methods of producing products. Our licenses to such patents allow us to freely practice the licensed inventions, subject only to the terms of these licenses. As of December 31, 2011, we have submitted 243 patent applications in the U.S. and in various foreign jurisdictions. These patent applications are directed to our technologies and specific methods and products that support our business in the biofuel and bioindustrial markets. We continue to file new patent applications, for which terms extend up to 20 years from the filing date in the U.S.

As of January 31, 2012, we have been issued 5 patents: U.S. Patent No. 8,017,375, Yeast Organism Producing Isobutanol at a High Yield (PDC Patent), U.S. Patent No. 8,017,376, Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids (AFT Patent), U.S. Patent No. 8,017,358, covering additional Methods of Increasing Dihydroxy Acid Dehydratase (DHAD) Activity to Improve Production of Fuels, Chemicals, and Amino Acids. (DHAD Patent) U.S. Patent No. 8,097,440, Engineered Microorganisms Capable of Producing Target Compounds Under Anaerobic Conditions. (NKR Patent) and U.S. Patent No. 8,101,808, Recovery of Higher Alcohols From Dilute Aqueous Solutions. (GIFT Patent).

Each of our PDC, AFT, DHAD and NKR Patents represent key aspects of our biocatalyst that survives and thrives by producing isobutanol at high yields. Our PDC Patent focuses on converting an ethanol producing yeast into an isobutanol producing one. This discovery virtually eliminates ethanol production in yeast and enables our yeast to survive and thrive by producing isobutanol at high yields. The AFT Patent represents one of the key enzymatic steps in our unique intracellular pathway for producing isobutanol in yeast. To invent these technologies, we used synthetic biology to reprogram the yeast to make isobutanol instead of ethanol. Our DHAD Patent further details and protects the innovations contained in our yeast biocatalyst to turn an industrial yeast strain into an efficient cell factory to produce isobutanol. Our NKR Patent represents a technology that enables the low-cost, high-yield production of biobased isobutanol. We believe the most efficient and economical way to make isobutanol is to use yeast that does not need significant amounts of oxygen (anaerobic). Our NKR patent describes an anaerobic yeast utilizing a novel enzymatic structure. On January 24, 2012, we received a landmark patent from the United States Patent and Trademark Office (the USPTO) on our GIFT® separation technology, a central element in our fermentation technology for the production of isobutanol. This is a central patent in our intellectual property estate that distinguishes our route to the economic production of isobutanol, including the production of ethanol and other higher alcohols. The patent covers 156 claims and has broad application in the fermentation alcohol industry.

We will continue to file and prosecute patent applications and maintain trade secrets, as is consistent with our business plan, in an ongoing effort to protect our intellectual property. It is possible that our licensors current patents, or patents which we may later acquire or license, may be successfully challenged or invalidated in whole or in part. It is also possible that we may not obtain issued patents from our filed applications, and may not be able to obtain patents regarding other inventions we seek to protect. Under appropriate circumstances, we may sometimes permit certain intellectual property to lapse or go abandoned. Due to uncertainties inherent in

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prosecuting patent applications, sometimes patent applications are rejected and we may subsequently abandon them. It is also possible that we will develop products or technologies that will not be patentable or that the patents of others will limit or preclude our ability to do business. In addition, any patent issued to us may provide us with little or no competitive advantage, in which case we may abandon such patent or license it to another entity.

We have obtained registered trademarks for Gevo Integrated Fermentation Technology®, GIFT®, and Gevo® in the U.S., and we have a pending U.S. trademark application for iDGs . These registered and pending U.S. trademarks are also registered or pending in certain foreign countries.

Our means of protecting our proprietary rights may not be adequate and our competitors may independently develop technology or products that are similar to or compete with ours. Patent, trademark and trade secret laws afford only limited protection for our technology platform and products. The laws of many countries do not protect our proprietary rights to as great an extent as do the laws of the U.S. Despite our efforts to protect our proprietary rights, unauthorized parties have in the past attempted, and may in the future attempt, to operate using aspects of our intellectual property or products or to obtain and use information that we regard as proprietary. Third parties may also design around our proprietary rights, which may render our protected technology and products less valuable. In addition, if any of our products or technologies is covered by third-party patents or other intellectual property rights, we could be subject to various legal actions. We cannot assure you that our technology platform and products do not infringe patents held by others or that they will not in the future.

Litigation may be necessary to enforce our intellectual property rights, to protect our trade secrets, to determine the validity and scope of the proprietary rights of others or to defend against claims of infringement, invalidity, misappropriation or other allegations. Any such litigation could result in substantial costs and diversion of our resources. In particular, over time, the costs of defending the lawsuit filed by Butamax, a joint venture between DuPont and BP, alleging that we have infringed upon one patent relating to the production of isobutanol, may become significant (as described further in Part I, Item 3 of this Report). Moreover, any settlement of or adverse judgment resulting from such litigation could require us to obtain a license to continue to make, use or sell the products or technology that is the subject of the claim, or otherwise restrict or prohibit our use of the technology.

Partnerships and Collaborations

ICM, Inc.

We currently have an exclusive alliance with ICM to retrofit ethanol plants to the production of isobutanol. ICM is a company that focuses on engineering, building and supporting biorefineries for the renewable fuel industry. We believe that our alliance with ICM will provide us with a competitive advantage and allow us to more quickly achieve commercial-scale production of isobutanol. Through our alliance with ICM, we plan to retrofit existing ethanol plants to expand our production. ICM is well-positioned for this project because they have designed over 50% of the current U.S. operating ethanol production capacity.

Development Agreement. On October 16, 2008, we entered into a development agreement with ICM, which set forth the terms for the development of a one MGPY corn drying ethanol demonstration facility in St. Joseph, Missouri. Working with ICM engineers, we installed GIFT® at the St. Joseph demonstration plant, and successfully produced isobutanol. This demonstrated that we can cost-effectively retrofit existing ethanol facilities to produce isobutanol, a cornerstone of our strategy. The development agreement, as amended, may be terminated by either party upon 30 days written notice.

Commercialization Agreement. We also entered into a commercialization agreement with ICM on October 16, 2008. Under this agreement, as amended, ICM serves as our exclusive engineering contractor for the retrofit of ethanol plants in North America, and we serve as ICM s exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars. This commercialization agreement outlines the terms and fees under which ICM will provide engineering and construction services for

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commercial plants utilizing dry-milled feedstocks of corn or grain sorghum. Pursuant to the commercialization agreement, we are working with ICM on the joint development of commercial plants utilizing our GIFT® system, including the development of engineering designs to retrofit existing dry-mill ethanol facilities. Due to the fact that some of ICM s proprietary process technology will be included in the plant designs, both parties intend that ICM will be the exclusive engineering services provider for commercial plants. However, in the event that ICM fails to meet commercially reasonable timelines for the engineering of the commercial plants, after a 30-day cure period, we may terminate our exclusivity obligations to ICM. The term of the commercialization agreement is through October 16, 2018. Either party may terminate the commercialization agreement upon 30 days notice in the event that the other party ceases regular operations, enters or is forced into bankruptcy or receivership, liquidates its assets or breaches the agreement.

In August 2011, we also entered into a work agreement with ICM. Pursuant to the terms of the work agreement, ICM will provide engineering, procurement and construction (EPC) services for the retrofit of ethanol plants including the retrofit of the Agri-Energy Facility. We expect our alliance with ICM to help us continue to develop efficiency and cost improvements in retrofitting plants and producing isobutanol.

Cargill, Incorporated

We have developed a relationship with Cargill, and have obtained exclusive rights to develop and integrate Cargill s microorganisms into GIFT®. These microorganisms are able to process cellulosic biomass, which we hope will eventually allow low cost production of isobutanol from varied inputs with an even smaller environmental footprint, including purpose grown energy crops (e.g., switchgrass), forest residues (e.g., waste wood, pulp and sustainable wood), agricultural residues (e.g., corn stalks, leaves, straw and grasses) and municipal green waste (e.g., grass clippings and yard waste).

License Agreement. On February 19, 2009, we entered into a license agreement with Cargill. Under the license agreement, Cargill granted us an exclusive, worldwide, royalty-bearing license to certain Cargill patents and biological materials, including specialized microorganisms and tools for modifying those microorganisms to produce specific molecules. We also have an option, with a first right of refusal, to purchase an exclusive license to use such patents and biological materials owned by Cargill to produce additional molecules.

In exchange for the rights granted under the license agreement, we paid Cargill an upfront license fee and have committed to make additional payments to Cargill including, (i) payments based on the achievement of certain milestones, (ii) payments upon the commercialization of product lines which use the Cargill biological materials or are otherwise covered by the patent rights, and (iii) royalty payments. We may terminate the license agreement at any time upon 90 days written notice and either party may terminate the license agreement for a material breach by the other party that is not cured within 120 days of notification of such breach. Unless terminated earlier, the agreement remains in effect until no licensed patent rights remain under the license agreement.

The Coca-Cola Company

We have established a working relationship with Coca-Cola to create renewable PX from our isobutanol in an effort to accelerate the development of Coca-Cola s second generation PlantBottle packaging made from 100% plant-based materials.

Joint Research, Development, License and Commercialization Agreement. In November 2011, we entered into a joint research, development, license and commercialization agreement with Coca-Cola. Pursuant to this agreement, we have agreed to conduct research and development activities, including engineering to produce PX from isobutanol, with the ultimate goal of producing PET for food-grade bottling. Our work will take the technology from lab-scale to commercial-scale and support Coca- Cola s efforts to lead the beverage industry away from fossil-fuel based packaging by offering an alternative made completely from renewable raw materials. Additionally, pursuant to the terms of the agreement, Coca-Cola will pay us a fixed fee for the research program during the first two years of the agreement.

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South Hampton Resources

Pilot Plant Processing Agreement. To facilitate the demonstration of isobutanol conversion technologies, in July 2011, we entered into a pilot plant processing agreement with South Hampton Resources, a subsidiary of Arabian American Development Co. (NASDAQ: ARSD), to build a hydrocarbon processing demonstration plant at their facility near Houston, Texas. The facility started up in December 2011, is currently producing jet fuel for certification testing and is expected to supply other potential customers with material for product qualification and evaluation. The demonstration plant is expected to process up to 10,000 gallons of isobutanol per month into a variety of renewable hydrocarbons for use as fuels and chemicals. Through operation of this plant, we intend to demonstrate a fully integrated biorefinery processing renewable carbohydrates all the way to fungible hydrocarbon materials used across the refining and petrochemical industries. We expect this plant to showcase the value of our renewable hydrocarbons and drive future customer interest in hydrocarbon products derived from our isobutanol.

Other Material Agreements

Gevo Development, LLC

In September 2009, Gevo, Inc. formed Gevo Development, LLC (Gevo Development), as a majority-owned subsidiary to develop isobutanol production assets using GIFT®. Gevo Development has a flexible business model and aims to secure access to existing ethanol capacity through joint ventures and direct acquisitions. Gevo Development has two classes of membership interests outstanding. Since Gevo Development s inception, Gevo, Inc. has been the sole owner of the class A interests, which comprise 90% of the outstanding equity interests of Gevo Development. When Gevo Development was formed, CDP Gevo, LLC (CDP), which is beneficially owned by the two co-managing directors of Gevo Development, was the sole owner of the class B interests, which comprise the remaining 10% of the outstanding equity interests of Gevo Development. In September 2010, Gevo, Inc. acquired 100% of the outstanding class B interests of Gevo Development from CDP pursuant to an equity purchase agreement. As a result of this acquisition, Gevo, Inc. currently owns 100% of the outstanding equity interests of Gevo Development as a wholly owned subsidiary. See further discussion under the heading Equity Purchase Agreement and Related Transactions below.

Amended and Restated Warrant Agreement. In connection with the formation of Gevo Development in September 2009, Gevo, Inc. granted a common stock warrant to CDP to purchase up to 858,000 shares of our common stock. The warrant agreement has an exercise price of $2.70 per share, which was the estimated fair value of a share of our common stock on the grant date. The warrant expires in September 2016, unless terminated earlier as provided in the agreement. In September 2010, upon the consummation of Gevo, Inc. s purchase of the class B interests from CDP, the warrant agreement was amended and restated to provide that 50% of the warrant shares granted under such warrant agreement would vest on September 22, 2010. The remaining warrant shares vest over a two-year period beginning on September 22, 2010, subject to acceleration and termination in certain circumstances, such as the occurrence of a change of control event or a termination of the employment of the former principals of CDP. We valued the warrant at $13,956,000 on September 22, 2010, and recognized 50% of this amount as stock-based compensation on September 22, 2010. We are and will recognize the remaining 50% of this amount over the 24-month vesting period that began on September 22, 2010.

Equity Purchase Agreement and Related Transactions. In September 2010, Gevo, Inc. became the sole owner of Gevo Development by acquiring 100% of the class B interests in Gevo Development, which comprise 10% of the outstanding equity interests of Gevo Development, from CDP pursuant to an equity purchase agreement. In exchange for the class B interests, CDP received aggregate consideration of $1,143,000. Since September 22, 2010, each of the owners of CDP has been employed by Gevo, Inc. as an Executive Vice President, Upstream Business Development and as a co-managing director of Gevo Development. Upon the closing of the transactions contemplated by the equity purchase agreement, Gevo, Inc. amended and restated CDP s warrant agreement, as described above.

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Agri-Energy Acquisition

Acquisition Agreement. In September 2010, we acquired all of the membership interests of Agri-Energy, LLC, a Minnesota limited liability company, and certain assets of Agri-Energy Limited Partnership, a Minnesota limited partnership (collectively referred to as Agri-Energy), from their common owner, CORN-er Stone Farmers Cooperative, a Minnesota cooperative association. Pursuant to the terms of the acquisition, we acquired ownership of the Agri-Energy Facility. We paid a purchase price of $20.6 million. In addition, we acquired and paid $4.9 million for working capital.

The retrofit of our Agri-Energy Facility to isobutanol production is underway and we expect to begin commercial production of isobutanol at the facility in the first half of 2012. We also intend to increase the potential isobutanol production capacity of facility in anticipation of future improvements in the performance of our yeast biocatalyst. We project capital costs for the retrofit of the Agri- Energy Facility to be $22 million, which includes equipment necessary in order to switch between ethanol and isobutanol production plus additional capital which will be used to increase the potential production capacity of the facility. While we believe we will have the ability to reverse the retrofit and switch between ethanol and isobutanol production, there is no guarantee that this will be the case and it is not our intent to do so. In addition to the retrofit of the Agri-Energy Facility to produce isobutanol, in July 2011 we made the strategic decision to invest in an enhanced yeast seed train at the facility to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants, maintain direct oversight over our yeast material and provide on-site yeast production. We estimate capital costs for the enhanced yeast seed train to be approximately $10 million.

Redfield Energy LLC

Joint Venture Agreement. On June 15, 2011, we entered into the Joint Venture Agreement with Redfield and executed the second amended and restated operating agreement of Redfield (together, the Joint Venture Documents). Under the terms of the Joint Venture Documents, we have agreed to work with Redfield to retrofit Redfield s approximately 50 MGPY ethanol production facility located near Redfield, South Dakota for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the Class G Units) to our wholly-owned subsidiary, Gevo Development, in exchange for a payment of $1,000. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield s 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time we anticipate consolidating Redfield s operations because we anticipate we will control the activities that are most significant to the entity.

We will be responsible for all costs associated with the retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. We anticipate that the Redfield Facility will continue its current ethanol production activities during much of the retrofit. Once the retrofit assets have been installed, the ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the Performance Testing Phase). During the Performance Testing Phase, we will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the Facility Payments). We have also agreed to maintain an escrow fund during the Performance Testing Phase as security for our obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) we will have the right to appoint a total of four members of

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Redfield s 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield s profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol has begun. Additionally, we will license the technology necessary to produce isobutanol at the facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, we will forfeit the Class G Units and lose the value of our investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 15, 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the retrofit of the Redfield Facility.

TriplePoint Financing

Gevo Loan Agreement. In August 2010, concurrently with the execution of the agreement to acquire Agri-Energy in Luverne, Minnesota, Gevo, Inc. entered into a loan and security agreement with TriplePoint Capital LLC (TriplePoint), pursuant to which we borrowed $5,000,000 (the Gevo Loan Agreement). The Gevo Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default, including, disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, or acquiring or merging with another entity, excluding Agri-Energy, unless we receive the prior approval of TriplePoint. The aggregate amount outstanding under the Gevo Loan Agreement bears interest at a rate equal to 13%, is subject to an end-of-term payment equal to 8% of the amount borrowed and is secured by substantially all of the assets of Gevo, Inc., other than our intellectual property. This loan is also secured by substantially all of the assets of Agri-Energy, LLC. Additionally, under the terms of each of (i) the Gevo Loan Agreement and (ii) Gevo, Inc. s guarantee of Agri-Energy s obligations under the Original Agri-Energy Loan Agreement described below, Gevo, Inc. is prohibited from granting a security interest in its intellectual property assets to any other entity until both TriplePoint loans are paid in full. The loan matures on August 31, 2014, and provides for interest-only payments during the first 24 months. An additional interest-only period of 6 months may be elected in the event that Gevo, Inc. begins producing isobutanol at its Agri-Energy Facility by June 30, 2012. We used the funds from this loan to repay a portion of our existing indebtedness with Lighthouse Capital Partners V, L.P. (Lighthouse). At December 31, 2011, we were in compliance with the debt covenants under the Gevo Loan Agreement.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12,500,000 from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the loan and security agreement was amended to make Agri-Energy the borrower under the facility. This loan and security agreement (the Original Agri-Energy Loan Agreement), includes customary affirmative and negative covenants for agreements of this type and events of default. The aggregate amount outstanding under the Original Agri-Energy Loan Agreement bears interest at a rate equal to 13% and is subject to an end-of-term payment equal to 8% of the amount borrowed. The loan is secured by the equity interests of Agri-Energy held by Gevo Development and substantially all the assets of Agri-Energy. The loan matures on September 1, 2014, and provides for interest-only payments during the first 24 months. An additional interest-only period of 6 months may be elected in the event that Gevo, Inc. begins producing isobutanol at its Agri-Energy Facility by June 30, 2012. The loan is guaranteed by Gevo, Inc. pursuant to a continuing guaranty executed by Gevo, Inc. in favor of TriplePoint, which is secured by substantially all of the assets of Gevo, Inc., other than its intellectual property. At December 31, 2011, we were in compliance with the debt covenants under the Original Agri-Energy Loan Agreement.

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Amended Agri-Energy Loan Agreement. In October 2011, Agri-Energy entered into an amended and restated loan and security agreement (the Amended Agri-Energy Loan Agreement) with TriplePoint. The Amended Agri-Energy Loan Agreement amends and restates the Original Agri-Energy Loan Agreement. The Amended Agri-Energy Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default. The Amended Agri-Energy Loan Agreement provides Agri-Energy with additional term loan facilities of up to $15,000,000 (the New Loan) (which amount is in addition to the existing $12,500,000 term loan provided under the Original Agri-Energy Loan Agreement, which term loan remains in place under the Amended Agri-Energy Loan Agreement), the proceeds of which will be used to pay a portion of the costs, expenses, and other amounts associated with the retrofit of the Agri-Energy Facility to produce isobutanol. The loan matures on October 31, 2015 with the last monthly amortization payment due on the date of such advance. The aggregate amount outstanding under the New Loan bears interest at a rate of 11% and is subject to an end-of-term payment equal to 5.75% of the amount borrowed. The New Loan provides for interest-only payments through July 1, 2012 and an additional interest-only period of 6 months on the New Loan may be elected in the event that we have received net offering proceeds of at least $75 million from one or more secondary equity offerings by June 30, 2012. Any borrowings in excess of 50% of the amount incurred for the retrofit the Agri-Energy Facility, calculated as incurred in total by 6.5 months from the date of the advance, must be immediately repaid to TriplePoint. On October 20, 2011, Agri-Energy borrowed $10,000,000 under the Amended Agri-Energy Loan Agreement. On January 6, 2012, Agri-Energy borrowed an additional $5,000,000 under this facility, bringing the total borrowed under the New Loan at January 6, 2012 to $15,000,000. Upon our request and the additional approval of TriplePoint, we may borrow an additional $5,000,000 under the Amended Agri-Energy Loan Agreement increasing the maximum size of the New Loan to $20,000,000. At December 31, 2011, we were in compliance with the debt covenants under the Amended Agri-Energy Loan Agreement.

The Amended Agri-Energy Loan Agreement provides that Agri-Energy will secure all of its obligations under the Amended Agri-Energy Loan Agreement and any other loan documents by granting to TriplePoint a security interest in and lien upon all or substantially all of its assets. Gevo, Inc. has guaranteed Agri-Energy s obligations under the Amended Agri-Energy Loan Agreement. As additional security, concurrently with the execution of the Amended Agri-Energy Loan Agreement, (i) Gevo Development entered into a limited recourse continuing guaranty in favor of TriplePoint, (ii) Gevo Development entered into an amended and restated limited recourse membership interest pledge agreement in favor of TriplePoint, pursuant to which it pledged the membership interests of Agri-Energy as collateral to secure the obligations under its guaranty and (iii) Gevo, Inc. entered into an amendment to its security agreement with TriplePoint, which secures its guarantee of Agri-Energy s obligations (including up to $32,500,000 in term loans) under the Amended Agri-Energy Loan Agreement.

Research and Development

Our strategy depends on continued improvement of our technologies for the production of isobutanol, as well as next generation chemicals and biofuels based on our isobutanol technology. Accordingly, we annually devote significant funds to research and development. The following table shows our research and development costs by function during each of the three years ended December 31, 2011:

	2011	2010	2009
Biocatalyst development	$ 9,722,000	$ 9,504,000	$ 7,007,000
Process engineering and operation of pilot and demo plants	8,462,000	4,469,000	2,722,000
Chemistry and applications development	1,569,000	847,000	779,000
	$ 19,753,000	$ 14,820,000	$ 10,508,000

During 2011, 2010 and 2009, we recorded revenue from government grants and cooperative agreements in the amounts of $807,000, $1,493,000 and $660,000, respectively, which primarily related to research and development activities performed in our biocatalyst, chemistry, and applications development groups.

Our research and development activities are currently being performed primarily in our corporate headquarters located in Englewood, Colorado as well as at the demonstration plant within ICM s facility in St. Joseph, Missouri and the demonstration plant at the South Hampton Resources facility near Houston, Texas.

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Environmental Compliance Costs

Regulation by governmental authorities in the U.S. and other countries is a significant factor in the development, manufacture and marketing of second-generation biofuels. Our isobutanol and the next generation products isobutanol will be used to produce may require regulatory approval by governmental agencies prior to commercialization. In particular, biofuels are subject to rigorous testing and premarket approval requirements by the EPA s Office of Transportation and Air Quality, and regulatory authorities in other countries. In the U.S., various federal, and, in some cases, state statutes and regulations also govern or impact the manufacturing, safety, storage and use of biofuels. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. Regulatory approval, if and when obtained for any of these next generation products, may be limited in scope, which may significantly limit the uses for which our isobutanol and these next generation products may be marketed.

When built at a dry-mill facility, our GIFT® fermentation process creates iDGs , a potential animal feed component, as a co-product. Before we can sell iDGs for animal consumption, we require approval from the Center for Veterinary Medicine of the FDA. The FDA s policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our co-products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

Our process contains a genetically engineered organism which, when used in an industrial process, is considered a new chemical under the EPA s Toxic Substances Control Act program (TSCA). These laws and regulations require us to obtain and comply with the EPA s Microbial Commercial Activity Notice process to operate our isobutanol assets. We do not anticipate a material adverse effect on our business or financial condition as a result of our efforts to comply with these requirements. However, the TSCA new chemical submission policies may change and additional government regulations may be enacted that could prevent or delay regulatory approval of our products. We cannot predict the likelihood, nature or extent of adverse governmental regulations that might arise from future legislative or administrative action, either in the U.S. or abroad.

There are various third-party certification organizations, such as ASTM and Underwriters Laboratories, Inc. (UL), involved in certifying the transportation, dispensing and use of liquid fuel in the U.S. and internationally. Voluntary standards development organizations may change and additional requirements may be enacted that could prevent or delay marketing approval of our products. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations require the expenditure of substantial resources. We do not anticipate a material adverse effect on our business or financial conditions as a result of our efforts to comply with these requirements, but we cannot predict the likelihood, nature or extent of adverse third-party requirements that might arise from future action, either in the U.S. or abroad.

We are subject to various federal, state and local environmental laws and regulations, including those relating to the discharge of materials into the air, water and ground, the generation, storage, handling, use, transportation and disposal of hazardous materials and the health and safety of our employees. These laws and regulations require us to obtain environmental permits and comply with numerous environmental restrictions as we construct and operate our isobutanol assets. They may require expensive pollution control equipment or operation changes to limit actual or potential impacts to the environment. A violation of these laws, regulations or permit conditions can result in substantial fines, natural resource damage, criminal sanctions, permit revocations and facility shutdowns.

There is a risk of liability for the investigation and cleanup of environmental contamination at each of the properties that we own or operate and at off-site locations where we arrange for the disposal of hazardous substances. If these substances are or have been disposed of or released at sites that undergo investigation or remediation by regulatory agencies, we may be responsible under the Comprehensive Environmental Response, Compensation and Liability Act or other environmental laws for all or part of the costs of investigation and remediation. We may also be subject to related claims by private parties alleging property damage and personal

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injury due to exposure to hazardous or other materials at or from the properties. Some of these matters may require us to expend significant amounts for investigation and cleanup or other costs. We are not aware of any material environmental liabilities relating to contamination at or from our facilities or at off-site locations where we have transported or arranged for the disposal of hazardous substances.

