

Gevo, Inc.
Form 10-K
April 15, 2014

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, DC 20549

Form 10-K

(Mark One)

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
For the fiscal year ended December 31, 2013

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
(State or Other Jurisdiction of
Incorporation or Organization)

345 Inverness Drive South, Building C, Suite 310,

Englewood, CO
(Address of Principal Executive Offices)

87-0747704
(I.R.S. Employer

Identification No.)

80112
(Zip Code)

(303) 858-8358

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(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

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

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (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 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.

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 (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

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 28, 2013 was approximately \$69.3 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 March 31, 2014 was 68,543,089.

DOCUMENTS INCORPORATED BY REFERENCE

None

GEVO, INC.

FORM 10-K—ANNUAL REPORT

For the Fiscal Year Ended December 31, 2013

Table of Contents

	Page
<u>PART I</u>	
Item 1. <u>Business</u>	2
Item 1A. <u>Risk Factors</u>	25
Item 1B. <u>Unresolved Staff Comments</u>	56
Item 2. <u>Properties</u>	57
Item 3. <u>Legal Proceedings</u>	57
Item 4. <u>Mine Safety Disclosures</u>	60
<u>PART II</u>	
Item 5. <u>Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	61
Item 6. <u>Selected Financial Data</u>	62
Item 7. <u>Management’s Discussion and Analysis of Financial Condition and Results of Operations</u>	65
Item 7A. <u>Quantitative and Qualitative Disclosures about Market Risk</u>	82
Item 8. <u>Financial Statements and Supplementary Data</u>	84
Item 9. <u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	124
Item 9A. <u>Controls and Procedures</u>	124
Item 9B. <u>Other Information</u>	124
<u>PART III</u>	
Item 10. <u>Directors, Executive Officers and Corporate Governance</u>	125
Item 11. <u>Executive Compensation</u>	127
Item 12. <u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	148
Item 13. <u>Certain Relationships and Related Transactions, and Director Independence</u>	151
Item 14. <u>Principal Accountant Fees and Services</u>	152
<u>PART IV</u>	
Item 15. <u>Exhibits and Financial Statement Schedules</u>	153
<u>SIGNATURES</u>	160

Forward-Looking Statements

When used anywhere in this Annual Report on Form 10-K (this “Report”), the words “expect,” “believe,” “anticipate,” “estimate,” “intend,” “plan” and similar 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,” “our” and “Company” refer to Gevo, Inc. and its wholly owned and indirect subsidiaries.

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 U.S. 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 and you are cautioned not to give undue weight to this 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 2011 (the most current data available from the IEA);

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

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

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

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

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

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

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

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

PART I

Item 1. Business.

Company Overview

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

We believe that products derived from our isobutanol will be drop-in products, which means that our customers will be able to replace petroleum-based intermediate products with renewable isobutanol-based intermediate products without modification to their equipment or production processes. The final products produced from our renewable isobutanol-based intermediate products should be chemically and physically identical to those produced from petroleum-based intermediate products, except that they will contain carbon from renewable sources. Customer interest in our renewable isobutanol is primarily driven by our production route, which we believe will be cost-efficient, and our renewable isobutanol'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 in contrast with other bioindustrial products because the infrastructure and applications for such products already exist. In addition, we believe that products made from biobased isobutanol will be subject to less raw material cost volatility than the petroleum-based products in use today because of the lower historical cost volatility of agricultural feedstocks compared to oil.

In order to produce and sell isobutanol made from renewable sources, we have developed the Gevo Integrated Fermentation Technology[®] ("GIFT[®]"), an integrated technology platform for the efficient production and separation of renewable isobutanol. GIFT[®] consists of two components, proprietary biocatalysts that convert sugars derived from multiple renewable feedstocks into isobutanol through fermentation, and a proprietary separation unit that is designed to continuously separate isobutanol during the fermentation process. We developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity, as estimated by the RFA.

GIFT[®] is designed to permit (i) the retrofit of existing ethanol capacity to produce either isobutanol, ethanol or both products simultaneously, or (ii) the addition of renewable isobutanol or ethanol production capabilities to a facility's existing ethanol production by adding additional fermentation capacity side-by-side with the facility's existing ethanol fermentation capacity (collectively referred to as "Retrofit"). Having the flexibility to switch between the production of

isobutanol and ethanol, or produce both products simultaneously, should allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions. GIFT[®] is also designed to allow relatively low capital expenditure Retrofits of existing ethanol facilities, enabling a rapid route to isobutanol production from the fermentation of renewable feedstocks. We believe that our production route will be cost-efficient and will enable rapid deployment of our technology platform and allow our isobutanol and related renewable products to be economically competitive with many of the petroleum-based products used in the chemicals and fuels markets today.

