Risk Factors Comparison 2024-03-07 to 2023-03-09 Form: 10-K

Legend: **New Text** ~~Removed Text~~ Unchanged Text Moved Text Section

Our business is subject to a number of risks and uncertainties, many of which are beyond our control, including those described in Part I, Item 1A. Risk Factors of this annual report. These risks include, but are not limited to, the following: ~~•~~ **●** We have a history of net losses, and we may not achieve or maintain profitability. ~~•~~ **●** We will require substantial additional financing to achieve our goals, and a failure to obtain this capital when needed or on acceptable terms could force us to delay, limit, reduce or terminate our development and commercialization efforts. ~~•~~ **●** Our business is capital- intensive in nature, and we rely on external financing to fund our growth strategy, including the development and construction of our Net- Zero Projects and other similar growth projects. Limitations on access to external financing could adversely affect our operating results. ~~•~~ **●** Our proposed growth projects may not be completed or, if completed, may not **achieve profitability or** perform as expected. Our project development activities may consume a significant portion of our management' s focus, and if not successful, reduce our profitability. ~~•~~ **●** We may be unable to successfully perform under current or future offtake and sales agreements to provide our products, which could harm our commercial prospects. ~~•~~ **●** Our offtake agreements, including our take- or- pay agreements, are subject to significant conditions precedent and, as a result, the revenues that we expect from such contracts may never be realized. ~~•~~ **●** Fluctuations in the price of corn and other feedstocks may affect our cost structure. **●** ~~• Fluctuations in the price and availability of energy to power our facilities may harm our performance. •~~ Fluctuations in petroleum prices and customer demand patterns may reduce demand for renewable fuels. ~~•~~ **●** Any decline in the value of carbon credits associated with our products could have a material adverse effect on our results of operations cash flow and financial condition. ~~•~~ **●** We may not be successful in the commercialization of alcohol- to- SAF projects utilizing Axens technology. ~~•~~ **●** The technological and logistical challenges associated with producing, marketing, selling and distributing renewable hydrocarbon products are complex, and we may not be able to resolve such complexities in a timely or cost- effective manner, or at all. ~~•~~ **●** Our actual costs may be greater than expected in developing our growth projects, causing us to realize significantly lower profits or greater losses on our projects. ~~•~~ **●** We may be unable to produce renewable hydrocarbon products in accordance with customer specifications. ~~•~~ **●** Our experience may not be sufficient to operate commercial- scale facilities and we may encounter substantial difficulties operating commercial plants or expanding our business. ~~•~~ **●** Even if we are successful in producing our products on a commercial scale, we may not be successful in negotiating additional fuel offtake agreements or pricing terms to support the growth of our business. ~~•~~ **●** If we engage in acquisitions, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations. ~~•~~ **●** If we engage in joint ventures, we will incur a variety of costs and may potentially face numerous risks that could adversely affect our business and operations. ~~•~~ **●** If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs and harm our research and development efforts, make it more difficult to pursue partnerships or develop our own products or otherwise have a material adverse effect on our business. ~~•~~ **●** We may face substantial competition from companies with greater resources and financial strength, which could adversely affect our performance and growth. **●** ~~• Our future success will depend on our ability to maintain a competitive position with respect to technological advances. •~~ Business interruptions may have an adverse impact on our business and our financial results. ~~•~~ **●** Our business and operations would suffer in the event of IT system failures or a cyber- attack. ~~•~~ **●** We may engage in hedging transactions, which could adversely impact our business. ~~•~~ **●** 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. ~~•~~ **●** As our products have not previously been used as a commercial fuel in significant amounts, their use exposes us to product liability risks. ~~•~~ **●** We may not be able to use some or all of our net operating loss carry- forwards tax deductions to offset future taxable income. ~~•~~ **●** Competitiveness of our products for fuel use (including RNG) depends in part on government economic incentives for renewable energy projects or other related policies that could change. ~~•~~ **● In order to benefit from RINs and LCFS credits, our RNG projects are required to be registered and are subject to regulatory audit. ● Our RNG project has, and any future digester project may not be able to achieve the operating results we expect from these projects. ●** 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. ~~•~~ **●** 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 proceedings. **●** ~~• 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. •~~ We may not be able to enforce our intellectual property rights throughout the world. ~~•~~ **●** Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information. ~~•~~ **●** We have received funding from U. S. government agencies, which could negatively affect our IP rights. ~~•~~ **●** The U. S. renewable fuels industry is highly dependent upon certain federal and state legislation and regulation and any changes in legislation or regulation could have a material adverse effect on our results of operations, cash flows and financial condition. ~~•~~ **●** Reductions or changes to existing regulations and policies may present technical, regulatory and economic barriers, which may significantly reduce demand for renewable fuels or our ability to supply our products. ~~•~~ **●** Negative attitudes toward renewable energy projects from the U. S. government, other lawmakers and regulators, and activists could adversely affect our business, financial condition and results of operations. ~~•~~ **●** Any claims relating to improper handling, storage or disposal of hazardous 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 international activities may increase our exposure to potential liability under anti- corruption, trade protection, tax and other laws and regulations. ● The market price of our common stock may be adversely affected by the future issuance and sale of additional shares of our common stock or by our announcement that such issuances and sales may occur. ● Future issuances of our common stock or instruments convertible or exercisable into our common stock may