In addition, new laws, new interpretations of existing laws, increased governmental enforcement of environmental laws or other developments could require us to make significant additional expenditures. Continued government and public emphasis on environmental issues can be expected to result in increased future investments in environmental controls at our facilities. Present and future environmental laws and regulations applicable to our operations, more vigorous enforcement policies and discovery of currently unknown conditions could all require us to make substantial expenditures. For example, our air emissions are subject to the Clean Air Act, the Clean Air Act Amendments of 1990 and similar state and local laws and associated regulations. Under the Clean Air Act, the EPA has promulgated National Emissions Standards for Hazardous Air Pollutants (NESHAP), which could apply to facilities that we own or operate if the emissions of hazardous air pollutants exceed certain thresholds. If a facility we operate is authorized to emit hazardous air pollutants above the threshold level, then we might still be required to come into compliance with another NESHAP at some future time. New or expanded facilities might be required to comply with both standards upon startup if they exceed the hazardous air pollutant threshold. In addition to costs for achieving and maintaining compliance with these laws, more stringent standards may also limit our operating flexibility.

As a condition to granting the permits necessary for operating our facilities, regulators could make demands that increase our construction and operations costs, which might force us to obtain additional financing. For example, unanticipated water discharge limits could sharply increase construction costs for our projects. Permit conditions could also restrict or limit the extent of our operations. We cannot guarantee that we will be able to obtain or comply with the terms of all necessary permits to complete the retrofit of an ethanol plant. Failure to obtain and comply with all applicable permits and licenses could halt our construction and could subject us to future claims.

Employees

As of December 31, 2011, Gevo, Inc. and its subsidiaries employed 114 employees. Gevo, Inc. employed 87 of our total employees, 80 of which were located in Englewood, Colorado. Of the Gevo, Inc. employees, 59 were engaged in research and development activities and 28 were engaged in general, administrative and business development activities. As of December 31, 2011, 25 Gevo, Inc. employees held Ph.D. degrees. As of December 31, 2011, our subsidiary Agri-Energy employed 27 employees, all of which were located in Luverne, Minnesota, and involved in the operations of our ethanol production facility. None of our employees are represented by a labor union, and we consider our employee relations to be good.

Segments and Geographic Information

We have determined that we have two operating segments: the Gevo, Inc. Segment and the Gevo Development/Agri-Energy Segment. We organize our business segments based on the nature of the products and services offered through each of our consolidated legal entities. Transactions between segments are eliminated in consolidation. For both segments, all revenue is earned and all assets are held in the U.S. For additional financial information related to our segments, see Note 18 to our consolidated financial statements.

Gevo, Inc. Segment. Our Gevo, Inc. Segment is responsible for all research and development activities related to the future production of isobutanol, including the development of our proprietary biocatalysts, our retrofit process and the next generation of chemicals and biofuels that will be based on our isobutanol technology. Our Gevo, Inc. Segment also develops, maintains and protects our intellectual property portfolio, develops future markets for our isobutanol and provides corporate oversight services.

Gevo Development/Agri-Energy Segment. Our Gevo Development/Agri-Energy Segment is currently responsible for the production of ethanol and related products. Upon the completion of the Agri-Energy

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acquisition in September 2010, we acquired an operating 22 MGPY ethanol production facility in Luverne, Minnesota, which we are retrofitting to isobutanol production. Upon completion of the retrofit of the Agri-Energy Facility to isobutanol production, our Gevo Development/Agri-Energy Segment will be responsible for isobutanol and related products. Agri-Energy is a wholly owned subsidiary of Gevo Development. The principal products produced by our Gevo Development/Agri-Energy Segment today are ethanol and related products. Substantially all of the ethanol produced from the date of the acquisition through December 31, 2011 was sold through an ethanol marketing company. Sales of ethanol and related products from our Gevo Development/Agri-Energy Segment comprised approximately 99% of our consolidated revenue for the fiscal year ended December 31, 2011.

Executive Officers and Directors of the Registrant

The following table sets forth certain information about our executive officers and directors, as of December 31, 2011.

Name	Age	Position(s)
Patrick R. Gruber, Ph.D.	51	Chief Executive Officer and Director
Christopher Ryan, Ph.D.	50	President and Chief Operating Officer
David Glassner, Ph.D.	54	Executive Vice President, Technology
Mark Smith	50	Chief Financial Officer
Brett Lund, J.D., M.B.A.	36	Executive Vice President, General Counsel and Secretary
David Black, M.B.A.	49	Executive Vice President, Upstream Business Development
Michael Slaney, J.D.	48	Executive Vice President, Upstream Business Development
Shai Weiss(1)(2)	43	Chairman of the Board of Directors
Carlos A. Cabrera(2)(3)	60	Director
Ganesh M. Kishore, Ph.D.(1)	58	Director
Gary W. Mize(1)(3)	60	Director
Bruce A. Smith(2)(3)	68	Director
Stacy J. Smith(1)	49	Director

(1) Member of the compensation committee.
(2) Member of the nominating and corporate governance committee.
(3) Member of the audit committee.

Patrick R. Gruber, Ph.D. has served as a director of the company since 2007 and has served as Chief Executive Officer of the company since 2007. Prior to joining the company, from 2005 to 2007 Dr. Gruber was President and Chief Executive Officer of Outlast Technologies, Inc., a technology and marketing company primarily serving the textile industry, where he was responsible for all aspects of Outlast Technologies business. Previously, Dr. Gruber co-founded NatureWorks LLC (formerly Cargill Dow, LLC) and served as Vice President, Technology and Operations, and Chief Technology Officer from 1997 to 2005, where he was responsible for all aspects of the business s project, application and process technology development. Dr. Gruber is a member of the Bioenergy Technical Advisory Committee for the Energy Future Coalition. He currently serves on the boards of directors of Segetis, Inc. and Green Harvest Technologies, LLC. From 2007 to 2008, he served on the board of directors of Outlast Technologies, Inc. In 2008, Dr. Gruber was awarded the first ever George Washington Carver Award, recognizing significant contributions by individuals in the field of industrial biotechnology and its application in biological engineering, environmental science, biorefining and biobased products. Dr. Gruber holds a Ph.D. in chemistry from the University of Minnesota, an M.B.A. from the University of Minnesota and a B.S. in chemistry and biology from the University of St. Thomas. We believe Dr. Gruber s qualifications to sit on our board include his experience as a CEO and business leader and his extensive experience developing and commercializing industrial biotechnology products.

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Christopher Ryan, Ph.D. has served as President and Chief Operating Officer of the company since June 2011, having previously served the company as its Executive Vice President, Business Development since June 2009. Prior to joining the company, he co-founded NatureWorks LLC in 1997. Dr. Ryan served as Chief Operating Officer for NatureWorks from 2008 to 2009 and Chief Technology Officer for NatureWorks from 2005 to 2008, where he was involved in the development and commercialization of that company s new biobased polymer from lab-scale production in 1992 through the completion of a $300 million world-scale production facility. Prior to 1992, Dr. Ryan served for four years in Corporate R&D for specialty chemical company HB Fuller Company. He has over 20 years of experience in strategic leadership, business development and research and product development in biobased materials. Dr. Ryan holds a Ph.D. in organic chemistry from the University of Minnesota, a B.S. in chemistry from Gustavus Adolphus College and completed the Management of Technology program at the University of Minnesota.

David Glassner, Ph.D. has served as Executive Vice President, Technology, of the company since October 2009, where he leads the company s isobutanol technology and engineering development. From March 2009 to September 2009, he was Vice President, Technology, and from July 2007 through February 2009 he was Vice President, Bioprocessing and Engineering, of the company. Prior to joining the company, he led the development of novel yeast biocatalysts for the production of lactic acid and ethanol, and the development of lactic acid, lactide and polylactide technology at NatureWorks LLC from 2000 to 2007. Prior to NatureWorks, from 1993 to 1999 he was Biofuels Technology Manager at the National Renewable Energy Laboratory where he led the development of cellulosic processing technology and the construction of the biomass to ethanol process development unit. Previously, Dr. Glassner was Director of Bioprocess Development at MBI International, where he led the development of a lactic acid pilot plant and developed patented processes for producing lactic acid, succinic acid, acetone, ethanol and butanol. Dr. Glassner holds Ph.D., M.S. and B.S. degrees in chemical engineering from Michigan State University.

Mark Smith has served as Chief Financial Officer of the company since November 2008. Prior to joining the company, Mr. Smith served as Chief Financial Officer of Replidyne, Inc., from March 2006 to February 2009 where he played a leadership role in completing its initial public offering and executing its strategic sale to Cardiovascular Systems, Inc. Prior to joining Replidyne, Mr. Smith was an officer at Nabi Biopharmaceuticals, from August 1999 to March 2006, serving as Senior Vice President, Finance, and Chief Financial Officer from April 2001 to March 2006. Prior to joining Nabi Biopharmaceuticals, Mr. Smith was an officer at Neuromedical Systems, Inc., where he served as Vice President, Finance and Administration and Chief Financial Officer from March 1998 to July 1999. He previously served in various financial executive capacities at Genzyme Corporation from 1996 to 1998, most recently as Group Controller. From 1991 to 1996 Mr. Smith worked in various financial management capacities at Genetrix, Inc., most recently as Chief Financial Officer prior to its sale to Genzyme in 1996. He previously was an accountant at Price Waterhouse (now PricewaterhouseCoopers) in both Australia and the US. Mr. Smith holds a B.A. in accounting from Canberra College of Advanced Education.

Brett Lund, J.D., M.B.A. has served as Executive Vice President, General Counsel and Secretary of the company since 2007. Before joining the company, from 2004 to 2007 he served as Chairman of the legal, intellectual property and licensing group and biotechnology licensing manager for Syngenta Biotechnology, Inc. s biofuels business. At Syngenta, Mr. Lund led the management of intellectual property, in-licensing, out-licensing, research collaborations and strategic alliances. Prior to Syngenta, he served as Associate General Counsel for Ford Motor Company, Inc. s Wingcast subsidiary. Mr. Lund was previously a corporate attorney at the law firm of Cooley Godward Kronish LLP, where he represented numerous companies regarding intellectual property licensing, initial public offerings, venture capital financing, mergers and acquisitions, securities, strategic alliances and related transactions. Mr. Lund holds a J.D. from Duke Law School, an M.B.A. from Duke University s Fuqua School of Business and a B.A. in political science from the University of California, San Diego. He is a Certified Licensing Professional by the Licensing Executives Society and admitted to practice law in California and North Carolina.

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David Black has served as one of the company s Executive Vice Presidents, Upstream Business Development since September 2010 and served as a Co-Managing Director of Gevo Development since September 2009. From 2007 to 2009, Mr. Black was a Co-Managing Partner of ClearDevelopment Partners, LLC, a clean energy development firm he co-founded. In 2005, he co-founded the biofuels company ASAlliances Biofuels, LLC, or ASAB, with Mr. Slaney for the purpose of developing and operating ethanol plants. He served as ASAB s Chief Executive Officer from 2005 to 2006. Prior to co-founding ASAB, Mr. Black was a partner at Deloitte & Touche, where he served as the co-head of Deloitte s national corporate finance management consulting practice. Mr. Black holds an M.B.A. from Southern Methodist University and a B.S. in finance from Arizona State University.

Michael Slaney, J.D. has served as one of the company s Executive Vice Presidents, Upstream Business Development since September 2010 and served as a Co-Managing Director of Gevo Development since September 2009. From 2007 to 2009, Mr. Slaney was a Co-Managing Partner of ClearDevelopment Partners, LLC, a clean energy development firm he co-founded. In 2005, he co-founded the biofuels company ASAB with Mr. Black for the purpose of developing and operating ethanol plants. He served as ASAB s Chief Operating Officer from 2005 to 2006. Prior to co-founding ASAB, Mr. Slaney was a partner in the M&A and corporate finance departments of Akin Gump Strauss Hauer & Feld LLP. Mr. Slaney holds a J.D. from Indiana University and a B.S. in accounting and business administration from the University of Kansas.

Shai Weiss has served as a director of the company since 2007 and was appointed chairman of the board of directors in September 2010. Mr. Weiss led the formation of Virgin Green Fund I, L.P., where he has been a partner since 2007. Prior to forming Virgin Green Fund, he held several management positions at ntl:Telewest (now Virgin Media, Inc.), including Managing Director of Consumer Products from 2004 to 2006, Integration Director for the merger between ntl, Inc. and Telewest Global, Inc. from 2005 to 2006, Director of Operations for the ntl Group from 2003 to 2004 and Director of Financial Planning for the Consumer division from 2002 to 2003. In his work as Managing Director of Consumer Products, Mr. Weiss was responsible for the development of internet, telephone and television for the consumer division and the Virgin.net broadband internet service provider. As director of operations for the ntl Group, he was responsible for major operational and business development projects, joint ventures and development of relationships with strategic partners. Prior to joining ntl:Telewest, Mr. Weiss organized the European office of the early-stage technology venture fund Jerusalem Venture Partners, L.P. in 2000, and was an associate with Morgan Stanley s hi-tech mergers and acquisitions and corporate finance teams from 1997 to 2000. Mr. Weiss holds an M.B.A. from Columbia University and a B.B.A. from City University of New York, Baruch College in business and finance. We believe Mr. Weiss s qualifications to sit on our board include his extensive experience as a business leader and venture capitalist and his experience in advising growth-focused companies with respect to strategic direction and business transactions.

Carlos A. Cabrera has served as a director of the company since June 2010. Since December 2011, Mr. Cabrera has also served as Executive Co-Chairman of Ivanhoe Energy, a publicly traded international heavy-oil development and production company. He has also served as a director of Ivanhoe Energy since May 2010. From December 2009 to November 2011, he served as President and Chief Executive Officer of the National Institute of Low Carbon and Clean Energy, or NICE, a wholly owned subsidiary of the Shenhua Group, a major Chinese coal company. At NICE, Mr. Cabrera led efforts to invent, acquire and develop technologies to reduce the environmental and climate impact of producing energy from coal. From January 2009 to July 2009, he served as Chairman of UOP LLC, a subsidiary of Honeywell International, Inc. From November 2005 to January 2009, Mr. Cabrera served as UOP s President and Chief Executive Officer, where he oversaw all of UOP s operations and helped grow the company s revenue from $850 million when he assumed the role of CEO to $2 billion in 2008. From January to October 2005, Mr. Cabrera served as UOP s Senior Vice President, Process Technology and Equipment, where he led UOP s development in the refining and petrochemicals sectors. Mr. Cabrera s previous roles at UOP include Senior Vice President, Process Technology and Equipment, Senior Vice President, Refining and Petrochemicals, Vice President, Corporate Business Development and Ventures, and Vice President and General Manager, Refining. Mr. Cabrera holds an M.B.A. in business from the University of Chicago and a B.S. in chemical engineering from the University of Kentucky. We believe Mr. Cabrera s qualifications to sit on our board include his broad technical and management experience in the

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refining, chemicals and fuels industries and his experience structuring joint ventures and leading acquisition activities in these fields.

Ganesh M. Kishore, Ph.D. has served as a director of the company since 2008. Since 2011, Dr. Kishore has also served as a director of Evolva Holding SA and as a director of Kaiima, where he currently serves as a member of the advisory board and the Compensation Committee. Between 2002 and 2007, he served as a director of Embrex, Inc., serving as a member of the Compensation Committee and Nominations Committee during that time. Since April 2007, he has served as Chief Executive Officer of Malaysian Life Sciences Capital Fund, where he oversees fund management, investment portfolio management and governance of companies in which Malaysian Life Sciences Capital Fund has made investments. Since January 2009, he has also served as President and Chief Executive Officer of K Life Sciences, LLC where he provides advisory services to life science businesses. Between April 2007 and December 2008, Dr. Kishore served as a Managing Director of Burrill & Company, where his responsibilities included fund management, fund raising and governance of companies in which Burrill & Company invested. Prior to joining Burrill & Company, Dr. Kishore served as Chief Biotechnology Officer at E. I. du Pont de Nemours and Company from 2005 to 2007, where he was responsible for overall biotechnology leadership for DuPont s life science businesses. Previously, he was Vice President, Technology, and Chief Technology Officer for DuPont s Agriculture and Nutrition Division from 2002 to 2005. In his time at DuPont, Dr. Kishore focused on research and development related to biotechnology. Before joining DuPont, Dr. Kishore held several positions between 1980 and 2000 at Monsanto Company, including Co-President, Nutrition and Consumer Sector, and Assistant Chief Scientist/Chief Biotechnologist. His contributions include the discovery, development and commercialization of agricultural biotechnology products such as ROUNDUP READY SOY, the development of a manufacturing process for Nutrasweet® and aiding in transforming Monsanto into a leading food and nutrition company. Dr. Kishore co-founded the plant biotechnology and informatics company Metahelix Life Sciences Pvt Ltd in India, Mogene LC in St. Louis, Missouri and Abunda in San Francisco, California. He serves or has served on the boards of numerous nonprofit institutions, including the School of Nutrition and Policy at Tufts University, the St. Louis RCGA and the National Research Advisory Board of Washington University at St. Louis. He is also a member of the American Association for the Advancement of Science. Dr. Kishore holds a Ph.D. in biochemistry from the Indian Institute of Science, an M.S. in biochemistry from the University of Mysore and a B.S. in physics and chemistry from the University of Mysore. We believe Dr. Kishore s qualifications to sit on our board include his years of experience as an executive in the field of agricultural biotechnology and his experience in advising and managing startup companies.

Gary W. Mize has served as a director of the company since September 2011. Since October 2009, Mr. Mize has held the position as partner and owner at MR & Associates. Mr. Mize served as president of Rawhide Energy LLC, an ethanol company, from April 2007 to April 2009. Mr. Mize also served as non-executive chairman at Ceres Global AG, a Canadian public company that serves as a vehicle for agribusiness investments, from December 2007 to April 2010. Mr. Mize has also served Noble Group, Hong Kong, as Global Chief Operating Officer from July 2003 to December 2005 and Executive Director from December 2005 to January 2006. Previously, he was president of the Grain Processing Group at ConAgra Foods, Inc., president and CEO of ConAgra Malt and held various positions at Cargill, Inc. Mr. Mize holds a BA in Business and Marketing from Michigan State University. Mr. Mize brings international business experience to the board having previously held expatriate positions in Switzerland, Brazil and Hong Kong. We believe Mr. Mize s qualifications to sit on our Board include his international experience, coupled with more than 35 years of experience in agribusiness.

Bruce A. Smith has served as a director of the company since June 2010. Since January 2012, Mr. Smith has also served as a director of Ventech Engineers, Inc., a fully integrated engineering and procurement services company for the petroleum industry. Since December 2011, he has also served as a director and Chief Executive Officer of One Cypress Energy, a private crude logistics and marketing company. Since July 2010, he has also served as a member of the supervisory board of LyondellBasell Industries N.V., a publicly traded independent chemical company. Mr. Smith served as Chairman of Tesoro Corp. from 1996 until June 2010, and from 1995 until May 2010 he served as Tesoro s President and Chief Executive Officer. Between 1992 and 1995, Mr. Smith held positions as Tesoro s Chief Operating Officer, Executive Vice President, Exploration and Production, and

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Chief Financial Officer. Under Mr. Smith s leadership, Tesoro went from a small integrated oil company to a Fortune 100 refining and marketing company with a global supply chain and 650,000 barrels per day of production in the western US. From March 2002 to February 2008, Mr. Smith also served as a director of Noble Energy Corp., a publicly traded oil exploration and production company, where he served on the Audit, Compensation and Corporate Governance and Nominating Committees, including service as chair of the Audit Committee in 2005 and 2006 and chair of the Compensation Committee in 2003 and 2004. Mr. Smith holds an M.B.A. in finance from the University of Kansas and a B.A. in biology from Westminster College. We believe Mr. Smith s qualifications to sit on our board include his extensive senior leadership experience in the refining and marketing industry, his substantial management background and his previous experience serving as a director and chairman of the audit and compensation committees of a publicly traded company.

Stacy J. Smith has served as a director of the company since June 2010. Since November 2011, Mr. Smith has also served as a director of Autodesk, Inc. He is also Senior Vice President, Finance, at Intel Corp., a position he has held since 2010, as well as Chief Financial Officer, a position he has held since 2007. Previously, he was Intel s Assistant Chief Financial Officer from 2006 to 2007, and Vice President, Finance and Enterprise Services and Chief Information Officer from 2004 to 2006, where he was responsible for Intel s Information Technology Group. From 2002 to 2004, Mr. Smith was Intel s Vice President, Sales and Marketing Group, and General Manager of Intel Europe, Middle East and Africa, where he was responsible for product sales and marketing across that region. Before then, he served in various finance positions at Intel, where he has been employed since 1988, working in the US, Asia, Europe and Latin America. Mr. Smith holds an M.B.A. in finance from the University of Texas and a B.A. in finance from the University of Texas. Mr. Smith brings global business leadership experience to the board from his current position as Senior Vice President, Finance, and Chief Financial Officer of Intel Corporation. This experience, coupled with Mr. Smith s experience serving for over 19 years in various finance and senior management positions for Intel, supports the board s efforts in overseeing and advising on strategy and financial matters, including financial reporting.

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, CO 80112, and our telephone number is (303) 858-8358.

Website Access to SEC Filings

We are subject to the reporting requirements under the Securities Exchange Act of 1934, as amended (the Exchange Act). Consequently, we are required to file reports and information with the SEC, including reports on the following forms: annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act. These reports and other information concerning us may be accessed through the SEC s website at http://www.sec.gov and on our website at www.gevo.com. Such filings are placed on our website as soon as reasonably practical after they are filed with the SEC. Any information contained in, or that can be accessed through our website, is not incorporated by reference into, nor is it in any way part of, this Report.

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Item 1A. Risk Factors

You should carefully consider the risks described below before investing in our publicly-traded securities. The risks described below are not the only ones facing us. Our business is also subject to the risks that affect many other companies, such as competition, technological obsolescence, labor relations, general economic conditions, geopolitical changes and international operations. Additional risks not currently known to us or that we currently believe are immaterial also may impair our business operations and our liquidity. The risks described below could cause our actual results to differ materially from those contained in the forward-looking statements we have made in this Report, the information incorporated herein by reference and those forward-looking statements we may make from time to time.

Certain Risks Relating to our Business and Strategy

We are a development stage company with a history of net losses, and we may not achieve or maintain profitability.

We have incurred net losses since our inception, including losses of $48.2 million, $40.1 million, $19.9 million in 2011, 2010 and 2009, respectively. As of December 31, 2011, we had an accumulated deficit of $134.6 million. We expect to incur losses and negative cash flow from operating activities for the foreseeable future. We are a development stage company and, to date, our revenues have been extremely limited and we have not generated any revenues from the sale of isobutanol. Prior to September 2010, our revenues were primarily derived from government grants and cooperative agreements. Since the completion of the Agri-Energy acquisition in September 2010, we have generated revenue from the sale of ethanol and related products, and we expect to continue to generate revenue from the sale of all such products that are produced prior to the completion of the retrofit of the Agri-Energy Facility. If our existing grants and cooperative agreements are canceled prior to the expected end dates or we are unable to obtain new grants and cooperative agreements, our revenues could be adversely affected. Furthermore, we expect to spend significant amounts on further development of our technology, acquiring or otherwise gaining access to ethanol plants and retrofitting them for isobutanol production, marketing and general and administrative expenses associated with our planned growth and management of operations as a public company. In addition, the cost of preparing, filing, prosecuting, maintaining and enforcing patent, trademark and other intellectual property rights and defending ourselves against claims by others that we may be violating their intellectual property rights may be significant.

In particular, over time, the costs of the lawsuit with Butamax and our counterclaim, alleging patent infringement relating to the production of isobutanol, may become significant (as described in Part I, Item 3 of this Report). 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 this period, 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.

Our planned retrofits of the ethanol production facilities in Luverne, Minnesota and Redfield, South Dakota will be our first commercial retrofits, and, as a result, our production of isobutanol could be delayed or we could experience significant cost overruns in comparison to our current estimates.

In September 2010, we acquired ownership of an ethanol production facility in Luverne, Minnesota and in June 2011, we acquired access to a second ethanol production facility in Redfield, South Dakota pursuant to our joint venture with Redfield. We intend to retrofit both facilities to produce isobutanol. Cost overruns or other unexpected difficulties could cause the retrofits to cost more than we anticipate, which could increase our need for such funding. Such funds may not be available when we need them, on terms that are acceptable to us or at all, which could delay our initial commercial production of isobutanol. If additional funding is not available to us, or not available on terms acceptable to us, it could force us to use significantly more of our own funds than planned, limiting our ability to acquire access to or retrofit additional ethanol plants. Such a result could reduce the scope of our business plan and have an adverse effect on our results of operations.

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There is no guarantee we will be able to maintain Agri-Energy s historical revenues and results from operations, and Agri-Energy s historical financial statements will not be a strong indicator of our future earnings potential.