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

Direct Use Markets

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

Specialty Chemicals

Isobutanol has direct applications as a specialty chemical. High-purity and chemical-grade isobutanol can be used as a solvent and chemical intermediate. We plan to produce high-purity and chemical-grade isobutanol that can be used in the existing butanol markets as a cost-effective, environmentally sensitive alternative to petroleum-based products. We believe that our production route will be cost-efficient and will allow for significant expansion of the historical isobutanol markets within existing butanol markets through displacing n-butanol, a related compound to isobutanol that is currently sold into butanol markets.

We estimate the total addressable worldwide market for isobutanol as a specialty chemical to be approximately 1.2 BGPY, or approximately \$7.0 billion annually, based on average 2012 ICIS isobutanol pricing.

Gasoline Blendstocks

Isobutanol has direct applications as a gasoline blendstock. Fuel-grade isobutanol may be used as a high energy content, low Reid Vapor Pressure (“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 (“BASCO”), we believe that isobutanol has direct applications as a blendstock in high value specialty fuels markets serving marine, off-road vehicles, small engine and sports vehicle markets.

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

Butene and Hydrocarbon Markets

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

Jet Fuel

We have demonstrated the conversion of our isobutanol into a renewable jet fuel blendstock that meets current ASTM International (“ASTM”) and U.S. military synthetic jet fuel blendstock performance and purity requirements. We have successfully delivered to the U.S. Air Force, the U.S. Army and the U.S. Navy a combined total of approximately 42,000 gallons of jet fuel made from isobutanol. We are working to obtain an ASTM standard specification for the use of such jet fuel blendstock in commercial aviation. We have already presented positive test results from fit-for-purpose testing of our biojet fuel to ASTM’s ‘alcohol-to-jet’ (“ATJ”) task force. The full ASTM specification for our ATJ fuel is expected to be issued in 2015.

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

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

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

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

We estimate the global market for PET to be approximately 50 million metric tons per year, or approximately \$100 billion annually, of which approximately 30% will be used for plastic bottles and containers. We have demonstrated the conversion of our isobutanol into renewable PX at the demonstration plant in Silsbee, TX. This demonstration

plant has been operational since September 2013 producing renewable PX.

3

Butenes

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

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

We estimate the total addressable worldwide market for butenes to be approximately 2.1 BGPY, or approximately \$6.7 billion annually.

Other Hydrocarbon Fuels

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

Our Retrofit Strategy

We plan to commercialize our isobutanol through a strategy of Retrofitting existing ethanol production facilities to produce isobutanol and related renewable products and have developed our technology platform to be compatible with the existing approximately 23 BGPY of global operating ethanol production capacity. We believe that our design will enable us to switch between the production of isobutanol and ethanol, or produce both products simultaneously, which will allow us to optimize asset utilization and cash flows at a facility by taking advantage of fluctuations in market conditions.

The Retrofit approach allows us to project lower capital outlays and a faster commercial deployment schedule than the construction of new plants. We believe the ability of GIFT[®] to convert sugars from multiple renewable feedstocks into isobutanol will enable us to leverage the abundant domestic sources of historically 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 are developing our Retrofit equipment package through our exclusive alliance with ICM, Inc. ("ICM"), a leading engineering firm that has designed approximately 50% of current North American operating ethanol production capacity, which the RFA estimates to be over 13.5 BGPY. We plan to secure access to existing ethanol production facilities through joint ventures, licensing arrangements, tolling partnerships and direct acquisitions. We will then work with ICM to deploy GIFT[®] through Retrofit of these production facilities.

In September 2010, we acquired a 22 million gallon per year ("MGPY") ethanol production facility in Luverne, Minnesota (the "Agri-Energy Facility"). The Agri-Energy Facility is a traditional dry-mill facility, which means that it uses dry-milled corn as a feedstock. In partnership with ICM, we developed a detailed Retrofit design for this facility and began the Retrofit in 2011. In May 2012, we commenced initial startup operations for the production of isobutanol at the Agri-Energy Facility. In September 2012, as a result of a lower than planned production rate of isobutanol we made the strategic decision to pause isobutanol production at the Agri-Energy Facility at the conclusion of startup operations to focus on optimizing specific parts of the process to further enhance isobutanol production rates. In 2013, we modified our Agri-Energy Facility which we believe will allow us to increase the production rate. In June 2013, we resumed the limited production of isobutanol operating one fermenter and one GIFT[®] separation system in order to (i) verify that the modifications had significantly reduced the previously identified infections, (ii) demonstrate that our biocatalyst performs in the one million liter fermenters at the Agri-Energy Facility, and (iii) confirm GIFT[®] efficacy at commercial scale at the Agri-Energy Facility. In August 2013, we expanded production capacity at the Agri-Energy Facility by adding a second fermenter and second GIFT[®] system to further verify our