materially and adversely affect the price of our common stock and cause dilution to our existing stockholders. ● Raising capital at a subsidiary, or project, level would result in lower revenues attributable back to us. **● Our inability to comply with applicable Nasdaq listing requirements could result in delisting of our common stock. ●** Our stock price may be volatile, and your investment in our securities could suffer a decline in value. ● The estimates and assumptions on which our financial projections are based may prove to be inaccurate. ● Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies. ● We do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment. ● 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 may be influenced by the research and reports that securities or industry analysts publish about us or our business. ● We are subject to anti- takeover provisions in our certificate of incorporation, our bylaws and under Delaware law that could delay or prevent an acquisition of the Company, even if the acquisition would be beneficial to our stockholders. ● Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers or employees. ~~PART I Items 1 and 2. Business and Properties. Company Overview Gevo, Inc. (Nasdaq: GEVO), a Delaware corporation founded in 2005, is a growth- oriented company with the mission of solving greenhouse gas emissions for those sectors of the transportation industry that are not amenable to electrification or hydrogen. We believe that the market size for hydrocarbon fuels will continue to remain significant in the long- term even with the rapid adoption of electric vehicles and hydrogen technologies. We also believe that we can achieve at least 1 billion gallons of hydrocarbon production and sales by 2030. We are focused on transforming renewable energy into energy- dense liquid hydrocarbons that can be used as renewable fuels, such as SAF, with the potential to achieve a " net- zero " greenhouse gas (" GHG") footprint. We believe that this addresses the global need of reducing GHG emissions with" drop in" sustainable alternatives to petroleum fuels. We use the Argonne National Laboratory' s GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation) model (the" GREET Model") to measure, predict and verify GHG emissions across the life- cycle of our products. The " net- zero " concept means Gevo expects that by using sustainably grown feedstock (i. e., low till, no- till and dry corn cultivation), renewable and substantially decarbonized energy sources, drop- in hydrocarbon fuels can be produced that have a net- zero, full life cycle footprint measured from the capture of renewable carbon through the burning of the fuel. Our primary market focus, given current demand and growing customer interest, is SAF. We believe that we also have commercial opportunities for other renewable hydrocarbon products, such as RNG; hydrocarbons for gasoline blendstocks and diesel fuel; ingredients for the chemical industry, such as ethylene and butenes; plastics and materials; and other chemicals. The global fuel consumption by commercial airlines was an all- time high of 95 billion gallons in 2019. However, due to the COVID- 19 pandemic, fuel consumption dropped to 52 billion gallons in 2020 and then reached 57 billion gallons in 2021, and throughout 2022 continued to trend back to pre- COVID levels. We believe that there is a growing and significant market demand for SAF production based on a number of factors, including: ● The Biden administration launched a new Sustainable Aviation Fuel Grand Challenge to meet the demand for sustainable aviation fuels by working with stakeholders to reduce costs, enhance sustainability, and expand production and use of sustainable aviation fuels that achieves a minimum of a 50 % reduction in life cycle GHGs compared to conventional fuel. In addition, the challenge will adopt the goal of supplying at least 3 billion gallons of SAF per year by 2030 and, by 2050, sufficient SAF to meet 100 % of aviation fuel demand, which is currently projected to be around 35 billion gallons per year. ● The International Air Transport Association (" IATA") 77th Annual General Meeting approved a resolution for the global air transport industry to achieve net- zero carbon emissions by 2050. IATA has 302 airline members, including Alaska Airlines, American Airlines, Delta Air Lines, FedEx Express, United Airlines and UPS Airlines. ● In March 2020, Delta Air Lines committed to spending $ 1 billion over the next 10 years on its objective to mitigate emissions from its global business going forward. Delta will invest in innovation, advancing clean air travel technologies, accelerating the reduction of carbon emissions and waste, and establishing new projects to mitigate the balance of emissions. ● The oneworld ® alliance committed to a target of 10 % SAF use across the alliance by 2030 and plans to reach net- zero emissions by 2050. ● The World Economic Forum' s Clean Skies for Tomorrow Coalition, a group of airlines, airports, fuel suppliers and other industry stakeholders working to advance the transition to net- zero flying, in September 2021 announced a joint goal to achieve a blend of 10 % SAF in global jet fuel by 2050. We believe that we possess the ability to convert various carbohydrate feedstocks through a fermentation process into alcohols and then transform the alcohols into renewable fuels and materials, through a combination of licensing of technology and engineering from third parties, and our own technology, know- how, and engineering. While we expect our major capital deployments to focus on the production of SAF, we recognize there are opportunities to operate in several different renewable fuels and materials markets and we will pursue those opportunities when appropriate based on customer interest, access to capital, and expected investment returns. Our SAF production process uses carbohydrates as a feedstock. Carbohydrates are plant matter that result from photosynthesis. Photosynthesis is the natural process by which carbon dioxide is captured from the air by plants. The carbon in carbohydrates is therefore renewable because it is already in the atmosphere. The carbohydrates are fermented to produce alcohol intermediate products (e. g., ethanol or isobutanol). The alcohol- based intermediates are then chemically processed to make renewable hydrocarbons. To achieve net- zero carbon intensity (" CI") across the whole life cycle of the products, we believe: ● carbohydrates with a low CI score must be used in~~