While we remain a development stage company, Agri-Energy operates a commercial ethanol facility in Luverne, Minnesota, which generates revenues from sales of ethanol. There is no guarantee that we will be able to maintain Agri-Energy s historical levels of revenue or results from operations. We plan to retrofit the Agri-Energy Facility to produce isobutanol, and our future profitability depends on our ability to produce and market isobutanol, not on continued production and sales of ethanol. Because the risks involved in our isobutanol production are different from those involved with operating an ethanol production facility, Agri-Energy s financial results prior to the completion of the planned retrofit to isobutanol production will not be a reliable indicator of our future earnings potential. Furthermore, our planned retrofit will require a significant amount of time. While we believe the facility will be able to continue ethanol production during most of the modification and retrofit process, there is no guarantee that this will be the case and we may need to significantly reduce or halt ethanol production during the modification and/or retrofit. In addition, the retrofit of the Agri-Energy Facility will be subject to the risks inherent in the build-out of any manufacturing facility, and we may not be able to produce isobutanol at the volumes, rates and costs we expect following the retrofit. While we believe we will have the ability to reverse the retrofit and switch between ethanol and isobutanol production, the Agri-Energy Facility may fail to perform as expected following completion of the retrofit. If we are unable to continue ethanol production during the modification and/or retrofit process or if we are unable to produce isobutanol at the volumes, rates and costs we expect and are unable to switch back to ethanol production, we would be unable to match the facility s historical economic performance and our business, financial condition and results of operations would be materially adversely affected.

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

As of the date of this Report, we have not produced commercial quantities of isobutanol and we may not be successful in doing so. The production of isobutanol requires multiple integrated steps, including:

- obtaining the plant feedstocks;
- treatment with enzymes to produce fermentable sugars;
- fermentation by organisms to produce isobutanol from the fermentable sugars;
- distillation of the isobutanol to concentrate and separate it from other materials;
- purification of the isobutanol; and
- storage and distribution of the isobutanol.

Our future success depends on our ability to produce commercial quantities of isobutanol in a timely and economic manner. Our biocatalysts have not yet produced commercial volumes of isobutanol. While we have produced isobutanol using our biocatalysts at the demonstration facility, such production was not at full scale. We have focused the majority of our research and development efforts on producing isobutanol from dextrose, and challenges remain in achieving substantial production volumes with other sugars, like corn mash. The risk of contamination and other problems rise as we increase the scale of our isobutanol production. If we are unable to successfully manage these risks, we may encounter difficulties in achieving our target isobutanol production yield, rate, concentration or purity at a commercial scale, which could delay or increase the costs involved in commercializing our isobutanol production. In addition, we have never sourced large quantities of feedstocks and we have no experience storing and/or distributing significant volumes of isobutanol. The technological and logistical challenges associated with each of the processes involved in production, sale and distribution of isobutanol are extraordinary, and we may not be able to resolve any difficulties that arise in a timely or cost

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effective manner, or at all. Even if we are successful in developing an economical process for converting plant feedstocks into commercial quantities of isobutanol, we may not be able to adapt such process to other biomass raw materials, including cellulosic biomass.

Neither we nor ICM have ever built (through retrofit or otherwise) or operated a commercial isobutanol facility. We assume that we understand how the engineering and process characteristics of the one MGPY demonstration facility will scale up to larger facilities, but these assumptions may prove to be incorrect. Accordingly, we cannot be certain that we can manufacture isobutanol in an economical manner in commercial quantities. If our costs to build large-scale commercial isobutanol facilities are significantly higher than we expect or if we fail to manufacture isobutanol economically on a commercial scale or in commercial volumes, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

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

Our strategy currently includes accessing and retrofitting, either independently or with potential development partners, existing ethanol facilities for the production of large quantities of isobutanol for commercial distribution and sale. We have acquired one 22 MGPY ethanol production facility and acquired access to one 50 MGPY ethanol production facility pursuant to our joint venture with Redfield. We plan to acquire additional production capacity to enable us to produce and sell over 350 MGPY of isobutanol in 2015. We may not find development partners with whom we can implement this growth strategy, and we may not be able to identify facilities suitable for joint venture, acquisition or lease. Even if we successfully identify a facility suitable for efficient retrofitting, we may not be able to acquire access to such facility in a timely manner, if at all. The owners of the ethanol facility may reach an agreement with another party, refuse to consider a joint venture, acquisition or lease, or demand more or different consideration than we are willing to provide. In particular, if the profitability of ethanol production increases, plant owners may be less likely to consider modifying their production, and thus may be less willing to negotiate with us or agree to allow us to retrofit their facilities for isobutanol production. We may also find that it is necessary to offer special terms, incentives and/or rebates to owners of ethanol facilities that allow us to access and retrofit their facilities before our production technology has been proven on a commercial scale. Even if the owners of the facility are interested in reaching an agreement that grants us access to the plant, negotiations may take longer, or cost more, than we expect, and we may never achieve a final agreement. Further we may not be able to raise capital on acceptable terms, or at all, to finance our joint venture, acquisition, participation or lease of facilities. Even if we are able to access and retrofit several facilities, we may fail to access enough capacity to be commercially viable or meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. For example, under the terms of our international off-take and distribution agreement with Sasol, we are required to pay certain shortfall fees if we are not able to supply Sasol with certain minimum quantities of product. Failure to acquire access to sufficient capacity in a timely manner and on favorable terms may slow or stop our commercialization process, which could have a material adverse effect on our business, financial condition and results of operations.

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

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

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

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

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

Though our initial retrofit design includes the capability to switch between isobutanol and ethanol production, we may be unable to successfully revert to ethanol production after we begin retrofit of an ethanol facility, or the facility may produce ethanol less efficiently or in lower volumes than it did before the retrofit. Thus, if we fail to achieve commercial levels of isobutanol production at a retrofitted facility, we may be unable to rely on ethanol production as an alternative revenue source, which could have a material adverse effect on our prospects.

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

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

Even if we secure access to sufficient volumes of feedstock, the facilities we retrofit for isobutanol production may fail to perform as expected. The equipment and subsystems installed during the retrofit may never operate as planned. Our systems may prove incompatible with the original facility, or require additional modification after installation. Our biocatalyst may perform less efficiently than it did in testing, if at all. Contamination of plant equipment may require us to replace our biocatalyst more often than expected, or cause our fermentation process to yield undesired or harmful by-products. Likewise, our feedstock may contain contaminants like wild yeast, which naturally ferments feedstock into ethanol. The presence of contaminants, such as wild yeast, in our feedstock could reduce the purity of the isobutanol that we produce and require us to invest in more costly isobutanol separation processes or equipment. Unexpected problems may force us to cease or delay production and the time and costs involved with such delays may prove prohibitive. Any or all of these risks could prevent us from achieving the production throughput and yields necessary to achieve our target annualized production run rates and/or to meet the volume demands or minimum requirements of our customers, including pursuant to definitive supply or distribution agreements that we may enter into, which may subject us to monetary damages. For example, under the terms of our international off-take and distribution agreement with Sasol, we are required to pay certain shortfall fees if we are not able to supply Sasol with certain minimum quantities of product. Failure to achieve these rates or meet these minimum requirements, or achieving them only after significant additional expenditures, could substantially harm our commercial performance.

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

Even if we produce isobutanol at our targeted rates, we may be unable to produce isobutanol that meets customer specifications. 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 a commercial ethanol facility and no experience operating a commercial isobutanol facility. Accordingly, we may encounter significant difficulties operating at a commercial scale. We believe that our facilities will be able to continue producing ethanol during much of the retrofit process. We will need to successfully administer and manage this production. Though ICM and the employees of Agri-Energy and Redfield are experienced in the operation of ethanol facilities, and our future development partners or the entities that we acquire may likewise have such experience, we may be unable to manage ethanol producing operations, especially given the possible complications associated with a simultaneous retrofit. Once we complete a commercial retrofit, operational difficulties may increase, because neither we nor anyone else has 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 isobutanol production, or failure to otherwise manage our growth, may have a material adverse effect on our business, financial condition and results of operations.

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

While we have succeeded, at the demonstration plant, in reaching our commercial fermentation performance targets for isobutanol concentration, fermentation productivity and isobutanol yield, we have not accomplished this in a commercial plant environment. We have successfully achieved our commercial performance targets using our biocatalysts at our mini-plant, but have not yet done so at the demonstration or commercial plant scale. We are currently optimizing our yeast biocatalyst in anticipation of its integration into commercial facilities, but this process, if it succeeds at all, may take longer or cost more than expected. Our yeast biocatalyst may not be able to meet the commercial performance targets at a commercial-scale retrofitted plant in a timely manner, or ever. In addition, the risk of contamination and other problems exists at commercial-scale isobutanol production which could negatively impact our cost of production. If we encounter difficulties in scaling up our production, our commercialization of isobutanol and our business, financial condition and results of operations will be materially adversely affected.

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

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

No market currently exists for isobutanol as a fuel or fuel blendstock. Therefore, to gain market acceptance and successfully market our isobutanol to 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 fuel blendstock do not develop as we currently anticipate, or if we are unable to penetrate these markets successfully, our revenue and revenue growth rate, if any, could be materially and adversely affected.

We 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 fuel, no one has successfully created isobutylene on a commercial scale from biobased isobutanol. Therefore, to gain market acceptance and successfully market our isobutanol to chemical producers, we must show that our isobutanol can be converted into isobutylene at a commercial scale. As no company currently dehydrates commercial volumes of isobutanol into isobutylene, we must demonstrate the large-scale feasibility of the process and reach agreements with companies that are willing to invest in the necessary dehydration infrastructure. Failure to reach favorable agreements with these companies, or the inability of their plants to convert isobutanol into isobutylene at sufficient scale, will slow our development in the chemicals market and could significantly affect our profitability.

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

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

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

Commercialization of our isobutanol will require approvals from state and federal agencies. Before we can sell isobutanol as a fuel or fuel blendstock directly to large petroleum refiners, we must receive EPA fuel certification. We are currently conducting Tier 1 EPA testing, and the approval process may require significant

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time. Approval can be delayed for years, and there is no guarantee of receiving it. Additionally, California requires that fuels meet both its fuel certification requirements and a separate state low-carbon fuel standard. Any delay in receiving approval will slow or prevent the commercialization of our isobutanol for fuel markets, which could have a material adverse effect on our business, financial condition and results of operations.

Before any biofuel we produce receives a RIN we must register it with the EPA and receive approval that it meets specified regulatory requirements. Delay or failure in developing a fuel that meets the standards for advanced and cellulosic biofuels, or delays in receiving the desired RIN, will make our fuel less attractive to refiners, blenders, and other purchasers, which could harm our competitiveness.

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

Our isobutanol fermentation process utilizes a genetically modified organism which, when used in an industrial process, is considered a new chemical under the 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 UL 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 ethanol facilities and operate the retrofitted 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 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.

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

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

We have engaged in negotiations with a number of companies, and have agreed to preliminary terms regarding supplying isobutanol or the products derived from it to various companies for their use or further distribution, including LANXESS, Toray Industries, United Airlines, Inc. and TOTAL PETROCHEMICALS. However, as of December 31, 2011, we are not party to any final, definitive supply or distribution agreements for our isobutanol, other than our exclusive supply agreement with LANXESS, our international off-take and distribution agreement with Sasol, our commercial offtake agreement with Mansfield, and our contract from the DLA. We may be unable to negotiate final terms with 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, as we have yet to produce or supply commercial volumes of isobutanol to any customer, we have not demonstrated that we can meet the production levels contemplated in our current non-binding supply agreements. If our production scale-up proceeds more slowly than we expect, or if we encounter difficulties in successfully completing plant retrofits, potential customers, including those with whom we have current letters of intent, may be less willing to negotiate definitive supply agreements, or demand terms less favorable to us, and our performance may suffer.

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

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

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

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

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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 blendstock, forcing us to seek alternative purchasers.

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

We may face substantial delay in receiving FDA approval to sell iDGs as an animal feedstock, which could substantially increase our net production costs.

Most of the ethanol plants we initially plan to retrofit use dry-milled corn as a feedstock. We plan to sell, as an animal feedstock, 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. Before our iDGs can be used as an animal feedstock, the FDA must approve it as safe for livestock consumption. FDA testing and approval can take a significant amount of time, and there is no guarantee that we will ever receive such approval. If FDA approval is delayed or never obtained, or if we are unable to secure market acceptance for our iDGs , our net cost of production will increase, which may hurt our operating results.

Our development strategy relies heavily on our relationship with ICM.

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

Because ICM has designed over 50% of the current operating ethanol production capacity in the U.S., we believe that our exclusive alliance with ICM will provide us with a competitive advantage and allow us to more quickly achieve commercial-scale production of isobutanol. However, ICM may fail to fulfill its obligations to us under our agreements and under certain circumstances, such as a breach of confidentiality by us, can terminate the agreements. In addition, ICM may assign the agreements without our consent in connection with a change of control. Since adapting our technology to commercial-scale production of isobutanol and then retrofitting ethanol plants to use our technology is a major part of our commercialization strategy, losing our exclusive alliance with ICM would slow our technological and commercial development. It could also force us to find a new contractor with less experience than ICM in designing and building ethanol plants, or to invest the time and resources necessary to retrofit plants on our own. Such retrofits may be less successful than if performed by ICM engineers, and retrofitted plants might operate less efficiently than expected. This could substantially hinder our

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ability to expand our production capacity, and could severely impact our performance. If ICM fails to fulfill its obligations to us under our agreements and our competitors obtain access to ICM s expertise, our ability to realize continued development and commercial benefits from our alliance could be affected. Accordingly, if we lose our exclusive alliance with ICM, if ICM terminates or breaches its agreements with us, or if ICM assigns its agreements with us to a competitor of ours or to a third party that is not willing to work with us on the same terms or commit the same resources, our business and prospects could be harmed.

We may 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.

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

To date, we have funded our operations primarily through equity offerings, including our initial public offering in February 2011, and borrowings under our secured debt financing arrangements. Based on our current plans and expectations, we will require additional funding to achieve our goal of producing and selling over 350 million gallons of isobutanol in 2015. 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. Currently, we are party to a lawsuit with Butamax alleging patent infringement relating to the production of isobutanol (as described further in Part I, Item 3 of this Report). 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. We may also choose to seek additional capital sooner than required due to favorable market conditions or strategic considerations.

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

- the timing of, and costs involved in developing our technologies for commercial-scale production of isobutanol;
- the timing of, and costs involved in accessing existing ethanol plants;
- the timing of, and costs involved in retrofitting the plants we access with our technologies;
- the costs involved in an establishing an enhanced yeast seed train;
- the cost of operating; maintaining and increasing production capacity of the retrofitted plants;
- our ability to negotiate agreements supplying suitable biomass to our plants, and the timing and terms of those agreements;
- the timing of, and the costs involved in developing adequate storage facilities for the isobutanol we produce;
- our ability to gain market acceptance for isobutanol as a specialty chemical, gasoline blendstock and as a raw material for the production of hydrocarbons;

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

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

- 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. If needed funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate:

- our research and development activities;

- our plans to access and/or retrofit existing ethanol facilities;

- our production of isobutanol at retrofitted plants; and/or

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

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

We may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale or issuance of equity, warrants or convertible debt securities, your ownership interest will be diluted, and the terms 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 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 and licensing agreements with third parties, we may have to relinquish valuable rights to our technologies, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our development and commercialization efforts.

Our quarterly operating results may fluctuate in the future. As a result, we may fail to meet or exceed the expectations of 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 elsewhere in this Report. Accordingly, the results of any prior quarterly or annual periods should not be relied upon as indications of our future operating performance.

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 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.

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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. The significance and relative impact of these factors on the price of plant feedstocks is difficult to predict, especially without knowing what types of plant feedstock materials we may need to use.

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

The ethanol facilities we plan to retrofit to produce isobutanol, including the Agri-Energy Facility in Luverne, Minnesota, and the Redfield Facility in Redfield, South Dakota, use significant amounts of natural gas to produce ethanol. After retrofit with our GIFT® technology, these facilities will continue to require natural gas to produce isobutanol. Accordingly, our business is dependent upon natural gas supplied by third parties. Should the price of natural gas increase, our performance could suffer. Likewise, disruptions in the supply of natural gas could have a material impact on our business and results of operations.

Fluctuations in petroleum prices and customer demand patterns may reduce demand for biofuels and biobased 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 biobased alternatives.

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

We sell distiller s grains as a co-product from the production of ethanol at the Agri-Energy Facility in Luverne, Minnesota and we also plan to sell the iDGs that will be produced as a co-product of our commercial isobutanol production. Distiller s grains and iDGs compete with other animal feed products, and decreases in the prices of these other products could decrease the demand for and price of distiller s grains and iDGs . If the price of distiller s grains and iDGs decreases, our revenue from the sale of distiller s grains and iDGs could suffer, which could have a material adverse effect on our financial condition.

To the extent that we produce ethanol at accessed plants before commencing isobutanol production, we will be vulnerable to fluctuations in the price of and cost to produce ethanol.

We believe that the ethanol production facilities we access, including the Agri-Energy Facility in Luverne, Minnesota, will continue to produce ethanol during most of the retrofit process. In most cases, we expect to obtain income from this ethanol production. 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. Many of these risks, including fluctuations in feedstock costs and natural gas costs, are identical to risks we will face in the production of isobutanol. 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.

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 concerning the petroleum industry. 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

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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. 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 demand for biofuels to decline and deter investment in the research and development of biofuels. Market uncertainty regarding future policies may also affect our ability to develop new biofuels products or to license our technologies to third parties. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our biofuels business, financial condition and results of operations. Our other potential bioindustrial products may be subject to additional regulations.

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

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

If appropriate opportunities become available, we expect to acquire businesses, assets, technologies or products to enhance our business in the future. In connection with any future acquisitions, we could:

- 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 Agri-Energy, we have not engaged in acquisitions in the past, and do not have experience in managing the integration process. Therefore, we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. Acquisitions may also require us to record goodwill, non-amortizable intangible assets that will be subject to impairment testing on a regular basis and potential periodic impairment charges, incur amortization expenses related to certain intangible assets and incur large and immediate write-offs and restructuring and other related expenses, all of which could harm our operating results and financial condition. 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 any of our acquisitions and are unable to efficiently operate as a combined organization, our business, financial condition and results of operations may be materially adversely affected.

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

If appropriate opportunities become available, we expect to enter into joint ventures with the owners of existing ethanol production facilities in order to acquire access to additional isobutanol production capacity. We currently anticipate that in each such joint venture, the ethanol producer would contribute access to its existing ethanol production facility and we would be responsible for retrofitting such facility to produce isobutanol. Upon completion of the retrofit, and in some cases the attainment of certain performance targets, both parties to the

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joint venture would receive a portion of the profits from the sale of isobutanol, consistent with our business model. In connection with these joint ventures, we could incur substantial debt to fund the retrofit of the accessed facilities and we could assume significant liabilities.

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

- difficulties negotiating joint venture agreements with favorable terms and establishing relevant performance metrics;
- difficulties completing the retrofits of the accessed facilities using our integrated fermentation technology;
- the inability to meet applicable performance targets related to the production of isobutanol;
- difficulties obtaining the permits and approvals required to produce and sell our products in different geographic areas;
- complexities associated with managing the geographic separation of accessed facilities;
- diversion of management attention from ongoing business concerns to matters related to the joint ventures;
- difficulties maintaining effective relationships with personnel from different corporate cultures; and
- the inability to generate sufficient revenue to offset retrofit costs.

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

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

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

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

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

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

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

Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U.S. and other countries. We have adopted a strategy of seeking patent protection in the U.S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. As such, as of December 31, 2011, we exclusively licensed rights to 74 issued patents and filed patent applications in the U.S. and in various foreign jurisdictions, and we owned rights to approximately 243 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 five 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

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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 potential passage of patent reform legislation by the U.S. Congress and from legal precedent as handed down by the U.S. Court of Appeals for the Federal Circuit and the U.S. Supreme Court, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the U.S. and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to the validity of any patents that may issue and the potential for blocking patents coming into force at some future date. Accordingly, we cannot ensure that any of our currently filed or future patent applications will result in issued patents, or even if issued, predict the scope of the claims that may issue in our and other companies patents. 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) that 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.

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 also may 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.

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

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

If any other party has filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference 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, an interference may result in the loss of certain claims. Even successful interference outcomes 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.

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

The various bioindustrial markets in which we plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property-dependent industries, including the renewable energy industry, have employed intellectual property litigation as a means to gain an advantage over their competitors. As a result, we may be required to defend against claims of intellectual property infringement that may be asserted by our competitors against us and, if the outcome of any such litigation is adverse to us, it may affect our ability to compete effectively. Currently, we are defending against a lawsuit filed by Butamax, which alleges that we have infringed two patents for certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells.

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

- stop selling, incorporating, manufacturing or using our products that use the subject intellectual property;
- obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all;
- redesign those products or processes, such as our process for producing isobutanol, that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible; or

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

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

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

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

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

We 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.

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

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

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

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

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

We may face substantial competition in the markets for isobutanol, plastics, fibers, rubber, 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 and solvents and blendstock markets.

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

In the production of isobutanol we face competition from DuPont, which has announced plans to develop and market isobutanol through Butamax, a joint venture with BP. Additionally, a number of companies including Cathay Industrial Biotech, Ltd., Green Biologics Ltd., METabolic Explorer, S.A., TetraVitae Bioscience, Inc. and Cobalt Technologies, Inc. are developing n-butanol production capability from a variety of renewable feedstocks.

In the plastics, fibers, rubber 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

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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 more adept at marketing their production. Additionally, one small company in France, Global Bioenergies, S.A., is pursuing the production of isobutylene from renewable carbohydrates directly. Since conversion of isobutanol to butenes such as isobutylene is a key step in producing many plastics, fibers, rubber and other polymers from our isobutanol, this direct production of renewable isobutylene, if successful, could limit our opportunities in these markets.

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

In the production of other cellulosic biofuels, key competitors include Shell Oil, BP, DuPont-Danisco Cellulosic Ethanol LLC, Abengoa Bioenergy, S.A., POET, LLC, ICM, Mascoma, Range Fuels, Inbicon A/S, INEOS New Planet BioEnergy LLC, Coskata, Inc., Archer Daniels Midland Company, BlueFire Ethanol, Inc., KL Energy Corporation, ZeaChem Inc., Iogen Corporation, Qteros, Inc., AE Biofuels, Inc. and many smaller start-up 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 has developed a process for making gasoline and gasoline blendstocks and Kior, Inc. has developed a technology platform to convert biomass into renewable crude oil. Many other competitors may do so as well. In the jet fuel market, we will face competition from companies such as Synthetic Genomics, Inc., Solazyme, Inc., Sapphire Energy, Inc. and Exxon-Mobil Corporation that are pursuing production of jet fuel from algae-based technology. LS9 and others are also targeting production of jet fuels from renewable biomass. We may also face competition from companies working to produce jet fuel from hydrogenated fatty acid methyl esters. In the diesel fuels market, competitors such as Amyris and LS9 have developed technologies for production of alternative hydrocarbon diesel fuel.

In the plastics, fibers, rubber and other polymers markets and the hydrocarbon fuels market, we expect to face vigorous competition from existing technologies. The companies we may compete with may have significantly greater access to resources, far more industry experience and/or more established sales and marketing networks. Additionally, since we do not plan to produce most of these products directly, we depend on the willingness of potential customers to purchase and convert our isobutanol into their products. These potential customers generally have well-developed manufacturing processes and arrangements with suppliers of the chemical components of their products and may have a resistance to changing these processes and components. These potential customers frequently impose lengthy and complex product qualification procedures on their suppliers, influenced by consumer preference, manufacturing considerations such as process changes and capital 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.

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Satisfying these processes may take many months or years. If we are unable to convince these potential customers that our isobutanol is comparable or superior to the alternatives that they currently use, we will not be successful in entering these markets and our business will be adversely affected.

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

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

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

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

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

The terms of our loan and security agreements with Lighthouse and TriplePoint may restrict our ability to engage in certain transactions.

In December 2006, we entered into a loan and security agreement with Lighthouse and in August 2010, we entered into the Gevo Loan Agreement and the Original Agri-Energy Loan Agreement with TriplePoint, each of which has since been amended. Pursuant to the terms of these loan and security agreements, we cannot engage 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 or acquiring or merging with other entities unless we receive the prior approval of Lighthouse and/or TriplePoint. If Lighthouse and/or TriplePoint do not consent to any of the actions that we desire to take, we could be prohibited from engaging in transactions which could be beneficial to our business and our stockholders or could be forced to pay the outstanding balance

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of the loan(s) in full. As of December 31, 2011, the aggregate outstanding principal and final payment under our loan from Lighthouse was approximately $1.2 million, and the aggregate outstanding principal and final payments under the loans from TriplePoint was approximately $29.5 million.

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

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

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

We currently engage in hedging transactions to offset some of the effects of volatility in commodity prices. We expect to engage in similar transactions once we begin commercial isobutanol production. We generally follow a policy of using exchange-traded futures contracts to reduce our net position in agricultural commodity inventories and forward cash 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 the other party to a hedging contract defaults on its obligation. 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 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;
- 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.

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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.

Compliance with stringent laws and regulations may be time consuming and costly, which could adversely affect the commercialization of our biofuels products.

Any biofuels developed using our technologies will need to meet a significant number of regulations and standards, including regulations imposed by the U.S. Department of Transportation, the EPA, the FAA, various state agencies and others. Any failure to comply, or delays in compliance, with the various existing and evolving industry regulations and standards could prevent or delay the commercialization of any biofuels developed using our technologies and subject us to fines and other penalties.