results with a second configuration of equipment. For these initial production runs, we demonstrated fermentation operations at commercial scale combined with the use of our GIFT[®] separation system using a dextrose (sugar) feedstock. Based on the results of these initial production runs, in October 2013 we began commissioning the Agri-Energy Facility on corn mash to test isobutanol production run rates and to optimize biocatalyst production, fermentation separation and water management systems. In March 2014, we decided to leverage the flexibility of our GIFT[®] technology and modify the Agri-Energy Facility which we believe will enable the simultaneous production of isobutanol and ethanol. In line with our strategy to maximize asset utilization and site cash flows, this configuration of the plant should allow us to continue to optimize our isobutanol technology at a commercial scale, while taking advantage of the strong ethanol margins currently available in the marketplace.

Through December 31, 2013, we have incurred capital costs of approximately \$65.7 million on the Retrofit of the Agri-Energy Facility. The Retrofit of the Agri-Energy Facility includes a number of additional capital costs that are unique to the design of the

facility, including additional equipment that we believe will allow us to switch between ethanol and isobutanol production, modifications to increase the potential production capacity of GIFT® at this facility and the establishment of an enhanced yeast seed train to accelerate the adoption of improved yeast strains at this facility and at future plants. Capital expenditures at the Agri-Energy Facility also include upfront design and engineering costs, plant modifications identified as necessary during initial startup operations for the production of isobutanol and capitalized interest.

Until May 2012, when we commenced startup operations for the production of isobutanol at the Agri-Energy Facility, we derived revenue from the sale of ethanol, distiller's grains and other related products produced as part of the ethanol production process at the Agri-Energy Facility. Continued ethanol production during the Retrofit process allowed us to retain local staff for the future operation of the plant, maintain the equipment and generate cash flow. Our Retrofit strategy includes the ability to switch between the production of isobutanol and ethanol, or produce both products simultaneously, with an emphasis on maximizing cash flows at a site. We believe that we will be able to transition back to the production and sale of ethanol and related products at the Agri-Energy Facility, in whole or in part, if we were to project positive cash flows from ethanol operations versus maintaining the facility at idle or producing isobutanol, including any costs related to the transition, but there is no guarantee that this will be the case. As a result, the historical operating results of our subsidiary, Agri-Energy, LLC ("Agri-Energy"), and the operating results reported during the Retrofit to isobutanol production may not be indicative of future operating results for Agri-Energy or Gevo's consolidated results. The future return on our invested capital depends on our ability to maximize cash flows from the Retrofit of the Agri-Energy Facility. Through the date this Report was filed, we have not transitioned back to ethanol production.

In June 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. We will be entitled to a percentage of Redfield's profits, losses and distributions after commercial production of isobutanol has begun. As of December 31, 2013, we have incurred \$0.4 million in planning-related costs, such as project engineering and permitting costs, for the future Retrofit of the Redfield Facility. Based on our preliminary engineering estimates, we will need to raise additional debt or equity capital to Retrofit the Redfield Facility, but are not obligated to do so.

We are currently in discussions with several other ethanol plant owners that have expressed an interest in entering into joint ventures, licensing arrangements, tolling arrangements or selling their facilities to us for Retrofit. 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. We have also entered into a non-binding collaborative agreement with the Malaysian government's East Coast Economic Region Development Council, Malaysian Biotechnology Corporation and the State Government of Terengganu with the intent to develop a cellulosic biomass isobutanol facility in Southeast Asia.

We have also commenced a licensing strategy whereby a licensee would invest the capital for the Retrofit of its own ethanol plant. In return, Gevo, as the licensor, would expect to receive an up-front license fee and ongoing royalty payments from the project. In October 2013, Gevo signed a letter of intent with IGPC Ethanol Inc. to Retrofit their approximately 40 MGPY ethanol plant. In March 2014, Gevo signed a letter of intent with Porta Hnos S.A. to become the exclusive licensee of Gevo's GIFT technology in Argentina.

Customer Agreements

We anticipate commencing a limited commercial scale campaign for the production of isobutanol in 2014 at our Agri-Energy Facility to demonstrate commercial scale capacity and sell resulting product. We expect initial commercial production to be directed to serve the high-purity and chemical-grade markets, to provide introductory volumes to the specialty fuel blendstock markets in the U.S. and to be further processed at a demonstration plant near Houston, Texas, to fulfill contracts for various hydrocarbons applications such as ATJ and PX. Upon commencing commercial isobutanol production, we intend to produce and sell isobutanol distiller's grains ("iDGsTM") as an animal feed co-product in the same manner as distiller's grains are sold in the ethanol industry today.