~~production; ● the energy (electricity and heat sources) used in production must be de- fossilized; and ● the products cannot contain fossil- based carbon. We believe sustainably grown industrial field corn (i. e., corn that is grown with precision agricultural techniques and low- till or no till cultivation to conserve nutrients, prevent water runoff and erosion) is the best feedstock to commercialize our SAF with initially because: ● it produces a significant amount of protein and vegetable oil for nutritional products on a per acre basis while also producing an abundance of low CI carbohydrates that can be captured and used as a feedstock for fuels and chemicals; ● the protein and oil that are produced can be easily separated and sold as co- products into the food chain markets. The revenue from the protein and oil sales serve to offset the cost of the corn feedstock; ● we believe that the carbon footprint of growing corn can be negative, according to calculations completed with the GREET Model, when a full suite of climate- smart agricultural practices is employed on appropriate acres of cropland; ● we believe that corn can achieve lower CI scores when grown with climate- smart agricultural techniques than waste raw materials or wood; and ● we believe that residual carbohydrates from corn are the lowest cost carbohydrates available as a renewable raw material, and the production is proven and scalable. We believe that utilizing sustainable agriculture practices to help solve GHG problems is a breakthrough that addresses the problem of GHGs without compromising sustainability or food supply. We also believe that it will be possible to create an incentive structure that rewards farmers to lower the CI score of their agricultural products and create a cycle of continuous improvement to their overall sustainability footprint. Building Out Production Capacity to Meet Demand We believe that we will be able to develop the marketplace, customers and production capacity to achieve at least 1 billion gallons of sales by 2030. Two approaches will be required to achieve this objective. The first approach, the development of greenfield sites (i. e., the development of a project on an undeveloped site), allows us to optimize production and the integration of technology. The second approach, leveraging installed alcohol production capacity, has the advantage that the fermentation capacity already exists via existing ethanol plants. Those existing ethanol plants would need to be decarbonized and hydrocarbon production capacity would need to be installed. In early 2021, we announced the concept of" Net- Zero Projects" as a series of planned facilities to produce energy dense liquid hydrocarbons using renewable energy and our proprietary technology. The concept of a Net- Zero Project is to convert renewable energy (such as, photosynthetic, wind, renewable natural gas, and biogas) from a variety of sources into energy dense liquid hydrocarbons that when burned in traditional engines, have the potential to achieve net- zero GHG emissions across the life- cycle of the liquid fuel based on the GREET Model, the pre- eminent science- based life- cycle analysis model. The GREET Model takes into account emissions and impacts cradle- to- cradle for renewable resource- based fuels including inputs and generation of raw materials, agriculture practices, chemicals used in production processes of both feedstocks and products, energy sources used in production and transportation and the end use of the products, which for fuel products is usually burning to release energy. Using sustainably grown corn or low CI corn as an input at a Net- Zero Project would comprise the following steps: (i) process the corn kernels to produce protein, oil and carbohydrate; (ii) ferment the carbohydrate into an alcohol; and (iii) convert the alcohol to SAF and other renewable hydrocarbon products. The combination of renewable carbon obtained from the carbohydrates, plus the reduction / elimination of fossil- based energy creates the advantage in driving the CI score to achieve net- zero. In addition to those practices, there is potential to sequester renewable carbon in the soil during corn production, and from capturing the CO2 from the production process, which should cause the CI scores to become negative across the whole life- cycle of the product as measured by the GREET Model. Greenfield Projects In January 2021, we announced our initial greenfield Net- Zero Project, Net- Zero 1 (" NZ1"), that is currently planned to be constructed at Lake Preston, South Dakota. NZ1 is currently being designed to produce approximately 62 million gallons per year (" MGPY") of total hydrocarbon volumes, including 55 MGPY of SAF. The plant is expected to be powered by wind- based electricity. The products expected to be produced at the NZ1 include: animal feed protein products, corn oil, SAF, naptha (gasoline) and / or diesel fuel. The co- products produced at the NZ1 and destined for the food chain, on a tonnage basis, are greater than that for renewable fuels. We believe that NZ1 will be operational in 2025. In addition to the Lake Preston, South Dakota site, we have identified several other greenfield sites that are attractive from the standpoint of fundamental economics, access to sustainable feedstocks, deployment of renewable energy and transportation of finished product to market. We have signed agreements and letters of intent with multiple parties to secure access to several sites. We believe any of these sites could be utilized for a future greenfield Net- Zero Project. Leveraging Existing Alcohol Production Capacity Based upon what we have learned as we develop and engineer our Net- Zero 1 Project, we believe that it should be possible, practical and financially attractive to convert existing ethanol plants to allow for the production of SAF and other renewable hydrocarbon products. In order to accomplish this conversion, two critical things are required: (i) the energy for the converted plant needs to be de- fossilized to achieve the CI scores required for the market; and (ii) a hydrocarbon production plant needs to be built. We believe that there are several existing ethanol plants that could be attractive for an alcohol- to- jet (" ATJ") plant that would be largely copied from our NZ1 Project. Renewable Natural Gas We are developing RNG and biogas projects to generate incremental profit and to create a long- term option to potentially supply RNG to our Net- Zero Projects as part of our long- term strategy to decarbonize SAF and other hydrocarbon fuels. In 2019, we began developing RNG projects. Animal manure can be digested anaerobically to produce RNG. RNG has value in markets such as California as well as in our hydrocarbon production process by helping us achieve carbon negative GHG emissions on our renewable hydrocarbon products. The end products resulting from such a decarbonization process have lower CI scores and increased market value, in addition to having a more positive impact on the environment. We developed our initial RNG project, Gevo NW Iowa RNG, LLC (" Gevo RNG"), to generate RNG captured from dairy cow manure which is supplied by three dairies located in Northwest Iowa totaling over 20, 000 milking cows. When fully operational, the Gevo RNG project is expected to generate approximately 355, 000 MMBtu of RNG per year. We financed the construction of the Gevo RNG project in April 2021 with the $ 68, 155, 000 of Solid Waste Facility Revenue Bonds (Gevo NW Iowa RNG, LLC Renewable Natural Gas Project), Series 2021 (Green Bonds) (the" 2021 Bonds") issued by the Iowa Finance Authority in a public offering for the benefit of Gevo RNG and we commenced construction in April 2021. In January 2022, Gevo RNG began start- up operations,~~