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.

As isobutanol has not previously been used as a commercial fuel in significant amounts, its use subjects us to product liability risks, and we may have difficulties obtaining product liability insurance.

Isobutanol has not previously been used as a commercial fuel and research regarding its impact on engines and distribution infrastructure is ongoing. Though we intend to test our isobutanol further before its commercialization, 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. Furthermore, due to isobutanol s lack of commercial history as a fuel, we are uncertain as to whether we will be able to acquire product liability insurance on reasonable terms, or at all. 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.

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

In general, under Section 382 of the Internal Revenue Code of 1986, as amended, a corporation that undergoes an ownership change 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; hence our ability to utilize our net operating losses to offset income if we attain profitability may be limited. In addition, these loss carry-forwards expire at various times through 2031. We believe that it is more likely than not that these carry-forwards will not result in any material future tax savings.

Enacted and proposed changes in securities laws and regulations have increased our costs and may continue to increase our costs in the future.

In recent years, there have been several changes in laws, rules, regulations and standards relating to corporate governance and public disclosure, including the Dodd-Frank Wall Street Reform and Consumer Protection Act (the Dodd-Frank Act), the Sarbanes-Oxley Act of 2002 and various other new regulations promulgated by the SEC and rules promulgated by the national securities exchanges.

The Dodd-Frank Act, enacted in July 2010, expands federal regulation of corporate governance matters and imposes requirements on publicly-held companies, including us, to, among other things, provide stockholders with a periodic advisory vote on executive compensation and also requires compensation committee reforms and enhanced pay-for-performance disclosures. While some provisions of the Dodd-Frank Act are effective upon enactment, others will be implemented upon the SEC s adoption of related rules and regulations. The scope and timing of the adoption of such rules and regulations is uncertain and accordingly, the cost of compliance with the Dodd-Frank Act is also uncertain.

These and other new or changed laws, rules, regulations and standards are, or will be, subject to varying interpretations in many cases due to their lack of specificity. As a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies, which could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. Our efforts to comply with evolving laws, regulations and standards are likely to continue to result in increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. Further, compliance with new and existing laws, rules, regulations and standards may make it more difficult and expensive for us to maintain director and officer liability insurance, and we may be required to accept reduced coverage or incur substantially higher costs to obtain coverage. Members of our board of directors and our principal executive officer and principal financial officer could face an increased risk of personal liability in connection with the performance of their duties. As a result, we may have difficulty attracting and retaining qualified directors and executive officers, which could harm our business. We continually evaluate and monitor regulatory developments and cannot estimate the timing or magnitude of additional costs we may incur as a result.

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 requires us to evaluate and report on our internal control over financial reporting and have our chief executive officer and chief financial officer certify as to the accuracy and completeness of our financial reports. The process of implementing 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 implement and maintain adequate controls over our financial processes and reporting in the future. Even if we conclude that our internal control over financial reporting

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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 (GAAP), because of its inherent limitations, internal control over financial reporting may not prevent or detect fraud or misstatements. Failure to implement required new or improved controls, or difficulties encountered in their implementation, could harm our results of operations or cause us to fail to meet our reporting obligations.

Our management has concluded that there are no material weaknesses in our internal controls over financial reporting as of December 31, 2011. 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.

Certain Risks Related to Owning Our Stock

We are subject to anti-takeover provisions in our amended and restated certificate of incorporation and amended and restated bylaws and under Delaware law that could delay or prevent an acquisition of our 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 us. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws provide for a board of directors which 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 our company may be considered beneficial by some stockholders.

Concentration of ownership among our existing officers, directors and principal stockholders may prevent other stockholders from influencing significant corporate decisions and depress our stock price.

Our officers, directors and existing stockholders who held at least 5% of our common stock as of December 31, 2011 together control approximately 74.24% of our outstanding common stock with a single stockholder (Khosla Ventures I, L.P. and its affiliates (Khosla Ventures)) controlling approximately 27.38% of our outstanding common stock. If these officers, directors and principal stockholders or a group of our principal stockholders act together, they will be able to exert a significant degree of influence over our management and affairs and control matters requiring stockholder approval, including the election of directors and approval of mergers or other business combination transactions. The interests of this concentration of ownership may not always coincide with our interests or the interests of other stockholders. For instance, officers, directors and principal stockholders,

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acting together, could cause us to enter into transactions or agreements that we would not otherwise consider. Similarly, this concentration of ownership may have the effect of delaying or preventing a change in control of our company otherwise favored by our other stockholders. This concentration of ownership could depress our stock price.

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

The market price of shares of our common stock could be subject to wide fluctuations in response to many risk factors listed in this section, and others beyond our control, including:

- actual or anticipated fluctuations in our financial condition and operating results;
- the position of our cash and cash equivalents;
- actual or anticipated changes in our growth rate relative to our competitors;
- actual or anticipated fluctuations in our competitors operating results or changes in their growth rate;
- announcements of technological innovations by us, our partners or our competitors;
- announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- the entry into, modification or termination of licensing arrangements;
- the entry into, modification or termination of marketing arrangements;
- the entry into, modification or termination of research, development, commercialization, supply, off-take or distribution arrangements;
- additions or losses of customers;
- additions or departures of key management or scientific personnel;
- competition from existing products or new products that may emerge;
- issuance of new or updated research reports by securities or industry analysts;

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

litigation involving us, our general industry or both;

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

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

announcements or expectations of additional financing efforts;

sales of our common stock by us or our stockholders;

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

general market conditions in our industry; and

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

Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our

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common stock. In the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation. 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.

A significant portion of our total outstanding shares of common stock is restricted from immediate resale but may be sold into the market in the near future. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares of common stock intend to sell shares, could reduce the market price of our common stock. Our three largest stockholders as of December 31, 2011 beneficially own, collectively, approximately 47.2% of our outstanding common stock. If one or more of them were to sell a substantial portion of the shares they hold, it could cause our stock price to decline.

In addition, as of December 31, 2011, there were 3,261,739 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 of 1933, as amended (the Securities Act). Moreover, certain holders of our outstanding common stock (including shares of our common stock issuable upon the exercise of outstanding warrants) have rights, subject to some 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.

We registered 6,751,194 shares of common stock which are reserved for issuance under our stock incentive plans and our employee stock purchase plan. These shares can be freely sold in the public market upon issuance and once vested.

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

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

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

The terms of our loan and security agreement with Lighthouse currently prohibits us from paying cash dividends on our common stock and we do not anticipate paying cash dividends in the future. 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. Under the terms of the Amended Agri-Energy Loan Agreement, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if the following conditions are satisfied: (i) the retrofit of the Agri-Energy Facility is complete and the facility is producing commercial volumes of isobutanol, (ii) its net worth is greater than or equal to $10 million, and (iii) no event of default has occurred and is continuing under the agreement. Accordingly, even if we decide to pay cash dividends in the future, we may not be able to access cash generated by Agri-Energy if amounts are then outstanding pursuant to the Amended Agri-Energy Loan Agreement.

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Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

Our corporate headquarters and research and development laboratories, included in our Gevo, Inc. Segment, are located in Englewood, Colorado, where we occupy approximately 29,865 square feet of office and laboratory space. Our lease for this facility expires in July 2013. We believe that the facility that we currently lease is adequate for our needs for the immediate future and that, should it be needed, additional space can be leased to accommodate any future growth. Our subsidiary, Agri-Energy, included in our Gevo Development/Agri-Energy Segment, owns and operates an ethanol production facility in Luverne, Minnesota that we are currently retrofitting to isobutanol production. This production facility is on approximately 55 acres of land and contains approximately 50,000 square feet of building space. The production facility was originally constructed in 1998. The land and buildings are owned by Agri-Energy which has granted to TriplePoint a mortgage lien and security interest in such property to secure its obligations under the Amended Agri-Energy Loan Agreement with TriplePoint and its guaranty of Gevo, Inc. s obligations under the Gevo Loan Agreement with TriplePoint.

Item 3. Legal Proceedings

On January 14, 2011, Butamax filed a complaint (the Complaint) in the United States District Court for the District of Delaware, as Case No. 1:11-cv-00054-UNA, alleging that we are infringing one or more claims made in U.S. Patent No. 7,851,188 (the 188 Patent), entitled Fermentive Production of Four Carbon Alcohols. The 188 Patent, which has been assigned to Butamax, claims certain recombinant microbial host cells that produce isobutanol and methods for the production of isobutanol using such host cells. Butamax is seeking a declaratory judgment, injunctive relief, damages and costs, including attorney s fees and expenses. On March 25, 2011, we filed a response to the Complaint, denying Butamax s allegations of infringement and raising affirmative defenses.

On August 11, 2011, Butamax amended the Complaint to include allegations that we are infringing one or more claims made in U.S. Patent No. 7,993,889 (the 889 Patent), also entitled Fermentive Production of Four Carbon Alcohols. The 889 Patent, which has been assigned to Butamax, claims methods for producing isobutanol using certain recombinant yeast microorganisms expressing an engineered isobutanol biosynthetic pathway. On September 22, 2011, Butamax filed a motion requesting a preliminary injunction with respect to the alleged infringement of the 899 Patent. We believe that the amended Complaint is without merit and will continue to aggressively defend our freedom to operate.

On September 13, 2011, we filed an answer to the amended Complaint in which we asserted counterclaims against Butamax and DuPont for infringement of U.S. Patent No. 8,017,375, entitled Yeast Organism Producing Isobutanol at a High Yield and U.S. Patent No. 8,017,376, entitled Methods of Increasing Dihydroxy Acid Dehydratase Activity to Improve Production of Fuels, Chemicals, and Amino Acids, both of which were recently awarded to us by the USPTO. Our counterclaim seeks a declaratory judgment, injunctive relief, damages and costs, including attorney s fees and expenses.

On January 24, 2012, we filed an additional complaint in the United States District Court for the District of Delaware, as Case No. 1:99-mc-09999, alleging that Butamax and DuPont are infringing one or more claims made in U.S. Patent No. 8,101,808 (the 808 Patent) entitled Recovery of Higher Alcohols from Dilute Aqueous Solutions. The 808 Patent claims methods to produce a C3-C6 alcohol for example, isobutanol through fermentation and to recover that alcohol from the fermentation medium. We are seeking a declaratory judgment, injunctive relief, damages and costs, including attorney s fees and expenses.

Item 4. Mine Safety Disclosures

Not Applicable.

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PART II

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

Market for Common Stock

Our common stock has been traded on the NASDAQ Global Market under the symbol GEVO since February 9, 2011. The following table sets forth, for the period indicated, the high and low sales prices for our common stock, as reported by the NASDAQ Global Market, for the periods indicated below:

	Common Stock Price 2011	
	High	Low
Second Quarter	26.36	12.79
Third Quarter	18.75	5.44
Fourth Quarter	8.86	5.18

Holders of Record

The last sale price of our common stock on January 31, 2012, as reported by the NASDAQ Global Market, was $8.665 per share. As of January 31, 2012, there were approximately 48 holders of record of our common stock. We believe that the number of beneficial owners is substantially greater than the number of record holders because a large portion of our common stock is held of record through brokerage firms in street name.

Dividends

No cash dividends have been paid on our common stock to date, nor do we anticipate paying dividends in the foreseeable future.

Equity Compensation Plan Information

The information required by Item 201(d) of Regulation S-K will be included in the definitive proxy statement for our 2012 annual meeting of stockholders or an amendment to this Report to be filed with the SEC within 120 days after our fiscal year ended December 31, 2011, and is incorporated into this Report by reference.

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

Sales of Unregistered Securities

None.

Use of Proceeds from Public Offering of Common Stock

On February 14, 2011, we closed our initial public offering. The offer and sale of 8,222,500 shares of our common stock in the initial public offering were registered under the Securities Act pursuant to a registration statement on Form S-1 (File No. 333-168792), which was declared effective by the SEC on February 8, 2011. The principal underwriters of the initial public offering were UBS Securities LLC, Piper Jaffray & Co. and Citigroup Global Markets Inc. We raised approximately $110.4 million in net proceeds after deducting underwriting discounts and commissions of $8.6 million and other offering costs of $4.3 million. There has been no material change in the planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC pursuant to Rule 424(b). We have and intend to continue to invest these funds in demand deposit accounts or short-term investment-grade securities.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

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Item 6. Selected Financial Data

The following selected historical consolidated financial data should be read together with our consolidated financial statements and the accompanying notes appearing in Part II, Item 8 of this Report, and Management s Discussion and Analysis of Financial Condition and Results of Operations. The selected historical consolidated financial data in this section is not intended to replace our historical consolidated financial statements and the accompanying notes. Our historical results are not necessarily indicative of our future results.

We derived the consolidated statements of operations data for 2011, 2010 and 2009 and the consolidated balance sheet data as of December 31, 2011 and 2010 from our audited consolidated financial statements in Part II, Item 8 of this Report. The consolidated statement of operations data for 2008 and 2007 and the consolidated balance sheet data as of December 31, 2009 and 2008 has been derived from our audited consolidated financial statements not included in this Report. The balance sheet data as of December 31, 2007 have been derived from our unaudited consolidated financial statements not included in this Report. The data should be read in conjunction with the consolidated financial statements, related notes, and other financial information included herein. For purposes of the disclosure contained in this section, the company, we, us and our refer to Gevo, Inc. and Gevo Development, as the context requires, and include Agri-Energy following the completion of its acquisition on September 22, 2010.

Consolidated statements of operations data:	**Years Ended December 31,**				
	2011	**2010**	**2009**	**2008**	**2007**
Revenues:					
Ethanol sales and related products	$ 63,742,000	$ 14,765,000	$	$	$
Licensing revenue		138,000			
Grant and research and development program revenue	807,000	1,493,000	660,000	208,000	275,000
Total revenues	64,549,000	16,396,000	660,000	208,000	275,000
Cost of goods sold	(60,588,000)	(13,446,000)			
Gross margin	3,961,000	2,950,000	660,000	208,000	275,000
Operating expenses:					
Research and development	(19,753,000)	(14,820,000)	(10,508,000)	(7,376,000)	(3,699,000)
Selling, general and administrative	(28,890,000)	(23,643,000)	(8,699,000)	(6,065,000)	(2,601,000)
Lease termination costs					(894,000)
Loss on abandonment or disposal of assets	(11,000)		(22,000)	(78,000)	(243,000)
Total operating expenses	(48,654,000)	(38,463,000)	(19,229,000)	(13,519,000)	(7,437,000)
Loss from operations	(44,693,000)	(35,513,000)	(18,569,000)	(13,311,000)	(7,162,000)
Other (expense) income:					
Interest expense	$ (3,577,000)	$ (2,374,000)	$ (1,103,000)	$ (1,385,000)	$ (140,000)
Interest and other income	85,000	108,000	277,000	154,000	76,000
Loss from change in fair value of warrant liabilities(1)	(29,000)	(2,333,000)	(490,000)		
Other (expense) income net	(3,521,000)	(4,599,000)	(1,316,000)	(1,231,000)	(64,000)
Net loss	(48,214,000)	(40,112,000)	(19,885,000)	(14,542,000)	(7,226,000)
Deemed dividend amortization of beneficial conversion feature on Series D-1 convertible preferred stock	(1,094,000)	(2,778,000)			

Net loss attributable to Gevo, Inc. common stockholders	$ (49,308,000)	$ (42,890,000)	$ (19,885,000)	$ (14,542,000)	$ (7,226,000)

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Consolidated statements of operations data:	Years Ended December 31, 2011	2010	2009	2008	2007
Net loss per share of common stock attributable to Gevo, Inc. stockholders, basic and diluted	$ (2.15)	$ (37.44)	$ (18.07)	$ (13.83)	$ (7.40)
Weighted-average number of common shares used in computing net loss per share of common stock, basic and diluted	22,909,916	1,145,500	1,100,294	1,051,848	976,909

(1) On January 1, 2009, we changed the manner in which we account for warrants that are exercisable into preferred stock, as described in Note 11 to our consolidated financial statements.

Consolidated balance sheet data:	As of December 31, 2011	2010	2009	2008	2007
Cash and cash equivalents	$ 94,225,000	$ 15,274,000	$ 21,240,000	$ 9,635,000	$ 63,000
Total assets	133,030,000	51,609,000	26,383,000	13,094,000	2,391,000
Fair value of warrant liabilities		2,034,000	982,000		
Secured long-term debt, including current portion, net of debt discounts	28,243,000	20,432,000	7,701,000	8,178,000	1,579,000
Total liabilities	40,893,000	31,650,000	11,300,000	9,936,000	3,029,000
Accumulated deficit	(134,635,000)	(85,327,000)	(42,437,000)	(23,137,000)	(8,595,000)
Total stockholders equity (deficit)	92,137,000	19,959,000	15,083,000	3,158,000	(638,000)

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

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and related notes that appear elsewhere in this Report. In addition to historical financial information, the following discussion contains forward-looking statements that involve risks and uncertainties. Our actual results may differ materially from those discussed below. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this Report, particularly in Risk Factors.

Overview

We are a renewable chemicals and next generation biofuels company focused on the development and commercialization of alternatives to petroleum-based products. Our initial commercialization and development efforts are focused on isobutanol, a four carbon alcohol produced from renewable sources. Without any modification, our isobutanol has applications as a specialty chemical and a fuel blendstock. Our isobutanol can also be converted into a wide variety of hydrocarbons which form the basis for the production of many products, including rubber, plastics, fibers, and other polymers and hydrocarbon fuels, including jet and diesel fuel.

In September 2009, Gevo, Inc. formed Gevo Development to develop isobutanol production assets using GIFT®. Gevo Development has a flexible business model and aims to secure access to existing ethanol capacity either through joint venture or direct acquisition.

For financial reporting purposes, we have determined that we have two operating segments. Our Gevo, Inc. Segment is responsible for all research and development activities related to the future production of isobutanol, maintaining and protecting our intellectual property portfolio, developing future markets for our isobutanol and providing corporate oversight services. Our Gevo Development/Agri-Energy Segment is currently responsible for the production of ethanol and related products.

At December 31, 2011, we are considered to be in the development stage as our primary activities, since incorporation, have been conducting research and development, business development, business and financial planning, establishing our facilities, recruiting personnel and raising capital. Successful completion of our research and development program, and ultimately, the attainment of profitable operations are dependent upon future events, including completion of our development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, obtaining adequate financing to complete our development activities, obtaining adequate financing to acquire access to and complete the retrofit of ethanol plants to isobutanol production, market acceptance and demand for our products and services, and attracting and retaining qualified personnel.

Initial Public Offering

On February 14, 2011, we completed our initial public offering issuing 8,222,500 shares of common stock at an offering price of $15.00 per share, resulting in net proceeds of $110,408,000, after deducting underwriting discounts and commissions and other offering costs. Upon the closing of the initial public offering, our outstanding shares of convertible preferred stock were automatically converted into 16,329,703 shares of common stock and our outstanding convertible preferred stock warrants were automatically converted into common stock warrants to purchase a total of 398,032 shares of common stock.

Agri-Energy Acquisition

In September 2010, we acquired the Agri-Energy Facility, a 22 MGPY ethanol production facility in Luverne, Minnesota that we are currently retrofitting to produce isobutanol. We paid a purchase price of $20.6 million for property, plant and equipment and, in addition, we acquired and paid $4.9 million for working capital. We paid the aggregate purchase price with available cash reserves and by borrowing $12.5 million from TriplePoint (as described in Management s Discussion and Analysis of Financial Condition and Results of

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Operations Liquidity and Capital Resources Secured long-term debt). We project capital costs for the retrofit of the Agri-Energy Facility to be $22 million, which includes equipment necessary in order to switch between ethanol and isobutanol production plus additional capital which will be used to increase the potential production capacity of the facility. In addition to the retrofit of the Agri-Energy Facility to produce isobutanol, in July 2011 we made the strategic decision to invest in an enhanced yeast seed train at the facility to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants, maintain direct oversight over our yeast material and provide on-site yeast production. We estimate capital costs for the enhanced yeast seed train to be approximately $10 million. We expect to begin commercial production of isobutanol at the Agri-Energy Facility in the first half of 2012.

We currently derive revenue from the sale of ethanol, distiller s grains and other related products produced as part of the ethanol production process and we expect that we will continue to record revenue from these sources during the period of the retrofit of the Agri-Energy Facility to isobutanol production. Continued ethanol production during the retrofit will allow us to retain local staff for the future operation of the plant, maintain the equipment and generate cash flow. As the production of ethanol is not our intended business, we will continue reporting our operating results as a development stage company during the retrofit process and only intend to report revenue from the sale of ethanol on an interim basis until we begin to generate revenue from sales of isobutanol. Accordingly, the historical operating results of Agri-Energy and the operating results reported during the retrofit to isobutanol production will not be indicative of future operating results for Agri-Energy or Gevo, Inc. once isobutanol production commences.

Ethanol plant operations are highly dependent on commodity prices, especially prices for corn, ethanol, distiller s grains and natural gas. Because the market prices of these commodities are not always correlated, at times ethanol production may be unprofitable. As commodity price volatility poses a significant threat to our margin structure, we have implemented a risk management strategy focused on securing favorable operating margins. We monitor market prices of corn, natural gas and other input costs relative to the prices for ethanol and distiller s grains in Luverne, Minnesota, the location of the Agri-Energy Facility. We also seek to create offsetting positions by using derivative instruments, fixed-price purchases and sales contracts or a combination of strategies. Our primary focus is not to manage general price movements, such as seeking to minimize the cost of corn consumed, but rather to acquire corn, net of exchange-traded contracted amounts, at prices that reflect the then-current pricing for ethanol sold. By using a variety of risk management tools and hedging strategies we believe we will be able to maintain a disciplined approach to risk.

Revenues, Cost of Goods Sold and Operating Expenses

Revenues

We currently derive revenue from the sale of ethanol, distiller s grains, other products produced as part of the ethanol production process and we expect that we will continue to record revenue from these sources during the period of the retrofit of the Agri-Energy Facility to isobutanol production.

Our grant and research and development program revenue consists of the following: (i) revenues relating to government research grants and cooperative agreements; (ii) research services; and (iii) the procurement of our products for purposes of certification and testing.

Cost of Goods Sold and Gross Margin

Our cost of goods sold includes costs directly associated with our ethanol production process such as costs for direct materials, direct labor and certain plant overhead costs. Direct materials consist of corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in the operation of the Agri-Energy Facility. Plant overhead costs primarily consist of plant utilities and plant depreciation. Cost of goods sold is mainly affected by the cost of corn and natural gas. Corn is the most significant raw material cost. We purchase natural gas to power steam generation in the ethanol production process and to dry the distiller s grains. We enter into forward purchase contracts and exchange-traded futures

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contracts associated with corn. Accordingly, our cost of goods sold also includes gains or losses from our forward purchase contracts and changes in fair value on our exchange-traded futures contracts, other than those designated under the normal purchases and normal sales scope exception. See discussion of accounting for derivatives in our Critical Accounting Policies and Estimates below.

Our gross margin is defined as our total revenues less our cost of goods sold.

Research and Development

Our research and development costs consist of expenses incurred to identify, develop and test our technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expense includes personnel costs (including stock-based compensation), consultants and related contract research, facility costs, supplies, depreciation and amortization expense on property, plant and equipment used in product development, license fees paid to third parties for use of their intellectual property and patent rights and other overhead expenses incurred to support our research and development programs. Research and development expenses also include upfront fees and milestone payments made under licensing agreements and payments for sponsored research and university research gifts to support research at academic institutions.

Selling, General and Administrative

Selling, general and administrative expense consists of personnel costs (including stock-based compensation), consulting and service provider expenses (including patent counsel-related costs), legal fees, marketing costs, corporate insurance costs, occupancy-related costs, depreciation and amortization expenses on property, plant and equipment not used in our product development programs or recorded in cost of goods sold, travel and relocation and hiring expenses. Following completion of our initial public offering in February 2011, we experienced a significant increase in certain selling, general and administrative expenses, such as, additional compliance costs to operate as a public company. We expect to continue to incur these costs to comply with the corporate governance, internal control and similar requirements applicable to public companies, as well as increased costs for insurance, costs related to the hiring of additional personnel and payment to outside consultants, attorneys and accountants.

We also record selling, general and administrative expenses for the operations of the Agri-Energy Facility that include administrative and oversight, labor, insurance and other operating expenses.

Critical Accounting Policies and Estimates

Our consolidated financial statements have been prepared in conformity with GAAP and include our accounts and the accounts of our wholly owned subsidiaries, Gevo Development and Agri-Energy. The preparation of our consolidated financial statements requires us to make estimates, assumptions and judgments that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the applicable periods. Management bases its estimates, assumptions and judgments on historical experience and on various other factors that are believed to be reasonable under the circumstances. Different assumptions and judgments would change the estimates used in the preparation of our consolidated financial statements, which, in turn, could change the results from those reported. Our management evaluates its estimates, assumptions and judgments on an ongoing basis.

While our significant accounting policies are more fully described in Note 1 to our consolidated financial statements included in this Report, we believe that the following accounting policies are the most critical to aid you in fully understanding and evaluating our reported financial results and reflect the more significant judgments and estimates that we use in the preparation of our consolidated financial statements.

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Stock-Based Compensation

Our stock-based compensation expense includes expenses associated with stock-based awards granted to employees, board members and non-employees. The estimated fair value of stock options is determined on the date of grant and recorded to expense over the requisite service period, generally the vesting period. We estimate the fair value of stock option awards using the Black-Scholes option-pricing model which requires judgments to be made, including estimating: (i) the expected life of an award; (ii) stock price volatility; and (iii) prior to our initial public offering in February 2011, estimating the fair value of our common stock.