and in the third quarter of 2022 we ramped up its production of biogas, raw biogas upgrading to RNG, and the injection of RNG into an interconnected natural gas pipeline. The majority of the revenue from the associated environmental attributes, however, is expected to commence in 2023 due to the timing of the approval and documentation process for the related credits under the federal Renewable Fuel Standard Program (“ RFS Program ”) and the Low Carbon Fuel Standard (“ LCFS ”) in California, including the verification of carbon intensity levels and other administrative requirements. We made incremental improvements and optimizations at the Gevo RNG project by investing in capital projects that are expected to improve its CI score and expand its capacity. Gevo’ s estimated share of the capital cost for these improvements is approximately $ 1. 9 million. The improvement and optimization work will continue through 2023 as one of the dairies expands. In June 2022, we amended our lease with the expanding dairy to provide the Gevo RNG project with additional manure, which is expected to increase our RNG production. We believe the trust and reputation we have attained in the RNG industry, in combination with our understanding of the various and complex environmental attributes, gives us a competitive advantage. We leverage our relationships to identify and execute new project opportunities. Typically, new development opportunities come from our existing relationships with dairy owners who value our reputation in the industry. We exercise financial discipline in pursuing projects by targeting attractive risk- adjusted project returns, whether selling RNG into the markets or using it to lower CI scores at our Net- Zero Projects. We will monitor biogas supply availability across our portfolio and seek to maximize our production by expanding operations when economically feasible. Competitive Advantages We believe that our vertically integrated set of technologies and business systems (including our extensive portfolio of several hundred patents and patent applications, trade- secrets, and proprietary production technologies) creates competitive advantage through (i) access to multiple opportunities to drive the CI score of our products down, (ii) opportunities to address needs in the chemicals, food, feed, plastics and materials markets, (iii) to drive production costs very low to maximize margins, (iv) deploy production technology that is readily scalable and robust from an operating point of view, (v) through Verity Tracking, and (vi) modular design of production facilities which can help to facilitate rapid deployment of production assets. The vertical business systems enable Gevo to capture value from the selling protein, vegetable oil, capturing biogenic carbon, generating carbon value at state and federal levels. Carbohydrates as Feedstocks Carbohydrate feedstocks exceed all other potential renewable carbon feedstock sources by several orders of magnitude on a worldwide basis. In the Midwest region of the U. S. corn is an ideal feedstock for multiple reasons. On a per acre basis, field corn (not food corn) is one of the most productive crops to produce protein and oil, as well as carbohydrates. The non- carbohydrate co- products from the field corn kernel represent the majority of the nutritional value of the kernel and could be delivered into the food chain. By selling the protein, oil and animal feed into the food chain markets, it would offset a portion of the cost of acquiring the corn. We believe about 50 % of the cost of corn can be offset by manufacturing valuable products for the food chain. The remaining carbohydrates are used as a feedstock for fermentation. We believe that in the U. S., carbohydrates produced from corn are the most sustainable and lowest cost renewable carbon source that can be used as feedstock for alcohol to hydrocarbon processes to produce hydrocarbon fuels. In the future, we expect to evaluate the commercial use of carbohydrates from sources other than corn (e. g., of sugar cane, molasses or other cellulosic sugars derived from wood, agricultural residues and waste) as the cost to acquire those carbohydrates becomes competitive, and the sustainability profile (and related CI scores) become acceptable. We expect our future feedstocks to be chosen on the collective basis of (i) cost, (ii) carbon and / or sustainability footprint with associated value, (iii) positive contribution to food chain where possible, and (iv) availability of the feedstock at a practical scale. Proprietary Carbohydrate Conversion Technologies Three technologies are required to convert carbohydrates to SAF and other renewable hydrocarbons: (i) the fermentation process to convert carbohydrates to alcohols; (ii) the chemical processing technology to make the hydrocarbon fuel products; and (iii) the technology and know- how to mitigate the fossil based GHG emissions from the integrated fermentation and fuel production plants. We have two ways of producing alcohols via fermentation from carbohydrates: (i) ethanol, which has two carbons, and (ii) isobutanol, which has four carbons. Ethanol can be a building block for SAF, diesel fuel, naptha and chemical products. Isobutanol can be a building block for gasoline hydrocarbons, SAF and chemical products. Ethanol technology is well known and readily available. Isobutanol technology is relatively new and has yet to be scaled to the size of current ethanol production, but it offers long- term potential in enabling lower CI scores and allowing for the production of chemical products, and high value gasoline hydrocarbons. We believe that we possess proprietary know- how to integrate alcohol production and chemical processing to make SAF and other renewable hydrocarbons that should lower the CI score of our renewable hydrocarbon products. Alcohols can be converted to hydrocarbon products with catalytic chemical processing techniques analogous to those used in the petrochemical industry. In September 2021, we signed an agreement with Axens North America, Inc. (" Axens") for their technology on this process since they have already scaled it up and they have licensed to many commercial production facilities. The agreement establishes a strategic alliance aimed at accelerating the commercialization of sustainable alcohol- to- SAF projects in the United States. As part of the alliance, Axens brings technologies with over 60 related patents, engineering packages, proprietary catalysts and certain proprietary equipment required to convert alcohols into SAF and they will provide certain process guarantees to us. Integration of the production systems with various renewable or de- fossilized energy sources will be essential. Our Net- Zero plant concept depends upon a variety of decarbonization methods to ensure the operability of the plant while also reducing and eliminating the need for fossil- based energy. We have partnered with companies such as Zero6 Energy, formerly Juhl Energy, to develop the technology suite for this decarbonization. To prove out technologies, we own and operate a development scale plant in Luverne, Minnesota (the" Luverne Facility"). This development scale plant enables us to solve the practical issues involved with scale up of new technologies and testing of new unit operations. Gevo may use the Luverne Facility in the future to prove out processes, process concepts, unit operations and for other purposes in order to optimize feedstocks and the processes used for producing hydrocarbons from alcohols. Currently, the activities at the Luverne Facility are minimized to care and maintenance, as the Company has shifted focus to the Net- Zero Projects. Verity Carbon Solutions It is critical that we can prove the CI of our products, ensuring that these values are accurate and auditable. The

~~mission of Verity Carbon Solutions, including Verity Tracking (" Verity Tracking"), is to document CI and other sustainability attributes, and then apply Distributed Ledger Technology (" DLT") (commonly referred to as the blockchain) to create an immutable record of the products throughout the entire business system. Verity Tracking would start from calculating carbon intensity of feedstocks from data collected at the farm and field level. We plan to track these feedstocks through production at our plants where we intend to use a mix of renewable electricity, biogas, renewable hydrogen and other potentially decarbonized energy sources in production. The CI data would then be combined to deliver a comprehensive CI reduction in a finished renewable fuel. The resulting CI reduction value has potential to be quantified, sold and / or traded in voluntary or compliance carbon markets while preventing double- counting. We believe that in the future, agricultural practices have the potential to sequester large quantities of CO2 as soil organic carbon. Verity Tracking intends to document and account for that capture in conjunction with scientifically supported measurement techniques. The potential for Verity Tracking is broad and could be applicable to tracking the CI of various items, including, but not limited to, renewable fuels, food, feed and industrial products through the entire business system and value chain. We are working with Blocksize Capital on the development of Verity Tracking. Our Facilities and Projects Development Scale Facility As described above, we currently own a development scale plant, the Luverne Facility. The Luverne Facility was originally constructed in 1998 and is located on approximately 55 acres of land containing approximately 50, 000 square feet of building space. During the third quarter of 2022, the activities at our Luverne Facility were transitioned to care and maintenance, as we have shifted focus to our Net- Zero Projects. The workforce adjustment resulted in us retaining key personnel and redeploying some resources to our Net- Zero 1 Project and RNG project to provide valuable knowledge and experience for the future strategic growth of the Company. As a potential development site, future operations, if any, will be tailored to support a focus on advancing our technology, process testing, optimizing alternative feedstocks and yeast strains, and unit operations as well as partnership development for integrated GHG reductions. The Luverne Facility is well equipped and positioned as a development site. The Luverne Facility also provides a unique opportunity to showcase our decarbonization and business systems and raise awareness for future partnerships, project offtakers, investors, and local communities, even though operations at the site have been minimized. RNG Facilities We developed Gevo' s initial RNG project, Gevo RNG, in Northwest Iowa to generate RNG captured from dairy cow manure which is supplied by three dairies located in Northwest Iowa totaling over 20, 000 milking cows. When fully operational, the Gevo RNG project is expected to generate approximately 355, 000 MMBtu of RNG per year. The RNG is sold into the California market under dispensing agreements BP Canada Energy Marketing Corp. and BP Products North America Inc. (collectively," BP") has in place with Clean Energy Fuels Corp., the largest fueling infrastructure in the U. S. for RNG. We commenced construction of the Gevo RNG project in April 2021, and in the third quarter of 2022, the Gevo RNG project ramped up production of biogas, raw biogas upgrading to RNG and the injection of RNG into an interconnected natural gas pipeline. We have four leases for land and three fuel supply agreements related to the Gevo RNG project. Under these contracts, we lease land from dairy farmers on which we have built a gas upgrading unit, three anaerobic digesters, related equipment and pipelines. These leases expire at various dates between 2031 and 2050. Development Properties In July 2022, we purchased approximately 240 acres of land for NZ1 in Lake Preston, South Dakota, followed by a groundbreaking ceremony in Lake Preston in September 2022. We believe NZ1 is on schedule with initial volumes of SAF expected to be delivered in 2025. Water and wind energy development agreements were executed in the third quarter of 2022, and other key milestones are on track for completion in accordance with our comprehensive project plan. Headquarters Our corporate headquarters and research and development laboratories are located in Englewood, Colorado and are leased. Our lease terminates in January 2029 and the leased space is approximately 19, 241 square feet. Competition We face competitors in each market that we focus on, some of which are limited to individual markets, and some of which will compete with us across all of our target markets. Many of our competitors have greater financial resources, more comprehensive product lines, broader market presence, longer standing relationships with customers, longer operating histories, greater production capabilities, stronger brand recognition and greater marketing resources than we do which could make it difficult for us to compete. Our renewable hydrocarbons, including SAF, compete with the incumbent petroleum- based fuels industry, as well as renewable fuels 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. High and volatile oil prices should provide an opportunity for renewable producers relying on biobased feedstocks like corn, which in recent years have had lower price volatility than oil, to compete. Renewable fuels companies may provide substantial competition in the hydrocarbon fuels markets. These renewable fuel competitors are numerous and include both large established companies and numerous startups. Government tax incentives for renewable fuel producers and regulations such as