The Black-Scholes option-pricing model calculates the estimated fair value of stock options using the following inputs: (i) expected life; (ii) expected volatility; (iii) risk-free interest rate; (iv) expected dividend yield rate; (v) exercise price; and (vi) closing price of our common stock on the date of grant.

Due to our limited history of grant activity, we use the simplified method to estimate the expected stock option life permitted by the SEC as the arithmetic average of the total contractual term of the option and its vesting period. We calculate the estimated volatility rate based on selected comparable public companies, due to a lack of historical information regarding the volatility of our stock price. We will continue to analyze the historical stock price volatility assumption as more historical data for our common stock becomes available. The risk-free interest rate assumption is based on the U.S. Treasury yield curve in effect on the date of grant for instruments with a term similar to the expected life of the related option. No dividends are expected to be paid. Forfeitures have been estimated based upon our historical and expected forfeiture experience.

The estimated fair value of a stock option using the Black-Scholes option-pricing model is impacted significantly by changes in a company s stock price. For example, all other assumptions being equal, the estimated fair value of a stock option will increase as the closing price of a company s stock increases, and vice versa. Prior to the closing of our initial public offering, we were a private company and, as such, we were required to estimate the fair value of our common stock. In the absence of a public trading market, we determined a reasonable estimate of the then-current fair value of our common stock for purposes of granting stock-based compensation based on multiple criteria. We determined the fair value of our common stock utilizing methodologies, approaches and assumptions consistent with the American Institute of Certified Public Accountants Practice Aid, Valuation of Privately-Held-Company Equity Securities Issued as Compensation. After the closing of our initial public offering in February 2011, the fair value of our common stock is no longer an estimate as it is based upon the closing price of our stock on the NASDAQ Global Market on the date of grant

Revenue Recognition

Following consummation of the Agri-Energy acquisition on September 22, 2010, we record revenue from the sale of ethanol and related products. We recognize revenue when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title transfer to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between us and our customers. In accordance with our agreements for the marketing and sale of ethanol and related products, commissions due to marketers are deducted from the gross sales price at the time payment is remitted. Ethanol and related products sales are recorded net of commissions.

Revenue related to our government research grants and cooperative agreements is recognized in the period during which the related costs are incurred, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding.

Other research and development program revenue consists of research services and the procurement of our products for purposes of certification and testing, such as that conducted by the USAF. Revenue from research services is recognized over the relevant performance period of the contract. Revenue from the procurement of our products for purposes of certification and testing is recognized upon the transfer of risk of loss and title to the customer.

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Cost of Goods Sold and Derivatives

Our activities expose us to a variety of market risks, including the effects of changes in commodity prices. These financial exposures are monitored and managed by our management as an integral part of our overall risk-management program. Our risk management program focuses on the unpredictability of financial and commodities markets and seeks to reduce the potentially adverse effects that the volatility of these markets may have on our cost of goods sold and operating results.

We enter into forward purchase contracts for corn to be used in the production of ethanol. Prior to January 1, 2011, we recorded forward purchase contracts as derivative assets or liabilities on our consolidated balance sheets at fair value. The changes in the fair value of these derivatives were recognized as a component of cost of goods sold in our consolidated statements of operations. Effective January 1, 2011, we elected the normal purchases and normal sales scope exception guidance of GAAP for our forward purchase contracts and, as a result, they were not marked to market during 2011. To qualify for the normal purchases and normal sales scope exception, a contract must provide for the purchase or sale of commodities in quantities that are expected to be used or sold over a reasonable period of time in the normal course of operations.

We also enter into exchange-traded futures contracts for corn as a means of managing exposure to changes in corn prices. These contracts are recorded as derivative assets or liabilities on our consolidated balance sheets at fair value. Changes in the fair value during a reporting period are recognized to cost of goods sold in our consolidated statements of operations.

Both our forward purchase and exchange-traded futures contracts are considered to be derivatives and they do not include any credit risk related contingent features. We have not entered into these derivative financial instruments for trading or speculative purposes, and we have not designated any of our derivatives as hedges for financial accounting purposes.

Impairment of Long-lived Assets

Our long-lived assets consist primarily of assets associated with the acquisition and retrofit of the Agri-Energy Facility. In accordance with the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 360, *Property, Plant, and Equipment*, we assess impairment of long-lived assets for recoverability when events or changes in circumstances indicate that their carrying amount may not be recoverable. Circumstances which could trigger a review include, but are not limited to: significant decreases in the market price of the asset; significant adverse changes in the business climate, legal or regulatory factors; accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset may not be recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets. Although our cash flow forecasts are based on assumptions that are consistent with our plans, there is significant exercise of judgment involved in determining the cash flow attributable to a long-lived asset over its estimated remaining useful life. As a result, the carrying amounts of our long-lived assets could be reduced through impairment charges in the future.

Given our current period cash flow combined with a history of operating losses, we evaluated the recoverability of the book value of our property, plant and equipment. We performed an undiscounted cash flow analysis, the results of which indicate that the sum of the undiscounted cash flows is substantially in excess of the book value of the property, plant and equipment. Accordingly, no impairment charges have been recorded during the period from June 9, 2005 (date of inception) to December 31, 2011.

We have not yet generated positive cash flows from operations and such cash flows may not materialize for a significant period in the future, if ever. Additionally, we may make changes to our business plan that will result in changes to the expected cash flows from long-lived assets. As a result, it is possible that future evaluations of long-lived assets may result in impairment.

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Result of Operations

Comparison of the years ended December 31, 2011 and 2010

	Year ended December 31, 2011	Year ended December 31, 2010	$ Increase (decrease)	% Change
Revenue:				
Ethanol sales and related products, net	$ 63,742,000	$ 14,765,000	$ 48,977,000	332%
Licensing revenue		138,000	(138,000)	N/A
Grant and research and development program revenue	807,000	1,493,000	(686,000)	(46%)
Total revenues	64,549,000	16,396,000	48,153,000	294%
Cost of goods sold	(60,588,000)	(13,446,000)	47,142,000	351%
Gross margin	3,961,000	2,950,000	1,011,000	34%
Operating expenses:				
Research and development	(19,753,000)	(14,820,000)	4,933,000	33%
Selling, general and administrative	(28,890,000)	(23,643,000)	5,247,000	22%
Loss on abandonment or disposal of assets	(11,000)		11,000	N/A
Total operating expenses	(48,654,000)	(38,463,000)	10,191,000	26%
Loss from operations	(44,693,000)	(35,513,000)	9,180,000	26%
Other (expense) income:				
Interest and other expense	(3,577,000)	(2,374,000)	1,203,000	51%
Interest and other income	85,000	108,000	(23,000)	(21%)
Loss from change in fair value of warrant liabilities	(29,000)	(2,333,000)	(2,304,000)	(99%)
Other expense net	(3,521,000)	(4,599,000)	(1,078,000)	(23%)
Net loss	(48,214,000)	(40,112,000)	8,102,000	20%
Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock	(1,094,000)	(2,778,000)	(1,684,000)	(61%)
Net loss attributable to Gevo, Inc. common stockholders	$ (49,308,000)	$ (42,890,000)	$ 6,418,000	15%

Revenues: The increase in ethanol sales and related products of $48,977,000, or 332%, is due to our acquisition of Agri-Energy on September 22, 2010. The decrease in grant and research and development program revenue of $686,000, or 46%, primarily relates to a grant award from the U.S. Department of Energy that ended in August 2010.

Cost of goods sold and gross margin: The increase in cost of goods sold of $47,142,000, or 351%, relates to our acquisition of Agri-Energy on September 22, 2010. Prior to our acquisition of Agri-Energy, we did not incur or report cost of goods sold.

Research and development: The increase in research and development expense of $4,933,000, or 33%, was primarily driven by increased operating expenses at our demonstration facilities and laboratory supplies and services used in our development efforts of $3,202,000 and increased payroll and related expenses, including stock-based compensation, of $2,416,000, partially offset by achievement of a research milestone under our licensing agreement with Cargill, for which we recorded $1,578,000 in expense during the year ended December 31, 2010. We also incurred increases in consulting, contractor and outside service provider expenses of $441,000. Research and development expense includes stock-based compensation expense of $1,045,000 and $682,000 for the year ended December 31, 2011 and 2010, respectively.

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Selling, general and administrative: The increase in selling, general and administrative expense of $5,247,000, or 22%, was primarily driven by increased payroll and related expenses, including relocation and recruiting expenses, of $3,025,000, increased litigation related costs of $2,897,000, increased legal, accounting, tax and public company filing and related fees of $1,770,000, increased public relations and corporate development costs of $1,014,000, increased business development consultant costs of $558,000 and increased administrative costs for Agri-Energy of $333,000, partially offset by a decrease in stock-based compensation of $3,916,000 and a decrease of $716,000 in management fees paid to CDP. Selling, general and administrative expense included stock-based compensation expense of $6,687,000 and $10,603,000 for the year ended December 31, 2011 and 2010, respectively. Included in stock-based compensation expense for the year ended December 31, 2011, is $3,488,000 related to the warrant issued to CDP whereby we recognized stock-based compensation based on the fair value of the warrant on September 22, 2010. We valued the warrant at $13,956,000 on September 22, 2010, and recognized 50% of this amount as stock-based compensation on September 22, 2010. We are recognizing the remaining 50% over the 24 month vesting period that began on September 22, 2010. Included in stock-based compensation expense for year ended December 31, 2010, is $7,851,000 related to the warrant issued to CDP.

Interest and other expense: Interest and other expense increased by $1,203,000, or 51%, due to the incurrence of additional debt in the third quarter of 2010 and the fourth quarter of 2011, higher interest rates on our secured long-term debt facility and higher amortization of debt discounts and debt issue costs related to our debt with Lighthouse and TriplePoint.

Loss from change in fair value of warrant liabilities: The decrease in loss from change in fair value of warrant liabilities of $2,304,000 related to the change in the fair value of our preferred stock warrants and the conversion of these warrants to common stock warrants upon the closing of our initial public offering on February 14, 2011. The preferred stock warrants were recorded as derivatives and recognized in our consolidated balance sheet as a liability through the closing date of our initial public offering. Upon the closing of our initial public offering and the conversion of the underlying preferred stock to common stock, all outstanding warrants to purchase shares of preferred stock converted into warrants to purchase shares of our common stock and were no longer considered to be derivatives.

Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock: The decrease in deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock of $1,684,000 related to our issuance of Series D-1 preferred stock between March and May of 2010. Following the closing of our initial public offering on February 14, 2011, no additional amortization of the beneficial conversion feature relating to our Series D-1 preferred stock has been recorded.

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Comparison of years ended December 31, 2010 and 2009

	Year Ended December 31, 2010	Year Ended December 31, 2009	$ Increase (decrease)	% Change
Revenue:				
Ethanol sales and related products	$ 14,765,000	$	$ 14,765,000	N/A
Licensing revenue	138,000		138,000	N/A
Grant revenue	1,493,000	660,000	833,000	126%
Total revenues	16,396,000	660,000	15,736,000	2,384%
Cost of Goods Sold	(13,446,000)		13,446,000	N/A
Gross Margin	2,950,000	660,000	2,290,000	347%
Operating Expenses:				
Research and development	(14,820,000)	(10,508,000)	4,312,000	41%
Selling, general and administrative	(23,643,000)	(8,699,000)	14,944,000	172%
Loss on abandonment or disposal of assets		(22,000)	(22,000)	N/A
Total operating expenses	(38,463,000)	(19,229,000)	19,234,000	100%
Loss from operations	(35,513,000)	(18,569,000)	16,944,000	91%
Other (expense) income:				
Interest expense	(2,374,000)	(1,103,000)	1,271,000	115%
Interest and other income	108,000	277,000	(169,000)	(61%)
Loss from change in fair value of warrant liabilities	(2,333,000)	(490,000)	1,843,000	376%
Other expense net	(4,599,000)	(1,316,000)	3,283,000	249%
Net loss attributable to Gevo, Inc. common stockholders	(40,112,000)	(19,885,000)	20,227,000	102%
Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock	(2,778,000)		2,778,000	N/A
Net loss attributable to Gevo, Inc. common stockholders	$ (42,890,000)	$ (19,885,000)	$ 23,005,000	116%

Revenues: The increase in ethanol sales and related products of $14,765,000 is due to our acquisition of Agri-Energy on September 22, 2010. The increase in grant revenue of $833,000, or 126%, primarily relates to additional awards from the U.S. Department of Agriculture and the Army Research Laboratory that commenced in the fourth quarter of 2009. The increase in licensing revenue of $138,000 relates to our licensing of certain materials.

Cost of goods sold and gross margin: The increase in cost of goods sold of $13,446,000 relates to our acquisition of Agri-Energy on September 22, 2010. Prior to our acquisition of Agri-Energy, we did not incur or report cost of goods sold. Cost of goods sold includes costs for direct labor, materials and certain plant overhead costs. Our gross margin is derived from our total revenues less our cost of goods sold.

Research and development: The increase in research and development expense of $4,312,000, or 41%, was primarily driven by increased payroll and related expenses of $971,000, increased stock-based compensation of $408,000, an increase in depreciation expense of $1,123,000, which includes depreciation of equipment at our demonstration facility, and achievement of milestones under our licensing agreement with Cargill for an increase of $646,000. Our overall research and development expense also reflected an increase in laboratory supplies and services of

$873,000 and an increase of $483,000 related to increased levels of consulting and contract research activity, including work under our contractor and development agreements with VIB, the California Institute of Technology, UCLA and Cargill, partially offset by a decrease in operating expenses at our demonstration plant at St. Joseph, Missouri in the amount of $303,000. Research and development expense includes stock-based compensation expense of $274,000 and $682,000 in 2009 and 2010, respectively.

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Selling, general and administrative: The increase in selling, general and administrative expense of $14,944,000, or 172%, was primarily driven by an increase in stock-based compensation expense of $9,934,000 and legal fees of $1,734,000. Selling, general and administrative expense included stock-based compensation expense of $671,000 and $10,603,000 in 2009 and 2010, respectively. Included in stock-based expense for the year ended December 31, 2010 is $7,851,000 related to the warrant issued to CDP and $774,000 related to the purchase of the 10% minority interest in Gevo Development from CDP, both of which are described in Notes 6 and 13 to our consolidated financial statements. The increase in legal fees related primarily to our acquisition of Agri-Energy, legal expenses to support our intellectual property positions and other general legal fees. We also incurred increased payroll and related expenses, including relocation and recruiting, but excluding stock-based compensation, of $1,398,000, increased our use of consultants resulting in an increased consulting expense of $519,000 and incurred higher management fees to CDP of $188,000. In addition, we reported increases in travel and related costs, public relations, and plant diligence costs of $866,000 in the aggregate.

Interest expense: Interest expense increased by $1,271,000, or 115%, due to the incurrence of additional debt, higher interest rates on our secured long-term debt facility and higher amortization of debt discounts and debt issue costs related to our debt with Lighthouse and TriplePoint. In August 2010, we paid off a portion of our Lighthouse debt, consisting of $5,000,000 in principal and $250,000 in final payment, which resulted in accelerating the recognition of $332,000 of debt discounts to non-cash interest expense.

Interest and other income: The decrease in interest and other income of $169,000, or 61%, is primarily due to $144,000 received in 2009 under a Colorado state incentive program related to local jobs creation in connection with our relocation from Pasadena, California to Englewood, Colorado.

Loss from change in fair value of warrant liabilities: The increase in loss from change in fair value of warrant liabilities of $1,843,000, or 376%, related to the change in the fair value of our preferred stock warrants, which were recorded as derivatives and recognized in our consolidated balance sheet as a liability during 2010.

Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock: The increase in deemed dividend amortization of beneficial conversion feature on Series D-1 convertible preferred stock of $2,778,000 related to our issuance of Series D-1 convertible preferred stock between March and May 2010.

Liquidity and Capital Resources

On February 14, 2011, we completed our initial public offering issuing 8,222,500 shares of common stock at an offering price of $15.00 per share, resulting in net proceeds of $110,408,000, after deducting underwriting discounts and commissions and other offering costs.

From inception to December 31, 2011, we have funded our operations primarily through the sale of preferred equity securities, borrowings under our secured debt financing arrangements, revenues earned and the net proceeds from our initial public offering. To date, we have not generated any revenues from the sale of isobutanol.

As of December 31, 2011, our cash and cash equivalents totaled $94,225,000. Based on our current level of operations and anticipated growth, we believe that our existing cash and cash equivalents on hand will provide funds for ongoing operations, planned capital expenditures and working capital requirements for at least the next 12 months. If we exceed planned capital expenditure to complete the retrofit of our Agri-Energy Facility to isobutanol production or other estimates to prepare for commercial production of isobutanol at our Agri-Energy Facility, we may need to raise additional capital through future equity or debt issuances. Possible future joint ventures, tolling arrangements or acquisitions involving ethanol plant assets for retrofit to isobutanol production are subject to our raising additional capital through future equity or debt issuances. Successful completion of our research and development program and the attainment of profitable operations are dependent upon future events, including completion of our development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, achieving market acceptance and demand for our products and services and attracting and retaining qualified personnel.

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We will require additional funding to achieve our goal of producing and selling over 350 million gallons of isobutanol in 2015.

The following table sets forth the major sources and uses of cash for each of the periods set forth below:

	Year ended December 31, 2011	Year ended December 31, 2010	Year ended December 31, 2009
Net cash used in operating activities	$ (33,611,000)	$ (20,896,000)	$ (16,099,000)
Net cash used in investing activities	$ (8,033,000)	$ (25,702,000)	$ (2,942,000)
Net cash provided by financing activities	$ 120,595,000	$ 40,632,000	$ 30,646,000

Operating Activities

Our primary uses for cash from operating activities are personnel-related expenses and research and development-related expenses including costs incurred under development agreements, for licensing of technology and for the operation of our demonstration facilities.

Cash used in operating activities of $33,611,000 in 2011 reflected our net loss of $48,214,000, partially offset by changes in operating assets and liabilities of $2,067,000 and non-cash charges totaling $12,536,000. Non-cash charges included stock-based compensation of $6,826,000, depreciation and amortization of $4,600,000, non-cash interest expense and amortization of debt discounts of $928,000, loss from change in derivatives of $142,000, and a loss from change in fair value of warrant liabilities of $29,000. The net source of cash from our operating assets and liabilities of $2,067,000 primarily reflected an increase in accounts payable and accrued expenses, including amounts payable to ICM for work performed on the retrofit of the Agri-Energy Facility.

Cash used in operating activities of $20,896,000 in 2010 reflected our net loss of $40,112,000 partially offset by non-cash charges totaling $16,233,000 and changes in operating assets and liabilities of $2,983,000. Non-cash charges included depreciation and amortization of $3,188,000, stock-based compensation of $10,511,000, loss from change in fair value of warrant liabilities of $2,333,000, and non-cash interest expense and amortization of debt discounts of $762,000, which were offset by a gain in derivative assets of $561,000. The net source of cash from our operating assets and liabilities of $2,983,000 primarily reflected accrued milestone payments under our Cargill license agreement that are payable in 2011 and 2012, an increase in the corn payable account at Agri-Energy and amounts accrued for deferred offering costs and work performed by ICM.

Cash used in operating activities of $16,099,000 in 2009 reflected our net loss of $19,885,000 partially offset by non-cash charges totaling $3,203,000 and changes in operating assets and liabilities of $583,000. Non-cash charges included depreciation and amortization of $1,511,000, stock-based compensation of $945,000, loss from change in fair value of warrant liabilities of $490,000, and non-cash interest expense and amortization of debt discounts of $235,000. The net source of cash from our operating assets and liabilities of $583,000 primarily reflected accrued milestone payments under our Cargill license agreement that were payable in 2010.

Investing Activities

In 2011, cash used in investing activities included $8,015,000 for capital expenditures, including $6,253,000 related to our ongoing retrofit of the Agri-Energy Facility to isobutanol production which is recorded as construction in progress.

In 2010, cash used in investing activities included $806,000 for capital expenditures and $24,936,000 related to the purchase and acquisition of Agri-Energy (aggregate cash purchase price of $25,521,000 less cash acquired of $585,000).

In 2009, cash used in investing activities was primarily related to $2,982,000 of capital expenditures, including $2,586,000 for construction of our demonstration facility in St. Joseph, Missouri.

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Financing Activities

In 2011, cash provided by financing activities was $120,595,000, primarily due to the gross proceeds from our initial public offering of $114,704,000, less payment of offering costs during the period of $1,692,000, gross borrowings from TriplePoint of $10,000,000, less principal repayments of $1,897,000 on our debt with Lighthouse.

In 2010, cash provided by financing activities was $40,632,000, primarily due to the net proceeds of $31,411,000 from the sale of Series D-1 preferred stock, gross borrowings from TriplePoint of $17,500,000, proceeds from the exercise of a preferred stock warrant of $592,000 less repayment of $5,000,000 of principal and $250,000 of final payment under our debt agreement with Lighthouse, payment of deferred offering costs relating to our initial public offering of $2,604,000 and payment of debt issue costs relating to our TriplePoint debt of $1,033,000.

In 2009, cash provided by financing activities was $30,646,000, primarily due to net proceeds of $31,154,000 from the sale of Series D preferred stock. In addition, we repaid a net amount of $508,000 under our secured debt arrangement with Lighthouse.

Agri-Energy Acquisition

In September 2010, we acquired the Agri-Energy Facility that we are currently retrofitting to produce isobutanol. We paid a purchase price of approximately $20.6 million. In addition, we acquired and paid $4.9 million for working capital. We paid the aggregate purchase price with available cash reserves and by borrowing $12.5 million under the Original Agri-Energy Loan Agreement with TriplePoint (as described below). We project capital costs for the retrofit of the Agri-Energy Facility to be $22 million, which includes equipment necessary in order to switch between ethanol and isobutanol production plus additional capital which will be used to increase the potential production capacity of the facility. In addition to the retrofit of the Agri-Energy Facility to produce isobutanol, in July 2011 we made the strategic decision to invest in an enhanced yeast seed train at the facility to accelerate the adoption of improved yeast at the Agri-Energy Facility and at future plants, maintain direct oversight over our yeast material and provide on-site yeast production. We estimate capital costs for the enhanced yeast seed train to be approximately $10 million. We expect to begin commercial production of isobutanol at the Agri-Energy Facility in the first half of 2012. While we believe we will have the ability to reverse the retrofit and switch between ethanol and isobutanol production, there is no guarantee that this will be the case and it is not our intent to do so.

Redfield Energy, LLC

On June 15, 2011, we entered into the Joint Venture Agreement with Redfield and executed the second amended and restated operating agreement of Redfield (together, the Joint Venture Documents). Under the terms of the Joint Venture Documents, we have agreed to work with Redfield to retrofit Redfield s approximately 50 MGPY ethanol production facility located near Redfield, South Dakota for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the Class G Units) to our wholly-owned subsidiary, Gevo Development, in exchange for a payment of $1,000. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield s 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time we anticipate consolidating Redfield s operations because we anticipate we will control the activities that are most significant to the entity.

We will be responsible for all costs associated with the retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. We anticipate

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that the Redfield Facility will continue its current ethanol production activities during much of the retrofit. Once the retrofit assets have been installed, the ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the Performance Testing Phase). During the Performance Testing Phase, we will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the Facility Payments). We have also agreed to maintain an escrow fund during the Performance Testing Phase as security for our obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) we will have the right to appoint a total of four members of Redfield s 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield s profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the Redfield Facility once commercial production of isobutanol has begun. Additionally, we will license the technology necessary to produce isobutanol at the facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, we will forfeit the Class G Units and lose the value of our investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 15, 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the retrofit of the Redfield Facility.

We have begun the project engineering and permitting process of the retrofit of the Redfield Facility. As of December 31, 2011, we have incurred $66,000 in costs for the retrofit of the Redfield Facility, which has been recorded on our balance sheet in deposits and other assets.

Cargill, Incorporated

During February 2009, we entered into a license agreement with Cargill to obtain certain biological materials and license patent rights to use yeast biocatalyst owned by Cargill. Under the agreement, Cargill has granted us an exclusive, royalty-bearing license, with limited rights to sublicense, to use the patent rights in a certain field, as defined in the agreement. The agreement contains five milestone payments totaling approximately $4,300,000 that are payable after each milestone is completed.

During 2009, two milestones were completed and we recorded the related milestone amounts, along with an up-front signing fee, totaling $875,000 to research and development expense. During March 2010, we completed milestone number three and recorded the related milestone amount of $2,000,000 to research and development

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expense at its present value amount of $1,578,000 because the milestone payment will be paid over a period greater than twelve months from the date it was incurred. At December 31, 2011, the present value of the liability, $924,000, was recorded in accounts payable and accrued expenses. Milestones number four and five included in the license agreement representing potential payments of up to $1,500,000 have not been met as of December 31, 2011 and no amount has been recorded as a liability for these milestones. Upon commercialization of a product which uses the Cargill biological material or is otherwise covered by the patent rights under this agreement, a royalty based on net sales is payable by us, subject to a minimum royalty amount per year, as defined in the agreement, and up to a maximum amount per year. We may terminate this agreement at any time upon 90 days written notice. Unless terminated earlier, the agreement remains in effect until the later of December 31, 2025 and the date that no licensed patent rights remain. The accretion of the liability was recorded to interest expense.