the Inflation Reduction Act Clean Fuel Production Credit, RFS Program, California LCFS program, and programs emerging in other states such as Illinois help provide opportunities for renewable fuels producers to compete. We believe that we have the advantage of being able to target conversion of alcohols into specific high- value molecules such as SAF, other renewable hydrocarbons and various chemical products. Intellectual Property and Technologies We seek protection for our intellectual property under patent, copyright, trademark and trade secret laws. Since the Company was founded, we have submitted hundreds of patent applications in the U. S. and in various foreign jurisdictions. These patent applications are for our technologies and specific methods and products that support our business. We continue to file new patent applications, for which terms extend up to 20 years from the filing date in the U. S. and for various terms in international jurisdictions. We expect to continue to develop and build our intellectual property portfolio to address unmet technology and market needs going forward. We have filed and prosecuted, and intend to 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. We have a strong proprietary technology position. Our technology pathway converts carbohydrates to alcohols via a fermentation process. The alcohols are then converted to hydrocarbon fuels using a catalytic chemical process. By using~~

~~renewable energy across the production process, in combination with sustainable feedstocks, like low carbon non- food corn, the GHG emissions can be substantially reduced or eliminated as measured across the whole of the life- cycle. The processes used to convert carbohydrates to drop in hydrocarbons using isobutanol as the intermediate alcohol is protected by a global patent portfolio with more than 300 patents, as well as proprietary processes and know- how. Certain production technology to convert ethanol to hydrocarbons has been exclusively licensed to Gevo in the U. S. by Axens, and incorporates more than 60 patents, as well as proprietary production technology and know- how. Additionally, we have multiple patents and patent applications covering the ethanol to hydrocarbons routes. We have a proprietary fermentation yeast biocatalyst that has been designed to consume carbohydrates and produce isobutanol as a product. Our technology team developed our proprietary biocatalyst to efficiently convert fermentable sugars of all types into isobutanol by engineering isobutanol pathways into the biocatalyst. The advantage of this biocatalyst is that it (i) works in large scale fermentation systems, and (ii) can operate in complex biological mixtures such as corn mash or molasses and produce a suitable clean isobutanol product. The technology is designed to use carbohydrate feedstocks, similar to ethanol technology. For example, carbohydrates from non- food corn, sugar cane, molasses or cellulosic sugars each could be used depending upon cost and availability. While we believe that the majority of the development work on a commercially viable isobutanol producing yeast is complete, we expect to continue to make additional improvements targeted to improve its performance. Government Regulation- Environmental Compliance Regulation by governmental authorities in the U. S. and other countries is a significant factor in the development, manufacture and marketing of second- generation renewable fuels. In particular, renewable fuels 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 renewable fuels. The process of seeking required approvals and the continuing need for compliance with applicable statutes and regulations requires the expenditure of substantial resources. 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 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 or 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 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 which cannot be estimated at this time. 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. Our products benefit from the RFS Program in that our RNG is currently eligible for Renewable Identification Numbers (" RINS") that have value based on the current RFS Program. The RFS Program could change, impacting our products, positively or negatively. Various systems are being put in place around the world to measure CI and the reduction of GHGs, with the intent of creating a system to monetize the value of the reduction of carbon. In order to benefit from such systems, companies need to have their products qualified through a regulatory process. There is no guarantee that any benefit could be gained. In 2019, we submitted a design pathway application to the California Air Resources Board to gain approval for low- carbon intensity ethanol utilizing beef manure biogas as a process input under the LCFS, and we may also seek approval under similar programs in the future. People and Culture Higher Purpose Our employees strive to make environmental and social impacts in the world. Our employees are also guided by our code of business conduct and ethics, which helps them to uphold and strengthen the standards of integrity and innovation while continuously improving our environment, health, safety and sustainability, which has defined~~

~~us since our founding. Our world and business may change, but our core values are a constant in everything we do. Employees As of December 31, 2022, we had 89 employees in North America. We also retain consultants, independent contractors, and temporary and part- time workers. None of our facilities in the U. S. are covered by collective bargaining agreements. The Gevo team is made up of scientists, research and development experts, operations, administrative and business development professionals, skilled trades and energy technicians. TotalEmployment Full- time87Part- time2Total89 Department Production26Research and Development22General, administrative and business development41Total89 Location Colorado42Minnesota10South Dakota10Texas8New Mexico6Iowa4Other States8Foreign1Total89 Code of Business Conduct and Ethics We are committed to conducting business in accordance with the highest ethical standards. This means how we conduct ourselves is more than just a matter of policy and law, it is a reflection of our core values. Our code of business conduct and ethics provides specific guidance to all of our employees, outlining how they can and must uphold and strengthen the integrity that defines us. We maintain a global compliance hotline to allow for concerns to be brought forward. Health and Safety We strive to achieve safety excellence through increased focus on leading indicators, risk reduction, health and safety management systems, and prevention to protect the public health and environmental quality in our communities, as well as the health and safety of our employees, customers and neighbors. We strive to comply with all health and safety laws and regulations that apply to our business. We provide site safety orientation for all employees and guests as well as periodic refresher training for employees at the level appropriate for their role. We have received no violations and are proud that we have never had a fatality at a Gevo facility. During 2022, we had two reportable injuries, no lost time incidents, and a total recordable injury rate of 2. 