Sasol Chemical Industries Limited

On July 29, 2011, we entered into an international off-take and distribution agreement with Sasol to market and distribute renewable isobutanol globally. The agreement has an initial term of three years and appoints Sasol as a non-exclusive distributor of high-purity isobutanol in North and South America and as the exclusive distributor for high-purity isobutanol for solvent and chemical intermediate applications in the rest of the world. Beginning upon our first commercial sale of high-purity isobutanol, if Sasol desires to maintain its exclusive distribution rights, Sasol is obligated to either purchase certain minimum quantities of high-purity isobutanol or pay us applicable shortfall fees and we are obligated to either supply Sasol with certain minimum quantities of high-purity isobutanol or pay Sasol applicable shortfall fees. No amounts have been recorded under this agreement as of December 31, 2011.

Secured Long-Term Debt

Lighthouse Loan and Security Agreement. On December 18, 2006, we entered into a loan and security agreement, as amended, with Lighthouse. On August 6, 2010, we repaid $5,000,000 in outstanding principal, as well as $250,000 of the final payment, under the promissory note issued in connection with the loan and security agreement, using amounts borrowed pursuant to a loan and security agreement with TriplePoint, as well as available cash reserves. As of December 31, 2011, our outstanding principal balance on our loan with Lighthouse was $1,037,000. The promissory note bears interest at a rate of 12% per annum, required interest only payments during the year ended December 31, 2010, and requires principal plus interest repayments of equal amounts over the 18 months commencing January 1, 2011 and a final payment of $204,000 due on July 1, 2012.

Under the terms of the loan agreement, we are prohibited from granting a security interest in our intellectual property assets to any other entity until Lighthouse is paid in full, and Lighthouse maintains a security interest in the assets, including equipment and fixtures, financed by the proceeds of each original loan advance made under the loan agreement until such time as the loan is paid in full. The Lighthouse agreement does not contain financial ratio covenants, but does impose certain affirmative and negative covenants, which include prohibiting us from paying any dividends or distributions or creating any liens against the collateral as defined in the agreement, as amended. We cannot borrow any further amounts under our agreement with Lighthouse. At December 31, 2011, we were in compliance with the Lighthouse debt covenants.

Gevo Loan Agreement. In August 2010, concurrently with the execution of the agreement to acquire Agri-Energy in Luverne, Minnesota, Gevo, Inc. entered into the Gevo Loan Agreement with TriplePoint, pursuant to which we borrowed $5,000,000. The Gevo Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default, including, disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, or acquiring or merging with another entity, excluding Agri-Energy, unless we receive the prior approval of TriplePoint. The aggregate amount outstanding under the Gevo Loan Agreement bears interest at a rate equal to 13%, is subject to an end-of-term payment equal to 8% of the amount borrowed and is secured by substantially all of the assets of Gevo, Inc., other than our intellectual property. This loan is also secured by

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substantially all of the assets of Agri-Energy, LLC. Additionally, under the terms of each of (i) the Gevo Loan Agreement and (ii) Gevo, Inc. s guarantee of Agri-Energy s obligations under the Original Agri-Energy Loan Agreement described below, Gevo, Inc. is prohibited from granting a security interest in its intellectual property assets to any other entity until both TriplePoint loans are paid in full. The loan matures on August 31, 2014, and provides for interest-only payments during the first 24 months. An additional interest-only period of 6 months may be elected in the event that Gevo, Inc. begins producing isobutanol at its Agri-Energy Facility by June 30, 2012. We used the funds from this loan to repay a portion of our existing indebtedness with Lighthouse. At December 31, 2011, we were in compliance with the debt covenants under the Gevo Loan Agreement.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12,500,000 from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the loan and security agreement was amended to make Agri-Energy the borrower under the facility. This Original Agri-Energy Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default. The aggregate amount outstanding under the Original Agri-Energy Loan Agreement bears interest at a rate equal to 13% and is subject to an end-of-term payment equal to 8% of the amount borrowed. The loan is secured by the equity interests of Agri-Energy held by Gevo Development and substantially all the assets of Agri-Energy. The loan matures on September 1, 2014, and provides for interest-only payments during the first 24 months. An additional interest-only period of 6 months may be elected in the event that Gevo, Inc. begins producing isobutanol at its Agri-Energy Facility by June 30, 2012. The loan is guaranteed by Gevo, Inc. pursuant to a continuing guaranty executed by Gevo, Inc. in favor of TriplePoint, which is secured by substantially all of the assets of Gevo, Inc., other than its intellectual property. At December 31, 2011, we were in compliance with the debt covenants under the Original Agri-Energy Loan Agreement.

Amended Agri-Energy Loan Agreement. In October 2011, Agri-Energy entered into the Amended Agri-Energy Loan Agreement with TriplePoint. The Amended Agri-Energy Loan Agreement amends and restates the Original Agri-Energy Loan Agreement. The Amended Agri-Energy Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default. The Amended Agri-Energy Loan Agreement provides Agri-Energy with additional term loan facilities of up to $15,000,000 (which amount is in addition to the existing $12,500,000 term loan provided under the Original Agri-Energy Loan Agreement, which term loan remains in place under the Amended Agri-Energy Loan Agreement), the proceeds of which will be used to pay a portion of the costs, expenses, and other amounts associated with the retrofit of the Agri-Energy Facility to produce isobutanol. The loan matures on October 31, 2015 with the last monthly amortization payment due on the date of such advance. The aggregate amount outstanding under the New Loan bears interest at a rate of 11% and is subject to an end-of-term payment equal to 5.75% of the amount borrowed. The New Loan provides for interest-only payments through July 1, 2012 and an additional interest-only period of 6 months on the New Loan may be elected in the event that we have received net offering proceeds of at least $75 million from one or more secondary equity offerings by June 30, 2012. Any borrowings in excess of 50% of the amount incurred for the retrofit the Agri-Energy Facility, calculated as incurred in total by 6.5 months from the date of the advance, must be immediately repaid to TriplePoint. On October 20, 2011, Agri-Energy borrowed $10,000,000 under the Amended Agri-Energy Loan Agreement. On January 6, 2012, Agri-Energy borrowed an additional $5,000,000 under this facility, bringing the total borrowed under the New Loan at January 6, 2012 to $15,000,000. Upon our request and the additional approval of TriplePoint, we may borrow an additional $5,000,000 under the Amended Agri-Energy Loan Agreement increasing the maximum size of the New Loan to $20,000,000. At December 31, 2011, we were in compliance with the debt covenants under the Amended Agri-Energy Loan Agreement.

The Amended Agri-Energy Loan Agreement provides that Agri-Energy will secure all of its obligations under the Amended Agri-Energy Loan Agreement and any other loan documents by granting to TriplePoint a security interest in and lien upon all or substantially all of its assets. Gevo, Inc. has guaranteed Agri-Energy s obligations under the Amended Agri-Energy Loan Agreement. As additional security, concurrently with the execution of the Amended Agri-Energy Loan Agreement, (i) Gevo Development entered into a limited recourse continuing guaranty in favor of TriplePoint, (ii) Gevo Development entered into an amended and restated limited recourse membership interest pledge agreement in favor of TriplePoint, pursuant to which it pledged the

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membership interests of Agri-Energy as collateral to secure the obligations under its guaranty and (iii) Gevo, Inc. entered into an amendment to its security agreement with TriplePoint, which secures its guarantee of Agri-Energy s obligations (including up to $32,500,000 in term loans) under the Amended Agri-Energy Loan Agreement.

Additionally, concurrent with the execution of the Amended Agri-Energy Loan Agreement, we entered into a warrant agreement with TriplePoint pursuant to which TriplePoint is entitled to purchase up to 188,442 shares of our common stock, par value $0.01, on the terms and subject to the conditions set forth in the warrant agreement, at a price per share of $7.96, subject to adjustment. As of December 31, 2011, we have issued warrants to purchase 157,035 shares of our common stock under this warrant agreement. The warrants may be exercised until October 20, 2018.

Contractual Obligations and Commitments

The following summarizes the future commitments arising from our contractual obligations at December 31, 2011:

	Total	2012	2013	2014	2015	2016 and Thereafter
Secured long-term debt, including current portion (before debt discounts)(1)	$ 30,716,000	$ 4,458,000	$ 11,309,000	$ 11,456,000	$ 3,493,000	$
Cash interest payments on long-term debt(1)	6,824,000	3,410,000	2,374,000	890,000	150,000	
Operating leases(2)	797,000	505,000	292,000			
Base fee due to South Hampton Resources, Inc. (3)	238,000	150,000	88,000			
Payments due under Cargill license agreement (4)	1,000,000	1,000,000				
Total	$ 39,575,000	$ 9,523,000	$ 14,063,000	$ 12,346,000	$ 3,643,000	$

(1) Includes principal and final/end-of-term payments on our long-term debt as of December 31, 2011. With respect to the TriplePoint loans outstanding at December 31, 2011 under the Gevo Loan Agreement and the Original Agri-Energy Loan Agreement, an additional interest-only period of 6 months may be elected in the event that Gevo, Inc. is producing isobutanol at its Agri-Energy Facility by June 30, 2012. With respect to the TriplePoint loans outstanding at December 31, 2011 under the Amended Agri-Energy Loan Agreement, an additional interest-only period of 6 months may be elected in the event that we have received net offering proceeds of at least $75 million from one or more secondary equity offerings by June 30, 2012. If any or all of the additional interest-only periods are elected, the amounts shown during the years ended December 31, 2012 through 2016 will be different. See Secured long-term debt above for a description of our loans with TriplePoint. In January 2012, we borrowed an additional $5 million from TriplePoint under the Amended Agri-Energy Loan Agreement. For more information on these subsequent events, please see Secured long-term debt above.

(2) Our commitments for operating leases primarily relate to our leased facility in Englewood, Colorado.

(3) In accordance with our pilot plant processing agreement with South Hampton Resources, we are obligated to pay $12,500 per month for the remainder of the initial term of the agreement which ends in July 2013.

(4) During March 2010, we completed milestone number three under our license agreement with Cargill which is being paid as $2,000,000 over eight quarters beginning January 1, 2011.

The table above reflects only payment obligations that are fixed and determinable. The above amounts exclude potential payments to be made under our license and other agreements that are based on the achievement of future milestones or royalties on product sales.

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Off-Balance Sheet Arrangements

We did not have during the periods presented, and we do not currently have, any relationships with unconsolidated entities, such as entities often referred to as structured finance or special purpose entities, established for the purpose of facilitating off-balance sheet arrangements or other contractually narrow or limited purposes.

Recent Accounting Pronouncements

Refer to Note 1 in the accompanying notes to our consolidated financial statements for a discussion of recent accounting pronouncements, if any.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Interest Rate Risk

We had unrestricted cash and cash equivalents totaling $94,225,000 at December 31, 2011. These amounts were invested primarily in demand deposit checking and savings accounts and are held for working capital purposes. The primary objective of our investment activities is to preserve our capital for the purpose of funding our operations and we do not enter into investments for trading or speculative purposes. Accordingly, we believe we do not have material exposure to changes in fair value as a result of changes in interest rates. Declines in interest rates, however, will reduce future investment income. If overall interest rates fell by 10% in 2011, 2010 and 2009, our interest income would have declined by approximately $4,000, $11,000 and $13,000, respectively, assuming consistent investment levels.

The terms of our Lighthouse and TriplePoint long-term debt facilities provide for a fixed rate of interest upon advance, and therefore are not subject to fluctuations in market interest rates.

Commodity Price Risk

We produce ethanol and distiller s grains from corn and our business is sensitive to changes in the price of corn. The price of corn is subject to fluctuations due to unpredictable factors such as weather, corn planted and harvested acreage, changes in national and global supply and demand and government programs and policies. We use natural gas in the ethanol production process and, as a result, our business is also sensitive to changes in the price of natural gas. The price of natural gas is influenced by such weather factors as extreme heat or cold in the summer and winter, or other natural events like hurricanes in the spring, summer and fall. Other natural gas price factors include North American exploration and production, and the amount of natural gas in underground storage during both the injection and withdrawal seasons. Ethanol prices are sensitive to world crude oil supply and demand, crude oil refining capacity and utilization, government regulation and consumer demand for alternative fuels. Distiller s grains prices are sensitive to various demand factors such as numbers of livestock on feed, prices for feed alternatives and supply factors, primarily production by ethanol plants and other sources. We attempt to reduce the market risk associated with fluctuations in the price of corn by employing a variety of risk management and economic hedging strategies. Strategies include the use of forward purchase contracts and exchange-traded futures contracts.

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Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders of

Gevo, Inc.

Englewood, CO

We have audited the accompanying consolidated balance sheets of Gevo, Inc. and subsidiaries (a development stage company) (the Company) as of December 31, 2011 and 2010, and the related consolidated statements of operations, stockholders equity, and cash flows for each of the three years in the period ended December 31, 2011, and for the period from June 9, 2005 (date of incorporation) to December 31, 2011. These financial statements are the responsibility of the Company s management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, such consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2011 and 2010, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2011, and for the period from June 9, 2005 (date of incorporation) to December 31, 2011, in conformity with accounting principles generally accepted in the United States of America.

The Company is a development stage enterprise engaged in conducting research and development, business development, business and financial planning, establishing its facilities, recruiting personnel and raising capital. As discussed in Note 1 to the consolidated financial statements, successful completion of the Company s research and development program, and ultimately, the attainment of profitable operations are dependent upon future events, including completion of its development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, obtaining adequate financing to complete its development activities, obtaining adequate financing to acquire access to and complete the retrofit of ethanol plants to isobutanol production, market acceptance and demand for its products and services and attracting and retaining qualified personnel.

As discussed in Note 11 to the consolidated financial statements, the Company has changed its method of accounting for preferred stock warrants as of January 1, 2009.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company s internal control over financial reporting as of December 31, 2011, based on the criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 28, 2012 expressed an unqualified opinion on the Company s internal control over financial reporting.

/s/ DELOITTE & TOUCHE LLP

Denver, Colorado

February 28, 2012

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GEVO, INC.

CONSOLIDATED BALANCE SHEETS

	December 31, 2011	December 31, 2010
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	$ 94,225,000	$ 15,274,000
Accounts receivable	2,938,000	2,830,000
Inventories	3,814,000	3,765,000
Prepaid expenses and other current assets	1,283,000	1,040,000
Derivative asset		361,000
Margin deposit	474,000	624,000
Total current assets	102,734,000	23,894,000
PROPERTY, PLANT AND EQUIPMENT Net	28,777,000	23,465,000
DEFERRED OFFERING COSTS		3,152,000
DEBT ISSUE COSTS	1,017,000	929,000
DEPOSITS AND OTHER ASSETS	502,000	169,000
TOTAL	$ 133,030,000	$ 51,609,000
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable and accrued expenses	$ 12,440,000	$ 7,903,000
Current portion of secured long-term debt Net of $969,000 and $113,000 discount at December 31, 2011 and 2010, respectively	3,491,000	1,785,000
Derivative liability	186,000	405,000
Fair value of warrant liabilities		2,034,000
Total current liabilities(*)	16,117,000	12,127,000
SECURED LONG-TERM DEBT Net of $1,504,000 and $1,493,000 discount, less current portion, at December 31, 2011 and 2010, respectively	24,752,000	18,647,000
OTHER LIABILITIES	24,000	876,000
Total liabilities	40,893,000	31,650,000
COMMITMENTS AND CONTINGENCIES		
STOCKHOLDERS EQUITY:		
Convertible preferred stock, $0.01 par value per share; zero and 15,246,000 shares authorized at December 31, 2011 and 2010, respectively; zero and 14,613,602 shares issued and outstanding at December 31, 2011 and 2010, respectively; aggregate liquidation preference of $0 and $90,660,000 at December 31, 2011 and 2010, respectively		146,000
Preferred stock, $0.01 par value per share; 5,000,000 and no shares authorized at December 31, 2011 and 2010, respectively; none issued and outstanding at December 31, 2011 and 2010, respectively		
Common stock, $0.01 par value per share; 100,000,000 and 30,000,000 shares authorized at December 31, 2011 and 2010, respectively; 26,382,058 and 1,160,657 shares issued and outstanding at December 31, 2011 and 2010, respectively	264,000	12,000
Additional paid-in capital	226,508,000	105,128,000
Deficit accumulated during development stage	(134,635,000)	(85,327,000)
Total stockholders equity	92,137,000	19,959,000

TOTAL	$ 133,030,000	$ 51,609,000

* Liabilities of Gevo, Inc. s consolidated subsidiaries for which creditors do not have recourse to the general credit of Gevo, Inc. were $4,462,000 and $4,785,000 at December 31, 2011 and 2010, respectively, and are recorded within current liabilities.

See notes to consolidated financial statements.

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GEVO, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Year Ended December 31,			From June 9, 2005 (Date of Inception) To December 31,
	2011	2010	2009	2011
REVENUES:				
Ethanol sales and related products, net	$ 63,742,000	$ 14,765,000	$	$ 78,507,000
Licensing revenue		138,000		138,000
Grant and research and development program revenue	807,000	1,493,000	660,000	3,543,000
Total revenues	64,549,000	16,396,000	660,000	82,188,000
COST OF GOODS SOLD	(60,588,000)	(13,446,000)		(74,034,000)
GROSS MARGIN	3,961,000	2,950,000	660,000	8,154,000
OPERATING EXPENSES:				
Research and development	(19,753,000)	(14,820,000)	(10,508,000)	(57,219,000)
Selling, general and administrative	(28,890,000)	(23,643,000)	(8,699,000)	(70,325,000)
Lease termination costs				(894,000)
Loss on abandonment or disposal of assets	(11,000)		(22,000)	(354,000)
Total operating expenses	(48,654,000)	(38,463,000)	(19,229,000)	(128,792,000)
LOSS FROM OPERATIONS	(44,693,000)	(35,513,000)	(18,569,000)	(120,638,000)
OTHER (EXPENSE) INCOME:				
Interest and other expense	(3,577,000)	(2,374,000)	(1,103,000)	(8,579,000)
Interest and other income	85,000	108,000	277,000	721,000
Loss from change in fair value of warrant liabilities	(29,000)	(2,333,000)	(490,000)	(2,852,000)
Other expense net	(3,521,000)	(4,599,000)	(1,316,000)	(10,710,000)
NET LOSS	(48,214,000)	(40,112,000)	(19,885,000)	(131,348,000)
Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock	(1,094,000)	(2,778,000)		(3,872,000)
NET LOSS ATTRIBUTABLE TO GEVO, INC. COMMON STOCKHOLDERS	$ (49,308,000)	$ (42,890,000)	$ (19,885,000)	$ (135,220,000)
Net loss per share attributable to Gevo, Inc. common stockholders basic and diluted	$ (2.15)	$ (37.44)	$ (18.07)	
Weighted-average number of common shares outstanding basic and diluted	22,909,916	1,145,500	1,100,294	

See notes to consolidated financial statements.

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GEVO, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY

	Convertible Preferred Stock		Common Stock				
	Shares	Amount	Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders Equity
BALANCE June 9, 2005 (date of inception)		$		$	$	$	$
Issuance of common stock			950,000	10,000	(10,000)		
Issuance of Series A-1 preferred stock	1,000,000	10,000			490,000		500,000
Stock issuance costs					(56,000)		(56,000)
Net loss						(259,000)	(259,000)
BALANCE December 31, 2005	1,000,000	10,000	950,000	10,000	424,000	(259,000)	185,000
Issuance of Series A-2 preferred stock	1,084,000	11,000			892,000		903,000
Issuance of Series A-3 preferred stock	915,000	9,000			1,592,000		1,601,000
Issuance of warrants with secured long-term debt					10,000		10,000
Stock issuance costs					(20,000)		(20,000)
Non-cash stock-based compensation					2,000		2,000
Net loss						(1,110,000)	(1,110,000)
BALANCE December 31, 2006	2,999,000	30,000	950,000	10,000	2,900,000	(1,369,000)	1,571,000
Issuance of Series A-4 preferred stock	858,369	9,000			1,991,000		2,000,000
Issuance of Series B preferred stock	1,027,397	10,000			2,990,000		3,000,000
Issuance of common stock			22,000		10,000		10,000
Issuance of restricted common stock			187,500	2,000	(2,000)		
Issuance of warrants with secured long-term debt					33,000		33,000
Stock issuance costs					(82,000)		(82,000)
Non-cash stock-based compensation					55,000		55,000
Net loss						(7,226,000)	(7,226,000)
BALANCE December 31, 2007	4,884,766	49,000	1,159,500	12,000	7,895,000	(8,595,000)	(639,000)
Issuance of Series C preferred stock converted from promissory notes and accrued interest	555,346	6,000			3,037,000		3,043,000
Issuance of Series C preferred stock	2,546,844	25,000			13,932,000		13,957,000
Issuance of warrants with secured long-term debt					326,000		326,000
Issuance of warrants with convertible promissory notes					505,000		505,000

Beneficial conversion feature convertible promissory notes			505,000		505,000
Stock issuance costs			(210,000)		(210,000)
Non-cash stock-based compensation			207,000		207,000
Issuance of restricted common stock	50,000	1,000	(1,000)		
Forfeiture of restricted common stock	(64,583)	(1,000)	1,000		
Exercise of stock options to common stock	19,155		6,000		6,000
Net loss				(14,542,000)	(14,542,000)

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GEVO, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

	Convertible Preferred Stock		Common Stock		Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders Equity
	Shares	Amount	Shares	Amount			
BALANCE December 31, 2008	7,986,956	80,000	1,164,072	12,000	26,203,000	(23,137,000)	3,158,000
Cumulative effect of reclassification of preferred stock warrants from equity to liabilities					(874,000)	585,000	(289,000)
Issuance of Series D preferred stock	4,616,483	46,000			32,454,000		32,500,000
Stock issuance costs					(1,346,000)		(1,346,000)
Non-cash stock-based compensation					945,000		945,000
Forfeiture of restricted common stock			(13,530)				
Exercise of stock options to common stock			834				
Net loss						(19,885,000)	(19,885,000)
BALANCE December 31, 2009	12,603,439	126,000	1,151,376	12,000	57,382,000	(42,437,000)	15,083,000
Issuance of Series D-1 preferred stock	1,902,087	19,000			26,801,000		26,820,000
Beneficial conversion feature Series D-1					5,744,000		5,744,000
Deemed dividend amortization of beneficial conversion feature on Series D-1 convertible preferred stock					2,778,000	(2,778,000)	
Stock issuance costs					(153,000)		(153,000)
Non-cash stock-based compensation					10,511,000		10,511,000
Forfeiture of restricted common stock			(22,266)				
Exercise of stock options to common stock			31,547		16,000		16,000
Issuance of Series C preferred stock upon exercise of warrant	108,076	1,000			2,049,000		2,050,000
Net loss						(40,112,000)	(40,112,000)

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GEVO, INC.

CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY (Continued)

	Convertible Preferred Stock		Common Stock				
	Shares	Amount	Shares	Amount	Additional Paid-In Capital	Deficit Accumulated During the Development Stage	Total Stockholders Equity
BALANCE December 31, 2010	14,613,602	146,000	1,160,657	12,000	105,128,000	(85,327,000)	19,959,000
Issuance of common stock in initial public offering, net of underwriting discounts and commissions.			8,222,500	82,000	110,326,000		110,408,000
Conversion of preferred stock to common stock upon initial public offering	(14,613,602)	(146,000)	16,329,703	163,000	(17,000)		
Conversion of preferred stock warrants to common stock warrants upon initial public offering and reclassification of related liability to additional paid-in capital					2,063,000		2,063,000
Deemed dividend amortization of beneficial conversion feature on Series D-1 convertible preferred stock					1,094,000	(1,094,000)	
Non-cash stock-based compensation					6,826,000		6,826,000
Issuance of restricted common stock, net of forfeitures			311,859	3,000	(3,000)		
Issuance of warrants with secured long-term debt					877,000		877,000
Issuance of common stock pursuant to employee stock purchase plan			8,764		47,000		47,000
Exercise of stock options to common stock			266,151	2,000	169,000		171,000
Issuance of common stock upon cashless net exercise of warrant			122,424	2,000	(2,000)		
Net loss						(48,214,000)	(48,214,000)
BALANCE December 31, 2011		$	26,382,058	$ 264,000	$ 226,508,000	$ (134,635,000)	$ 92,137,000

See notes to consolidated financial statements.

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GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Year Ended December 31,			From June 9, 2005 (Date of Inception) To December 31,
	2011	2010	2009	2011
CASH FLOWS FROM OPERATING ACTIVITIES:				
Net loss	$ (48,214,000)	$ (40,112,000)	$ (19,885,000)	$ (131,348,000)
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation and amortization	4,600,000	3,188,000	1,511,000	10,292,000
Non-cash Stock-based compensation	6,826,000	10,511,000	945,000	18,546,000
Stock expense for shares issued pursuant to license agreements				10,000
Non-cash interest expense and amortization of debt discounts and debt issue costs to non-cash interest expense	928,000	762,000	235,000	3,081,000
Loss from change in fair value of warrant liabilities	29,000	2,333,000	490,000	2,852,000
Loss (gain) from change in derivative	142,000	(561,000)		(419,000)
Loss on abandonment or disposal of fixed assets	11,000		22,000	354,000
Changes in operating assets and liabilities (net of effects of acquisition):				
Accounts receivable	(108,000)	(732,000)	(99,000)	(939,000)
Prepaid expenses and other current assets	(531,000)	47,000	(128,000)	(648,000)
Inventories	(49,000)	(195,000)		(244,000)
Margin deposit	150,000	268,000		418,000
Deposits and other assets		1,000	4,000	(90,000)
Accounts payable, accrued expenses, and long-term liabilities	2,605,000	3,594,000	806,000	8,767,000
Net cash used in operating activities	(33,611,000)	(20,896,000)	(16,099,000)	(89,368,000)
CASH FLOWS FROM INVESTING ACTIVITIES:				
Acquisitions of property, plant and equipment	(8,015,000)	(806,000)	(2,982,000)	(16,255,000)
Acquisition of Agri-Energy, net of cash acquired		(24,936,000)		(24,936,000)
Other	(58,000)			(58,000)
Proceeds from the sale of property and equipment				5,000
Restricted certificate of deposit	40,000	40,000	40,000	(79,000)
Net cash used in investing activities	(8,033,000)	(25,702,000)	(2,942,000)	(41,323,000)

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GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Year Ended December 31,			From June 9, 2005 (Date of Inception) To December 31,
	2011	2010	2009	2011
CASH FLOWS FROM FINANCING ACTIVITIES:				
Proceeds from issuance of common stock (excluding initial public offering and employee stock purchase plan)	171,000	16,000		193,000
Proceeds from issuance of common stock pursuant to employee stock purchase plan	47,000			47,000
Proceeds from issuance of convertible preferred stock		31,564,000	32,500,000	86,025,000
Proceeds from issuance of convertible promissory notes with warrant				3,000,000
Proceeds from issuance of secured long-term debt	10,000,000	17,500,000	114,000	36,578,000
Proceeds from issuance of warrants				1,000
Proceeds from exercise of warrants		592,000		592,000
Payments on secured long-term debt	(1,897,000)	(5,250,000)	(622,000)	(8,290,000)
Deposit on secured long-term debt	(307,000)			(307,000)
Proceeds from issuance of common stock in initial public offering, net of underwriting discounts and commissions	114,704,000			114,704,000
Deferred offering costs	(1,692,000)	(2,604,000)		(4,296,000)
Debt issue costs	(431,000)	(1,033,000)		(1,464,000)
Payment of stock issuance costs		(153,000)	(1,346,000)	(1,867,000)
Net cash provided by financing activities	120,595,000	40,632,000	30,646,000	224,916,000
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	78,951,000	(5,966,000)	11,605,000	94,225,000
CASH AND CASH EQUIVALENTS:				
Beginning of period	15,274,000	21,240,000	9,635,000	
Ending of period	$ 94,225,000	$ 15,274,000	$ 21,240,000	$ 94,225,000
SUPPLEMENTAL DISCLOSURES OF NON-CASH TRANSACTIONS Investing and financing:				
Conversion of preferred stock warrants to common stock warrants upon initial public offering and reclassification of related liability to additional paid-in capital	$ 2,063,000	$	$	$ 2,063,000
Warrants issued with secured long-term debt	$ 877,000	$ 177,000	$ 203,000	$ 1,626,000
Warrants issued with convertible promissory notes	$	$	$	$ 505,000

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GEVO, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS (Continued)

	Year Ended December 31,			From June 9, 2005 (Date of Inception) To December 31,
	2011	2010	2009	2011
Promissory notes and accrued interest converted to Series C preferred stock	$	$	$	$ 3,043,000
Issuance of common stock pursuant to license agreements	$	$	$	$ 10,000
Issuance of Series C preferred stock upon exercise of warrant (amount reclassified from liability to equity)	$	$ 1,458,000	$	$ 1,458,000
Issuance of Series D-1 preferred stock to ICM, Inc. in exchange for a credit against future services	$	$ 1,000,000	$	$ 1,000,000
Deemed dividend amortization of beneficial conversion feature on Series D-1 preferred stock	$ 1,094,000	$ 2,778,000	$	$ 3,872,000
Reclassified deferred offering costs to additional paid-in capital upon initial public offering	$ 4,296,000	$	$	$ 4,296,000
Capital asset additions in accounts payable and accrued expenses	$ 1,846,000	$ 174,000	$ 52,000	$ 1,846,000
Capital asset additions acquired using prepaid credit with ICM, Inc.	$ 288,000	$ 438,000	$	$ 726,000
Accrued deferred offering costs	$	$ 548,000	$	$
SUPPLEMENTAL CASH FLOW DISCLOSURE Cash paid for interest, net of amounts capitalized	$ 2,461,000	$ 1,453,000	$ 868,000	$ 5,151,000

See notes to consolidated financial statements.

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GEVO, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(As of December 31, 2011 and 2010 and for the years ended December 31, 2011, 2010 and 2009.)

1. Nature of Business and Significant Accounting Policies

Nature of Business Gevo, Inc. (together with its subsidiaries, the Company) is a renewable chemicals and next generation biofuels company focused on the development and commercialization of alternatives to petroleum-based products based on isobutanol produced from renewable feedstocks. Gevo, Inc. was incorporated in Delaware on June 9, 2005 (Inception). Gevo, Inc. formed Gevo Development, LLC (Gevo Development) on September 18, 2009 to finance and develop biorefineries through joint venture or direct acquisition (Note 6). Gevo Development became a wholly owned subsidiary of the Company on September 22, 2010. Gevo Development purchased all of the membership interests of Agri-Energy, LLC and certain assets of Agri-Energy Limited Partnership (collectively referred to as Agri-Energy) on September 22, 2010 (Note 2). Agri-Energy, a wholly owned subsidiary of Gevo Development, is currently engaged in the business of producing and selling ethanol and related products produced at its ethanol plant located in Luverne, Minnesota (the Agri-Energy Facility). The retrofit of the Agri-Energy Facility to the production of isobutanol is currently underway and is expected to be completed in the first half of 2012.

On February 14, 2011, the Company completed its initial public offering issuing 8,222,500 shares of common stock at an offering price of $15.00 per share, resulting in net proceeds of $110,408,000, after deducting underwriting discounts and commissions of $8,634,000 and other offering costs of $4,296,000. Upon the closing of the initial public offering, the Company s outstanding shares of convertible preferred stock were automatically converted into 16,329,703 shares of common stock and the outstanding convertible preferred stock warrants were automatically converted into common stock warrants to purchase a total of 398,032 shares of common stock.

At December 31, 2011, the Company is considered to be in the development stage as its primary activities, since incorporation, have been conducting research and development, business development, business and financial planning, establishing its facilities, recruiting personnel and raising capital. Successful completion of the Company s research and development programs, and ultimately, the attainment of profitable operations are dependent upon future events, including completion of its development activities resulting in sales of isobutanol or isobutanol-derived products and/or technology, obtaining adequate financing to complete its development activities, obtaining adequate financing to acquire access to and complete the retrofit of ethanol plants to isobutanol production, market acceptance and demand for its products and services, and attracting and retaining qualified personnel.

Following the Company s acquisition of Agri-Energy on September 22, 2010, the Company began recording revenue from the sale of ethanol and related products. Because the production of ethanol is not the Company s intended business, the Company will continue to report as a development stage company until it begins to generate revenue from the sale of isobutanol or other products that are or will become the Company s intended business.

Financial Condition The Company s consolidated financial statements have been prepared on a going concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. For the year ended December 31, 2011, the Company incurred a consolidated net loss of $48,214,000 and had an accumulated deficit of $134,635,000. The Company expects to incur future net losses as it continues to fund the development and commercialization of its product candidates.

The Company has funded its activities since Inception primarily through equity offerings, including the Company s initial public offering in February 2011, and borrowings under the Company s secured debt financing arrangements. The Company expects to obtain funding through additional equity offerings and issuance of debt until it achieves positive cash flow from operations. The Company s cash and cash equivalents at December 31, 2011 totaled $94,225,000. Management expects that cash on hand will provide the Company with funding for at least the next 12 months. If the Company exceeds planned capital expenditure to complete the

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retrofit of the Agri-Energy Facility to isobutanol production or other estimates to prepare for commercial production of isobutanol at the Agri-Energy Facility, the Company may need to raise additional capital through future equity or debt issuances. There are no assurances that the Company will be able to raise additional funds, or achieve or sustain profitability or positive cash flow from operations. The accompanying consolidated financial statements do not include any adjustments that may result from the Company s inability to raise sufficient funds or achieve profitability.

A summary of the Company s significant accounting policies is as follows:

Principles of Consolidation The consolidated financial statements include the accounts of Gevo, Inc., Gevo Development and Agri-Energy. All intercompany balances and transactions have been eliminated in consolidation.

Use of Estimates The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ materially from those estimates.

Concentrations of Credit Risk The Company s financial instruments that are exposed to concentrations of credit risk consist of cash and cash equivalents in excess of the federally insured limits. The Company s cash and cash equivalents are deposited with high credit quality financial institutions and are primarily in demand deposit accounts. Substantially all ethanol sold through Agri-Energy from the date of acquisition through December 31, 2011 was sold to C&N Ethanol Marketing (C&N).

Cash and Cash Equivalents The Company considers all highly liquid investments purchased with a remaining maturity of three months or less at the date of acquisition to be cash equivalents. The Company maintains its cash in bank deposits that at times may exceed federally insured limits.

Accounts Receivable The Company records receivables for products shipped but for which payment has not yet been received. As of December 31, 2011 and 2010, no allowance for doubtful accounts has been recorded, based upon the expected full collection of the accounts receivable. Substantially all ethanol sold through Agri-Energy from the date of acquisition through December 31, 2011 was sold to C&N. Accounts receivable from C&N made up 58% and 56% of the Company s total accounts receivable balance at December 31, 2011 and 2010, respectively.

Inventories Corn, ethanol, distiller s grains, enzymes and other inventory items are stated at the lower of cost or market value. Cost is determined by the first-in, first-out method. Ethanol inventory cost consists of the applicable share of raw material, direct labor and manufacturing overhead costs.

Deferred Offering Costs Deferred offering costs include costs directly attributable to the Company s offering of its equity securities. These costs were deferred and capitalized and were charged against the proceeds of the offering.

Debt Issue Costs and Debt Discount Debt issue costs are costs incurred in connection with the Company obtaining financing that have been capitalized and are being amortized over the stated maturity period of the related debt, using the effective interest method. Debt discounts incurred with the issuance of long-term debt are amortized to interest expense over the terms of the debt using the effective interest method and are recorded on the consolidated balance sheets as a reduction to long-term debt.

Revenue Recognition The Company records revenue from the sale of ethanol and related products. The Company recognizes revenue when all of the following criteria are satisfied: persuasive evidence of an arrangement exists; risk of loss and title transfer to the customer; the price is fixed or determinable; and collectability is reasonably assured. Ethanol and related products are generally shipped free on board shipping point. Collectability of revenue is reasonably assured based on historical evidence of collectability between the Company and its customers.

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In accordance with the Company s agreements for the marketing and sale of ethanol and related products, commissions due to marketers are deducted from the gross sales price at the time payment is remitted to the Company. Ethanol and related products sales are recorded net of commissions.

Revenue related to government research grants and cooperative agreements is recognized in the period during which the related costs are incurred, provided that the conditions under the awards have been met and only perfunctory obligations are outstanding.

Other research and development program revenue consists of research services and the procurement of the Company s products for purposes of certification and testing. Revenue from research services is recognized over the relevant performance period of the contract. Revenue from the procurement of the Company s products for purposes of certification and testing is recognized upon the transfer of risk of loss and title to the customer.

Cost of Goods Sold Cost of goods sold includes costs for materials, direct labor and certain plant overhead costs. Direct materials consist of the costs of corn feedstock, denaturant and process chemicals. Direct labor includes compensation of personnel directly involved in the operation of the ethanol plant. Plant overhead costs primarily consist of plant utilities and plant depreciation. Cost of goods sold is mainly affected by the cost of corn and natural gas. Corn is the most significant raw material cost. The Company purchases natural gas to power steam generation in the ethanol production process and to dry the distiller s grains. Cost of goods sold also includes gains or losses from the Company s forward purchase contracts, other than those designated under the normal purchases and normal sales scope exception, and changes in fair value on the Company s exchange traded futures contracts.

Derivative Instruments The Company s derivative instruments include forward purchase contracts and exchange-traded futures contracts. The Company enters into forward purchase contracts for corn to be used in the production of ethanol. Prior to January 1, 2011, the Company recorded forward purchase contracts as derivative assets or liabilities on the consolidated balance sheets at fair value. The changes in the fair value of these derivatives were recognized as a component of cost of goods sold in the Company s consolidated statements of operations. Effective January 1, 2011, the Company elected the normal purchase and normal sales exception guidance of GAAP for its forward purchase contracts and, as a result, they were not marked to market during 2011. To qualify for the normal purchases and normal sales scope exception, a contract must provide for the purchase or sale of commodities in quantities that are expected to be used or sold over a reasonable period of time in the normal course of operations.

The Company also enters into exchange-traded futures contracts for corn as a means of managing exposure to changes in corn prices. These contracts are recorded as derivative assets or liabilities on the consolidated balance sheets at fair value. Changes in the fair value during a reporting period are recognized to cost of goods sold in the consolidated statements of operations.

Property, Plant and Equipment Property, plant and equipment are recorded at cost less accumulated depreciation. Provisions for depreciation and amortization are computed using the straight-line method over the assets estimated useful lives, except for the Company s demonstration plant which is fully depreciated at December 31, 2011. The demonstration plant was depreciated over the contractual term of a development agreement with ICM, Inc. (ICM), which prior to an amendment in December 2011, was set to expire on December 31, 2011 (Note 5). Leasehold improvements are amortized over the term of the lease agreement or the service lives of the improvements, whichever is shorter. Assets under construction are depreciated when they are placed into service. Maintenance and repairs are charged to expense as incurred and expenditures for major improvements are capitalized. When assets are retired or otherwise disposed of, the property accounts are relieved of costs and accumulated depreciation and any resulting gain or loss is credited or charged to operations. Capitalized interest on construction in progress is included in property, plant and equipment.

Impairment of Long-Lived Assets The Company s long-lived assets are evaluated for impairment in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 360, *Property, Plant, and Equipment*, whenever events or circumstances indicate the carrying amount of the assets may not be fully recoverable. Circumstances which could trigger a review include, but are not limited to, significant decreases in the market price of the asset; significant adverse changes in the business climate, legal or regulatory factors; accumulation of costs significantly in excess of the amount originally expected for the

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acquisition or construction of the asset; current period cash flow or operating losses combined with a history of losses or a forecast of continuing losses associated with the use of the asset; or expectations that the asset will more likely than not be sold or disposed of significantly before the end of its estimated useful life. The carrying amount of a long-lived asset may not be recoverable if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets. No impairment charges have been recorded from Inception to December 31, 2011. The Company has not yet generated positive cash flows from operations, and such cash flows may not materialize for a significant period in the future, if ever. Additionally, the Company may make changes to its business plan that will result in changes to the expected cash flows from long-lived assets. As a result, it is possible that future evaluations of long-lived assets may result in impairment.

Patents All costs related to filing and pursuing patent applications are expensed as incurred as recoverability of such expenditures is uncertain. Patent-related legal expenses incurred are recorded as selling, general and administrative expense during the years ended December 31, 2011, 2010 and 2009, and from Inception to December 31, 2011, were $1,342,000, $993,000, $743,000 and $4,306,000, respectively.

Beneficial Conversion Feature The Company recorded a beneficial conversion feature relating to the issuance of Series D-1 preferred stock between March and May 2010 (Note 10). The beneficial conversion feature was recorded as a discount to the Series D-1 preferred stock and was being amortized to retained earnings through September 30, 2011, unless converted earlier. On February 14, 2011, upon completion of the Company s initial public offering, the shares of Series D-1 preferred stock automatically converted to common stock at a rate of 1.9022 shares of common stock for each share of Series D-1 preferred stock.

Research and Development Research and development costs are expensed as incurred and are recorded as research and development expense in the consolidated statements of operations. The Company s research and development costs consist of expenses incurred to identify, develop, and test its technologies for the production of isobutanol and the development of downstream applications thereof. Research and development expense includes personnel costs, consultants and related contract research, facility costs, supplies, depreciation on property, plant and equipment used in development, license fees and milestone payments paid to third parties for use of their intellectual property and patent rights, and other direct and allocated expenses incurred to support the Company s overall research and development programs.

Income Taxes The Company accounts for income taxes under FASB ASC 740, *Income Taxes*. Deferred tax assets and liabilities are recorded for the estimated future tax effects of temporary differences between the tax basis of assets and liabilities and amounts reported in the consolidated balance sheets, as well as operating loss carryforwards. Deferred tax assets are reduced by a valuation allowance if, based upon the weight of available evidence, it is more-likely-than-not that these benefits will not be realized (Note 14). At December 31, 2011 and 2010, the Company had no material unrecognized tax benefits and had no accrued interest or penalties related to uncertain tax positions. The Company classifies interest and penalties arising from the underpayment of income taxes in the consolidated statements of operations as income tax expense.

Stock-Based Compensation The Company accounts for stock-based compensation for awards to employees in accordance with FASB ASC 718, *Compensation-Stock Compensation*. Under the provisions of FASB ASC 718, stock-based compensation for awards to employees is measured at the grant date based on the fair value of the awards and is recognized as expense over the required service period of the award. The Company estimates the fair value of stock options issued to employees using the Black Scholes option-pricing model.

The Company accounts for stock-based awards to non-employees using a fair value method in accordance with FASB ASC 718 and FASB ASC 505-50, *Equity-Equity-Based Payments to Non-Employees*. The Company determines the estimated fair value of stock options issued to non-employees using the Black Scholes option-pricing model. The fair values of the stock options and stock-based awards granted to non-employees are remeasured as the services are performed and the awards vest, and the resulting change in value, if any, is recognized as expense during the period the related services are rendered.

Fair Value Measurements and Fair Value of Financial Instruments Accounting standards define fair value, outline a framework for measuring fair value, and detail the required disclosures about fair value measurements.

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Under these standards, fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date in the principal or most advantageous market. Standards establish a hierarchy in determining the fair market value of an asset or liability. The fair value hierarchy has three levels of inputs, both observable and unobservable. Standards require the utilization of the highest possible level of input to determine fair value.

Level 1 inputs include quoted market prices in an active market for identical assets or liabilities.

Level 2 inputs are market data, other than Level 1, that are observable either directly or indirectly. Level 2 inputs include quoted market prices for similar assets or liabilities, quoted market prices in an inactive market, and other observable information that can be corroborated by market data.

Level 3 inputs are unobservable and corroborated by little or no market data.

As of December 31, 2011 and 2010, there were no transactions measured at fair value on a nonrecurring basis. The following table shows assets and liabilities measured at fair value on a recurring basis as of December 31, 2011 and 2010, and the input categories associated with those assets and liabilities.

	Fair Value as of December 31, 2011	Fair Value Measurement Using Level 1	Level 2	Level 3
Liabilities Exchange-traded derivatives	$ 186,000	$ 186,000	$	$

	Fair Value as of December 31, 2010	Fair Value Measurement Using Level 1	Level 2	Level 3
Liabilities Fair value of warrant liabilities	$ (2,034,000)	$	$	$ (2,034,000)
Liabilities Exchange-traded derivatives	$ (405,000)	$ (405,000)	$	$
Assets Forward purchase contracts for corn	$ 361,000	$	$ 361,000	$

The changes in Level 3 liabilities measured at fair value on a recurring basis for the years ended December 31, 2011 and 2010 are as follows:

	Fair Value of Warrant Liabilities
Liabilities:	
Balance December 31, 2009	$ 982,000
Initial measurement of warrants issued during the period	177,000
Change in fair value of warrants	2,333,000
Warrants exercised during the period and liability reclassified to additional paid-in-capital	(1,458,000)
Balance December 31, 2010	$ 2,034,000
Change in fair value of warrants	29,000
Conversion of preferred stock warrants to common stock warrants and reclassification of related liability to additional paid-in-capital (February 14, 2011)	(2,063,000)
Balance December 31, 2011	$

The carrying value of cash and cash equivalents, receivables, and accounts payable approximate their respective fair values due to the short-term nature of these instruments. Based on borrowing rates which management believes would currently be available to the Company for similar

issues of debt, taking into account the current credit risk of the Company and other market factors, the carrying value of the Company s debt obligations approximate their fair value.

The fair value of exchange-traded derivative instruments is based on quoted market prices. The fair value of forward purchase contracts for corn is based upon the price at the delivery location adjusted for basis

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differentials, counterparty credit quality, the effect of the Company s own credit worthiness, the time value of money and/or the liquidity of the market. Contracts which qualify for the normal purchases and normal sales scope exception to fair value accounting are not marked to market in the financial statements. Effective January 1, 2011, the Company designates all of its forward purchase contracts for corn under the normal purchases and normal sales scope exception and therefore were not marked to market during the year ended December 31, 2011.

Prior to its initial public offering, the Company had derivative liabilities relating to its preferred stock warrants. These derivative instruments were not entered into as hedging activities. The estimated fair value of the preferred stock warrant liabilities were revalued at each balance sheet date, with changes in value recorded as other income or expense in the consolidated statements of operations (Note 11).

While the Company believes that its valuation methods are appropriate and consistent with other market participants, it recognizes that the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date.

Environmental Liabilities The Company s operations are subject to environmental laws and regulations adopted by various governmental authorities in the jurisdictions in which it operates. These laws require the Company to investigate and remediate the effects of the release or disposal of materials at its locations. Accordingly, the Company has adopted policies, practices and procedures in the areas of pollution control, occupational health and the production, handling, storage and use of hazardous materials to prevent material environmental or other damage, and to limit the financial liability which could result from such events. Environmental liabilities are recorded when the Company s liability is probable and the costs can be reasonably estimated. No environmental liabilities have been recorded as of December 31, 2011.

Net Loss Per Share Basic net loss per share is computed by dividing the net loss attributable to Gevo, Inc. common stockholders for the period by the weighted-average number of common shares outstanding during the period. Diluted net loss per share is computed by dividing net loss attributable to Gevo, Inc. common stockholders for the period by the weighted-average number of dilutive common shares outstanding during the period. Dilutive shares outstanding are calculated by adding to the weighted shares outstanding any potential (unissued) shares of common stock and warrants based on the treasury stock method.

Diluted net loss per share is the same as basic net loss per share for all periods presented because any potentially dilutive common shares were anti-dilutive. Such potentially dilutive shares are excluded from the computation of diluted net loss per share when the effect would be to reduce net loss per share. Therefore, in periods when a loss is reported, the calculation of basic and dilutive net loss per share results in the same value.

The following potentially dilutive securities were excluded from the calculation of diluted net loss per share during each period as the effect was anti-dilutive:

	December 31, 2011	December 31, 2010
Convertible preferred stock upon conversion to common stock (on an as-converted basis)(1)		16,329,703
Warrants to purchase convertible preferred stock (on an as-converted basis)(1)		398,032
Warrants to purchase common stock (at period-end)	1,243,820	858,000
Outstanding stock options to purchase common stock (at period-end)	3,261,739	2,894,265
Unvested restricted common stock (at period-end)	284,825	5,729
Total	4,790,384	20,485,729

(1) The convertible preferred stock and convertible preferred stock warrants were computed on an as-converted basis using a one-to-one conversion rate for all series of preferred stock, except for the Series D-1 preferred stock where the Company used a conversion rate of 1.9022, which was the conversion rate applicable at the closing of the Company s initial public offering on February 14, 2011.

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Recent Accounting Pronouncements In May 2011, the FASB issued Accounting Standards Update (ASU) No. 2011-04, *Fair Value Measurement (Topic 820): Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and IFRSs.* This update amends ASC Topic 820, *Fair Value Measurement and Disclosure.* ASU 2011-04 clarifies the application of certain existing fair value measurement guidance and expands the disclosures for fair value measurements that are estimated using significant unobservable (Level 3) inputs. ASU 2011-04 is effective for annual and interim reporting periods beginning on or after December 15, 2011. The new guidance is to be adopted prospectively and early adoption is not permitted. The Company does not expect the adoption of ASU 2011-04 will have a significant impact on its financial position, results of operations or cash flows.

2. Acquisition of Agri-Energy

In September 2010, Gevo Development acquired Agri-Energy and its ethanol production facility located in Luverne, Minnesota. The Company is currently retrofitting the ethanol production facility to isobutanol production. During the ongoing retrofit, the facility continues to operate as an ethanol production facility. The Company paid a purchase price of approximately $20,602,000. In addition, the Company acquired and paid $4,919,000 for working capital, resulting in a total amount paid of $25,521,000.

The acquisition of Agri-Energy was completed as part of the Company s strategy of acquiring access to ethanol production facilities for future retrofit to produce isobutanol. Upon completion of the acquisition, Gevo Development acquired effective control of Agri-Energy on September 22, 2010. The acquisition was accounted for under the acquisition method of accounting which requires, among other things, that all assets acquired and liabilities assumed be recognized at their fair values as of the acquisition date.

The following table summarizes the fair value of the assets acquired and liabilities assumed as of the acquisition date (September 22, 2010):

Assets acquired:	
Cash	$ 585,000
Receivables	1,999,000
Inventory	3,570,000
Other current assets	1,256,000
Property, plant and equipment	20,602,000
Total assets acquired	$ 28,012,000
Liabilities assumed:	
Accounts payable and accrued expenses	$ 1,843,000
Other current liabilities	648,000
Total liabilities assumed	$ 2,491,000
Net assets acquired	$ 25,521,000

The results of Agri-Energy s operations for the year ended December 31, 2011, and for the period from September 23, 2010 through December 31, 2010, are reflected in the Company s consolidated statements of operations for the year ended December 31, 2011 and 2010, respectively.