09. Throughout the COVID- 19 pandemic, we have remained focused on protecting the health, safety and well- being of our employees and managing the business to preserve our workforce. We provide time off for vaccinations and illness related to COVID- 19. For all positions for which remote work is possible, employees have the choice to work from their home location to minimize potential exposure and ensure business continuity. We have implemented safety plans and protocols following guidance from the Centers for Disease Control, World Health Organization, and other federal, state, local and international regulations, and we continue to evolve our corporate and site- specific crisis management teams to actively manage and ensure compliance with these plans and protocols. We are serious about maintaining the well- being of our employees and families, paying 100 % of the premiums for health, dental and vision insurance for whole families. We also pay the premiums for disability and life insurance to assist in maintaining living standards when issues arise. We continue to endeavor to be agile in addressing employee needs in the quickly evolving environment while also being transparent across the workforce. Diversity and Inclusion In order to ensure that each of our employees can bring their full selves to work, we strive to foster a diverse, equitable, and inclusive workplace where all voices are heard and included. We continue to champion policies, practices and behaviors that amplify innovation on behalf of people, community and the planet. Diversity, equity and inclusion (" DEI") are critical to our success as an organization. Incorporating DEI into our business practices enhances innovation and enables our best talent to thrive in an environment where diverse perspectives are celebrated. This requires deliberate intention and action on the part of every employee and leader. We will continue to push forward on the path to a more diverse, equitable and inclusive culture and have committed to interview and consider at least one qualified woman and person of color for every open role, vice president and higher, including at the senior executive level and the Board of Directors. In 2021, we launched our first women' s affinity group, led by one of our Board members, Ruth Dreessen, to provide our women with the opportunity for mentorship from leaders throughout the organization. We are working to improve gender and diversity at all levels of the business. As of December 31, 2022, women make up approximately 28 % of our employee population and approximately 22 % of our leadership roles, defined as manager and above. Further, employees identifying as diverse make up approximately 19 % of our employee population and approximately 17 % of our leadership roles, defined as manager and above. In 2022, we saw an increase of approximately 4 % in diverse leaders within the organization. Lastly, we increased the gender diversity of the Gevo Board to 29 % and are looking to expand the Board further to increase diversity and / or gender parity. Attraction, Retention and Engagement We are currently operating in an extremely challenging talent market. Market hiring surges, increased attrition and shifting work expectations have significantly impacted the attraction and retention of talent, creating a hyper- competitive marketplace. We understand that our long- term success will require a differentiated, targeted approach to talent attraction and retention. In response to these challenges, we took a number of actions in 2022 in an effort to enhance our ability to attract and retain diverse talent: • We continued the annual talent review process to advance our internal talent placements, as well as plan for succession and growth. • We launched our flexible work approach that balances the benefits of working remotely with the experience of working on- site. • Our employees are enthusiastic about enriching their communities. We implemented a program to recognize their dedication and began matching community service efforts with up to 16 hours of paid time off. We are committed to providing employment opportunities for people in our local communities. In 2022, we began partnering with local technical colleges and universities to offer scholarships, tuition reimbursement and internships to students in the Energy programs and partner with them in showcasing non- traditional careers to achieve gender equity. Our employees are highly engaged with our mission. We promote discussion and alignment through monthly town hall sessions with all employees, led by our CEO, Patrick Gruber, as well as fostering open door conversations with all members of management. Further, we found that our employees could be effective while working outside the Gevo offices. Gevo' s management philosophy is to lead with trust in our employees and support a culture which enables employees to do their best work. And, as a company focused on reducing the world' s carbon footprint, we hold that value for our employees as well and encourage them to reduce their personal carbon footprint and work from their homes, as their respective positions allow. This policy has allowed us to attract talent we might not otherwise have if we had restricted hiring to certain geographies. Human Rights Gevo honors human rights and respects the individual dignity of all persons globally. Our commitment to human rights requires that we understand and carry out our responsibilities consistent with our values and practices. We strive to ensure that human rights are upheld for our employees and all workers in our supply chain. Our commitment to human rights is defined in the code of business conduct and ethics, our~~