The revenue and income from operations relating to Agri-Energy for the period from September 23, 2010 through December 31, 2010 was $14,765,000 and $1,025,000, respectively.

Pro forma results of operations for the Company as if the acquisition of Agri-Energy had occurred on January 1, 2009 are as follows (unaudited):

	Year Ended December 31, 2010	Year Ended December 31, 2009
Revenues	$ 46,890,000	$ 40,768,000

Loss from operations	$ (34,234,000)	$ (17,990,000)
Net loss	$ (40,187,000)	$ (21,256,000)

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The pro forma results above include the combined results of operations of the Company and Agri-Energy, after making certain adjustments, for the years ended December 31, 2010 and 2009, as if the Agri-Energy acquisition had occurred on January 1, 2009. There were no transactions between the Company and Agri-Energy prior to the acquisition on September 22, 2010. There were no significant differences between the accounting policies of the Company and Agri-Energy. The unaudited pro forma results above are prepared for illustrative purposes only and are not necessarily indicative of the results of operations that would have actually been reported had the acquisition occurred on January 1, 2009 nor are they necessarily indicative of the future results of operations of the combined Company.

3. Property, Plant and Equipment

A summary of property, plant and equipment by classification is as follows:

	Estimated Useful Lives	December 31, 2011	December 31, 2010
Computer, office equipment, and software	3 years	$ 614,000	$ 581,000
Lab equipment, furniture & fixtures and vehicles	5 years	4,035,000	3,432,000
Leasehold improvements	5 years(1)	523,000	380,000
Pilot plant	3 years	721,000	721,000
Demonstration plant	2 years(2)	3,597,000	2,948,000
Construction in progress		8,403,000	442,000
Land		410,000	410,000
Buildings, site improvements, plant machinery and equipment	10 years	20,359,000	20,093,000
Tools and support equipment	5 years	105,000	87,000
Total property, plant and equipment		38,767,000	29,094,000
Less accumulated depreciation and amortization		(9,990,000)	(5,629,000)
Property, plant and equipment net		$ 28,777,000	$ 23,465,000

(1) Leasehold improvements are amortized over the term of the lease agreement or the service lives of the improvements, whichever is shorter.
(2) Depreciation related to the demonstration plant began in the period the assets were placed in service which was September 2009. The demonstration plant was being depreciated through December 31, 2011, the contractual end date of the development agreement prior to an amendment signed in December 2011 (Note 5).

Depreciation and amortization expense for the years ended December 31, 2011, 2010 and 2009, and from Inception to December 31, 2011, were $4,600,000, $3,188,000, $1,511,000, and $10,292,000, respectively.

The Company capitalized $297,000 of incurred interest to construction in progress during the year ended December 31, 2011. No interest incurred prior to 2011 was required to be capitalized.

4. Inventories

Inventory balances consist of the following:

	December 31, 2011	December 31, 2010
Raw materials:		
Corn	$ 2,408,000	$ 2,516,000
Enzymes and other inputs	151,000	167,000
Finished goods:		
Ethanol	349,000	385,000

Distiller s grains	17,000	48,000
Work in process	456,000	301,000
Spare parts	433,000	348,000
Total inventory	$ 3,814,000	$ 3,765,000

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Included in cost of goods sold is depreciation of $2,061,000 and $549,000 for the years ended December 30, 2011 and 2010, respectively.

5. Significant Agreements

Off-Take, Distribution and Marketing Agreements

International Off-Take and Distribution Agreement with Sasol On July 29, 2011, the Company and Sasol Chemical Industries Limited (Sasol) entered into an international off-take agreement to market and distribute renewable isobutanol globally. The agreement has an initial term of three years and appoints Sasol as a non-exclusive distributor of high-purity isobutanol in North and South America and as the exclusive distributor for high-purity isobutanol for solvent and chemical intermediate applications in the rest of the world. Beginning upon the Company s first commercial sale of high-purity isobutanol, if Sasol desires to maintain its exclusive distribution rights, Sasol is obligated to either purchase certain minimum quantities of high-purity isobutanol or pay the Company applicable shortfall fees and the Company is obligated to either supply Sasol with certain minimum quantities of high-purity isobutanol or pay Sasol applicable shortfall fees. No amounts have been recorded under this agreement as of December 31, 2011.

Exclusive Supply Agreement with LANXESS On January 14, 2011, the Company entered into an exclusive supply agreement, as amended, with LANXESS Inc. (LANXESS) pursuant to which LANXESS has granted the Company an exclusive first right to supply LANXESS and its affiliates with certain of their requirements for biobased isobutanol during the term of the agreement. The Company s exclusive first right to supply biobased isobutanol to LANXESS and its affiliates will be subject to the terms of a supply agreement to be mutually agreed upon by the parties at a later date. Additionally, pursuant to the terms of the exclusive supply agreement the Company has granted LANXESS, subject to certain exceptions and conditions, (i) an exclusive first right to acquire its biobased isobutanol to produce isobutylene and butenes for use and sale in the field of chemicals, and (ii) an exclusive right to use the Company s isobutanol to produce butadiene and isobutylene for use in the production of polybutadiene and butyl rubber. The initial term of the mutual exclusivity is ten years, subject to mutual extension. No costs have been incurred under this agreement as of December 31, 2011.

Off-Take and Marketing Alliance Agreement and Renewable Fuels Supply Chain Agreement with Mansfield Oil Company On August 12, 2011, the Company entered into a commercial off-take agreement with Mansfield Oil Company (Mansfield), to distribute isobutanol-based fuel into the petroleum market. The agreement allows Mansfield to blend the Company s isobutanol for its own use, and to be a distributor of the Company s isobutanol for a term of five years. The Company also entered into a three-year supply services agreement with C&N, a Mansfield subsidiary, which will provide supply chain services including logistics management, customer service support, invoicing and billing services. No amounts have been recorded under these agreements as of December 31, 2011.

Ethanol Marketing Agreement with C&N, a subsidiary of Mansfield Oil Company Substantially all ethanol sold through Agri-Energy from the date of acquisition through December 31, 2011 was sold to C&N pursuant to an ethanol purchase and marketing agreement. The ethanol purchase and marketing agreement with C&N was entered into on April 1, 2009 and automatically renews for subsequent one-year terms unless either party terminates the agreement 60 days before the end of a term. Under the terms of the agreement, C&N will market substantially all of Agri-Energy s ethanol production from the Agri-Energy Facility and will pay to Agri-Energy the gross sales price paid by the end customer less expenses and a marketing fee.

Jet Fuel Supply Agreement with the Defense Logistics Agency (U.S. Air Force) During September 2011, the Company was awarded a contract for the procurement of up to 11,000 gallons of biojet fuel for the purposes of certification and testing by the U.S. Air Force. The total contract value may be up to $649,000. The term of the agreement is through December 30, 2012. Revenue is recognized upon the transfer of risk of loss and title to the U.S. Air Force. No revenue under this award has been recognized as of December 31, 2011.

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Commercialization and Development Agreements

Development and Commercialization Agreements with ICM In October 2008, the Company signed development and commercialization agreements with ICM.

Under the terms of the development agreement, the Company performs commercial-scale isobutanol production trials in ICM s research plant and facility in St. Joseph, Missouri, the demonstration plant. The Company is required to pay for or reimburse ICM for engineering fees, equipment, plant modification costs, project fees and various operating expenses. The development agreement, as amended, was effective through December 31, 2011. In December 2011, the development agreement was amended to extend the term indefinitely. The development agreement, as amended, may be cancelled by either party with 30 days written notice. During the years ended December 31, 2011, 2010 and 2009, the Company incurred $649,000, $362,000 and $2,587,000, respectively, in capital expenditures with ICM relating to the demonstration plant that are recorded as property, plant and equipment in the Company s consolidated balance sheets. The Company also incurred operating expenses paid to ICM for production trials at the demonstration plant and depreciation expense relating to the demonstration plant, which are recorded as research and development expenses.

The commercialization agreement, as amended, is effective through October 15, 2018, and outlines the terms and fees under which ICM acts as the Company s exclusive provider of certain engineering and construction services. Also, under the commercialization agreement, the Company is ICM s exclusive technology partner for the production of butanols, pentanols and propanols from the fermentation of sugars.

In addition to amounts recorded under the development and commercialization agreements noted above, the Company has also engaged ICM to perform engineering studies, plant evaluations and other services. In August 2011, the Company entered into a work agreement with ICM whereby ICM will provide engineering, procurement and construction services for the retrofit of ethanol plants.

During the years ended December 31, 2011 and 2010, the Company incurred $6,783,000 and $383,000, respectively, in capital expenditures with ICM relating to the retrofit of the Agri-Energy Facility to future isobutanol production, which amounts are recorded within construction in progress on the Company s consolidated balance sheets.

Expenses incurred by the Company under its development, commercialization and other agreements with ICM during the years ended December 31, 2011, 2010 and 2009, and from Inception to December 31, 2011, were $2,388,000, $2,349,000, $1,365,000, and $6,132,000, respectively.

Joint Research, Development, License and Commercialization Agreement with The Coca-Cola Company During November 2011, the Company entered into a joint research, development, license and commercialization agreement with The Coca-Cola Company (Coca-Cola). During the first two years of the agreement, Coca-Cola will pay the Company a fixed price fee for a research program as defined in the agreement. The Company recognizes these fees as revenue over the performance period. The payments received are not refundable. The Company recognized $98,000 of revenue under this agreement during the year ended December 31, 2011.

License Agreements

License Agreement with Cargill, Incorporated During February 2009, the Company entered into a license agreement with Cargill, Incorporated (Cargill) to obtain certain biological materials and license patent rights to use a biocatalyst owned by Cargill. Under the license agreement, Cargill has granted the Company an exclusive, royalty-bearing license, with limited rights to sublicense, to use the patent rights in a certain field, as defined in the license agreement.

The license agreement contains five milestone payments totaling approximately $4,300,000 that are payable after each milestone is completed. During 2009, two milestones were completed and the Company recorded the related milestone amounts, along with an up-front signing fee, totaling $875,000, to research and development expense. During March 2010, the Company completed milestone number three and recorded the related milestone amount of $2,000,000 to research and development expense at its present value amount of $1,578,000 because the milestone payment will be paid over a period greater than 12 months from the date it was incurred.

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Milestones number four and five included in the license agreement representing potential payments of up to $1,500,000 have not been met as of December 31, 2011 and no amounts have been recorded as a liability for these milestones. At December 31, 2011, the present value of the liability, $924,000, was recorded in accounts payable and accrued expenses. The accretion of the liability was recorded to interest expense.

Upon commercialization of a product which uses the Cargill biological material or is otherwise covered by the patent rights under the license agreement, a royalty based on net sales is payable by the Company, subject to a minimum royalty amount per year, as defined in the license agreement, and up to a maximum amount per year.

The license agreement provides an option for Cargill to purchase a nonexclusive, royalty-bearing license for the use of a Company biocatalyst that utilizes the Cargill biological material or licensed patents for a royalty rate equal to the lowest rate offered to any third party.

The Company may terminate the license agreement at any time upon 90 days written notice. Unless terminated earlier, the license agreement remains in effect until the later of December 31, 2025 and the date that no licensed patent rights remain.

Other

Within its research and development activities, the Company routinely enters into research and license agreements with various entities. Future royalty payments may apply under these license agreements if the technologies are used in future commercial products. In addition, the Company may from time to time make gifts to universities and other organizations to expand research activities in its fields of interest. Any amounts paid under these agreements are generally recorded as research and development expenses as incurred.

The Company has been awarded grants or cooperative agreements from a number of government agencies, including the U.S. Department of Energy, U.S. National Science Foundation, U.S. Environmental Protection Agency, Army Research Labs and the U.S. Department of Agriculture. Revenues recorded related to these grants and cooperative agreements are recorded within grant and research and development program revenue on the Company s statements of operations.

6. Gevo Development

Gevo, Inc. formed Gevo Development on September 18, 2009 to finance and develop biorefineries through joint venture or direct acquisition. Biorefinery plants accessed through Gevo Development are intended to be retrofitted using Gevo, Inc. s integrated fermentation technology to produce isobutanol.

Gevo, Inc. currently owns 100% of the outstanding equity interests of Gevo Development as a wholly owned subsidiary. Gevo Development has two classes of membership interests outstanding. Gevo, Inc. is the sole owner of the class A interests. Prior to September 22, 2010, CDP Gevo, LLC (CDP), which is beneficially owned by the two co-managing directors of Gevo Development, was the sole owner of the class B interests, which comprise 10% of the outstanding equity interests of Gevo Development. In September 2010, Gevo, Inc. became the sole owner of Gevo Development by acquiring 100% of the class B interests in Gevo Development from CDP pursuant to an equity purchase agreement. In exchange for the class B interests, CDP received aggregate consideration of $1,143,000.

The original issuance of the class B interests was considered to be a grant of non-employee stock-based compensation. As vesting of the awards was dependent on counterparty performance conditions (the acquisition and retrofit of a biorefinery plant), no compensation expense had been recorded prior to September 22, 2010 because the lowest aggregate fair value of the awards was zero. Upon the purchase of the class B interests on September 22, 2010, the Company recorded stock-based compensation of $774,000, which reflected the amount paid during the year ended December 31, 2010 for the class B interests that were not dependent on counterparty performance. During the year ended December 31, 2011, the Company recorded stock-based compensation of $296,000 for the amount paid during the period. The Company recorded the final payment amount, which was dependent on the continued employment of the two co-managing directors of Gevo Development, in January 2012.

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For the years ended December 31, 2011 and 2010, and for the period from September 18, 2009 (formation date of Gevo Development) to December 31, 2011, Gevo, Inc. made capital contributions of $4,946,000, $18,607,000 and $24,303,000, respectively, to Gevo Development. No capital contributions had been made by CDP through September 21, 2010. For the years ended December 31, 2011, 2010 and 2009, and for the period from September 18, 2009 (formation date of Gevo Development) to December 31, 2011, Gevo Development (including Agri-Energy after September 22, 2010, the closing date of the acquisition) incurred a net loss of $691,000, $2,327,000, $731,000 and $3,749,000, respectively, which has been fully allocated to Gevo, Inc. s capital contribution account based upon its capital contributions (for the period prior to September 22, 2010) and 100% ownership (for the period after September 22, 2010). For financial reporting purposes prior to September 22, 2010, the income or loss allocated to the members of Gevo Development was determined using the hypothetical liquidation at book value method. Under this method, net income or loss is allocated between members by determining the difference between the amount of equity at the beginning of the reporting period and equity at the end of the reporting period, which would be distributed to each member if Gevo Development were to be liquidated as of those dates. Distributions, when and if declared by the board of managers, were allocated, first, to each member for their estimated tax amount, then, for their unreturned capital contributions, and lastly, according to their distribution percentages. Allocation, distribution and voting percentages are determined in accordance with the First Amended and Restated Limited Liability Company Agreement of Gevo Development.

Amended and Restated Warrant Agreement The warrant agreement, as amended, details the terms upon which the Company has granted a warrant to CDP to purchase 858,000 shares of Gevo, In. common stock. The warrant agreement has an exercise price of $2.70 per share which was the estimated fair value of a share of Gevo, Inc. s common stock on the grant date. The warrant expires in September 2016, unless terminated earlier as provided in the agreement. The warrant shares were initially unvested and vested in increments upon the achievement of specific performance milestones. No amounts had been recorded for these warrants in the Company s consolidated statements of operations through September 21, 2010, as none of the counterparty performance milestones had been met; therefore, the lowest aggregate fair value of the award was zero.

On September 22, 2010, the beneficial owners of the equity interests of CDP became employees of Gevo, Inc. and the warrant agreement was amended and restated to provide that 50% of the warrant shares granted under such warrant agreement would vest on September 22, 2010. The remaining warrant shares vest over a two-year period beginning on September 22, 2010, subject to acceleration and termination in certain circumstances, such as the occurrence of a change of control event. The Company valued the warrant at $13,956,000 on September 22, 2010, and recognized 50% of this amount as stock-based compensation on September 22, 2010. The Company is recognizing the remaining 50% over the 24-month vesting period that began on September 22, 2010.

When Gevo Development was formed in September 2009, Gevo, Inc., Gevo Development and CDP also entered into the following related agreements: a commercialization agreement, a guaranty agreement and an exchange agreement. In August and September 2010, the commercialization agreement, the guaranty agreement and the exchange agreement were all terminated.

Since its formation, Gevo Development has been and continues to be considered a variable interest entity. Gevo, Inc., the primary beneficiary of Gevo Development, has both (i) the power to direct the activities of Gevo Development that most significantly impact Gevo Development s economic performance and (ii) the obligation to absorb losses of Gevo Development that could potentially be significant to Gevo Development or the right to receive benefits from Gevo Development that could potentially be significant to Gevo Development. As such, Gevo Development is consolidated. The accounts of Agri-Energy are consolidated within Gevo Development as a wholly owned subsidiary. As of December 31, 2011 and 2010, Gevo Development does not have any assets that can be used only to settle obligations of Gevo Development. However, under the terms of Agri-Energy s loan and security agreement with TriplePoint Capital LLC (TriplePoint), as amended, subject to certain limited exceptions, Agri-Energy is only permitted to pay dividends if certain conditions are satisfied. As of December 31, 2011 and 2010, the creditors of Gevo Development have recourse to the general credit of Gevo, Inc. with the exception of $4,462,000 and $4,785,000, respectively, which are recorded within current liabilities, which includes the liabilities of Agri-Energy. No gain or loss was recognized by the Company upon the initial consolidation of Gevo Development.

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7. Redfield Energy, LLC

On June 15, 2011, Gevo Development entered into an isobutanol joint venture agreement (the Joint Venture Agreement) with Redfield Energy, LLC, a South Dakota limited liability company (Redfield), and executed the second amended and restated operating agreement of Redfield (together, the Joint Venture Documents). Under the terms of the Joint Venture Documents, Gevo Development and Redfield have agreed to work together to retrofit Redfield s approximately 50 million gallon per year ethanol production facility located near Redfield, South Dakota (the Redfield Facility) for the commercial production of isobutanol. Under the terms of the Joint Venture Agreement, Redfield has issued 100 Class G membership units in Redfield (the Class G Units) to Gevo Development in exchange for a payment of $1,000, which has been recorded on the Company s consolidated balance sheet in deposits and other assets. Gevo Development is the sole holder of Class G units, which entitle Gevo Development to certain information and governance rights with respect to Redfield, including the right to appoint two members of Redfield s 11-member board of managers. The Class G units currently carry no interest in the allocation of profits, losses or other distributions of Redfield and no voting rights. Such rights will vest upon the commencement of commercial isobutanol production at the Redfield Facility, at which time Gevo Development anticipates consolidating Redfield s operations because Gevo anticipates it will control the activities that are most significant to the entity.

Gevo Development will be responsible for all costs associated with the retrofit of the Redfield Facility. Redfield will remain responsible for certain expenses incurred by the facility including certain repair and maintenance expenses and any costs necessary to ensure that the facility is in compliance with applicable environmental laws. The Company anticipates that the Redfield Facility will continue its current ethanol production activities during much of the retrofit. Once the retrofit assets have been installed, the ethanol production operations will be suspended to enable testing of the isobutanol production capabilities of the facility (the Performance Testing Phase). During the Performance Testing Phase, Gevo Development will be entitled to receive all revenue generated by the Redfield Facility and will make payments to Redfield to cover the costs incurred by Redfield to operate the facility plus the profits, if any, that Redfield would have received if the facility had been producing ethanol during that period (the Facility Payments). Gevo Development has also agreed to maintain an escrow fund during the Performance Testing Phase as security for its obligation to make the Facility Payments.

If certain conditions are met, commercial production of isobutanol at the Redfield Facility will begin upon the earlier of the date upon which certain production targets have been met or the date upon which the parties mutually agree that commercial isobutanol production at the Redfield Facility will be commercially viable at the then-current production rate. At that time, (i) Gevo Development will have the right to appoint a total of four members of Redfield s 11-member board of managers, and (ii) the voting and economic interests of the Class G units will vest and Gevo Development, as the sole holder of the Class G Units, will be entitled to a percentage of Redfield s profits, losses and distributions, to be calculated based upon the demonstrated isobutanol production capabilities of the Redfield Facility.

Gevo Development, or one of its affiliates, will be the exclusive marketer of all products produced by the facility once commercial production of isobutanol has begun. Additionally, Gevo, Inc. will license the technology necessary to produce isobutanol at the facility to Redfield, subject to the continuation of the marketing arrangement described above. In the event that the isobutanol production technology fails or Redfield is permanently prohibited from using such technology, Gevo Development will forfeit the Class G Units and lose the value of its investment in Redfield.

Gevo, Inc. entered into a guaranty effective as of June 15, 2011, pursuant to which it has unconditionally and irrevocably guaranteed the payment by Gevo Development of any and all amounts owed by Gevo Development pursuant to the terms and conditions of the Joint Venture Agreement and certain other agreements that Gevo Development and Redfield expect to enter into in connection with the retrofit of the Redfield Facility.

The Company has begun the project engineering and permitting process of the Redfield retrofit. As of December 31, 2011, the Company has incurred $66,000 in costs for the retrofit of the Redfield Facility which have been recorded on the Company s consolidated balance sheet in deposits and other assets.

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8. Secured Long-Term Debt

The carrying value of the secured long-term debt included in the Company s consolidated balance sheets at December 31, 2011 and 2010 consists of the following:

	December 31, 2011	December 31, 2010
Long-term debt, unpaid principal plus final/end-of-term payments	$ 30,716,000	$ 22,038,000
Less unamortized debt discounts for final/end-of-term payments and original fair value of warrants issued with debt	(2,473,000)	(1,606,000)
	28,243,000	20,432,000
Less current portion	(3,491,000)	(1,785,000)
Long-term portion of the long-term debt	$ 24,752,000	$ 18,647,000

Lighthouse Loan and Security Agreement. On December 18, 2006, Gevo, Inc. entered into a loan and security agreement, as amended, with Lighthouse Capital Partners V, L.P. (Lighthouse). On August 6, 2010, the Company repaid $5,000,000 in outstanding principal, as well as $250,000 of the final payment, under the promissory note issued in connection with the loan and security agreement. As of December 31, 2011, the Company s outstanding principal balance on its loan with Lighthouse was $1,037,000. The promissory note bears interest at a rate of 12% per annum, required interest only payments during the year ended December 31, 2010, and requires principal plus interest repayments of equal amounts over the 18 months commencing January 1, 2011 and a final payment of $204,000 due on July 1, 2012.

Under the terms of the loan and security agreement, the Company is prohibited from granting a security interest in its intellectual property assets to any other entity until Lighthouse is paid in full, and Lighthouse maintains a security interest in the assets, including equipment and fixtures, financed by the proceeds of each original loan advance made under the loan agreement until such time as the loan is paid in full. The Lighthouse agreement does not contain financial ratio covenants, but does impose certain affirmative and negative covenants, which include prohibiting the Company from paying any dividends or distributions or creating any liens against the collateral as defined in the agreement, as amended. The Company cannot borrow any further amounts under its agreement with Lighthouse. At December 31, 2011, the Company was in compliance with the Lighthouse financial covenants.

Gevo Loan Agreement. In August 2010, concurrently with the execution of the agreement to acquire Agri-Energy in Luverne, Minnesota, Gevo, Inc. entered into a loan and security agreement with TriplePoint, pursuant to which it borrowed $5,000,000 (the Gevo Loan Agreement). The Gevo Loan Agreement includes customary affirmative and negative covenants for agreements of this type and events of default, including disposing of certain assets, granting or otherwise allowing the imposition of a lien against certain assets, incurring certain amounts of additional indebtedness, or acquiring or merging with another entity, excluding Agri-Energy, unless the Company receives the prior approval of TriplePoint. The aggregate amount outstanding under the Gevo Loan Agreement bears interest at a rate equal to 13%, is subject to an end-of-term payment equal to 8% of the amount borrowed and is secured by substantially all of the assets of Gevo, Inc., other than its intellectual property. The loan is also secured by substantially all of the assets of Agri-Energy, LLC. Additionally, under the terms of each of (i) the Gevo Loan Agreement and (ii) Gevo, Inc. s guarantee of Agri-Energy s obligations under the Original Agri-Energy Loan Agreement described below, Gevo, Inc. is prohibited from granting a security interest in its intellectual property assets to any other entity until both TriplePoint loans are paid in full. The loan matures on August 31, 2014, and provides for interest-only payments during the first 24 months. An additional interest-only period of 6 months may be elected in the event that Gevo, Inc. begins producing isobutanol at its Agri-Energy Facility by June 30, 2012. Gevo, Inc. used the funds from this loan to repay a portion of its existing indebtedness with Lighthouse. At December 31, 2011, the Company was in compliance with the financial covenants under the Gevo Loan Agreement.

Original Agri-Energy Loan Agreement. In August 2010, Gevo Development borrowed $12,500,000 from TriplePoint to finance its acquisition of Agri-Energy. In September 2010, upon completion of the acquisition, the loan and security agreement was amended to make Agri-Energy, LLC the borrower under the facility. This loan