~~supplier code of conduct, our dealer code of conduct and related policies and practices, which establish clear guidelines for our employees, suppliers and dealers while helping to inform our business decisions. We do not tolerate human rights abuses, such as forced labor, unlawful child labor or human trafficking. We are proud to contribute to the places where we work and support the residents of these places. Available Information Our Annual Reports on Form 10- K, Quarterly Reports on Form 10 - Q, Current Reports on Form 8- K and any amendments to those reports (including related exhibits and supplemental schedules) filed or furnished pursuant to Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934, as amended, are made available, free of charge, through our website, as soon as reasonably practicable after such reports have been filed with, or furnished to, the SEC. Our website address is www. gevo. com. Information on our website is not incorporated by reference into, and does not constitute a part of, this report. Item 1A. Risk Factors You should carefully consider the risk factors described below before you decide to invest in our 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 and uncertainties not presently known to us or that we currently believe are immaterial may also 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. Risk Related to our Business and Strategy We incurred net losses of $ 98. 0 million and $ 59. 2 million during the years ended December 31, 2022 and 2021, respectively. As of December 31, 2022, we had an accumulated deficit of $ 655. 4 million. We expect to incur losses and negative cash flows from operating activities for the foreseeable future. We currently derive revenue primarily from the sale of RNG and related environmental attributes produced at Gevo RNG. Furthermore, we expect to spend significant amounts on the further development and commercial implementation of strategic plans and technology. We also expect to spend significant amounts on (i) developing and financing our Net- Zero 1 Project and other similar growth projects, (ii) marketing, general and administrative expenses associated with our planned growth, and (iii) management of operations as a public company. As a result, we expect to continue to incur new losses for the foreseeable future. We do not expect to achieve profitability during the foreseeable future and may never achieve it. If we fail to achieve profitability, or if the time required to achieve profitability is longer than we anticipate, we may not be able to continue our business operations. Even if we do achieve profitability, we may not be able to sustain or increase profitability on a quarterly or annual basis. We will require substantial additional financings 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. We operate in a capital- intensive industry and will need substantial amounts of capital to execute on our business plans. We believe that we will continue to expend substantial resources for the foreseeable future on further growth of our business, including developing, constructing, financing and acquiring facilities necessary for the production of our products on a commercial scale. These expenditures may include costs associated with our Net- Zero Projects, research and development, developing biogas processing projects and wind projects, obtaining government and regulatory approvals, and negotiating offtake agreements for our products. In addition, other unanticipated costs may arise. To date, we have funded our operations primarily through equity offerings and issuances of debt. Based on our current plans and expectations, we will require additional funding at the corporate and / or project level to achieve our goals. We currently expect to finance the construction of NZ1 and any other Net Zero Projects at the subsidiary level using third party capital. In addition, our plans and expectations may change as a result of factors currently unknown to us, and we may need additional funds sooner than expected and may seek to raise additional funds through public or private debt or equity financings. 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 financing and constructing our Net- Zero Projects, including NZ1; • the timing of and costs involved in obtaining permits; • the ability for us to deploy strains of yeast with improved performance that help to lower capital cost; • the timing and costs associated with any future RNG projects or expansion of the Gevo RNG project; • the costs involved in maintaining the Luverne Facility; • our ability to gain market acceptance for our products; • our ability to negotiate additional offtake agreements for the products we produce, and the timing and terms of those agreements, including terms related to sales price; • our ability to negotiate sales of our products and the timing and terms of those sales, including terms related to sales price; • our ability to 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 Net- Zero Projects, including NZ1; • our plans to enter into agreements with strategic partners; • our development of future RNG facilities or expansion of the Gevo RNG project; • our efforts to prepare, file, prosecute, maintain and enforce patent, trademark and other intellectual property rights and defend against claims by others that we may be violating their intellectual property rights; and / or • our activities in negotiating and performing under offtake agreements that may be necessary for the commercialization of our products. Our business is capital- intensive in nature and we rely on external financing to fund our growth strategy, including the development and construction of our Net- Zero Projects and other similar growth projects. Limitations on access to external financing could adversely affect our operating results. We are in a capital- intensive business and we rely heavily on external financing for the costs of development and construction of our growth projects, such as NZ1, and other projected capital expenditures. Completion of our growth projects will require significant capital expenditures and construction costs. The recovery of the capital investment in our growth projects will generally occur over a long period of time. As a result, we must obtain funds from external sources to help develop and construct our existing project pipeline, to help finance the acquisition of system components, to help identify and develop new projects, to help fund research and development expenses and to help pay the general and administrative costs of operating~~

~~our business. We may not be able to obtain the needed funds on terms acceptable to us, or at all. If we are unable to raise additional funds when needed, we could be required to delay development and construction of projects, reduce the scope of, abandon or sell some or all of our growth projects or default on our contractual commitments in the future, any of which would have a material adverse effect on our business, financial condition and operating results. We plan to grow our business by building multiple production facilities, including greenfield and brownfield projects. Development projects may require us to spend significant sums for engineering, permitting, legal, financial advisory and other expenses before we determine whether a development project is feasible, economically attractive or capable of being financed. Our development projects are typically planned to be large and complex, and we may not be able to complete them. There can be no assurance that we will be able to negotiate the required agreements, overcome any local opposition, or obtain the necessary licenses, permits and financing. Failure to achieve any of these elements may prevent the development and construction of a project. If that were to occur, we could lose all of our investment in development expenditures and may be required to write- off project development assets. We may be unable to successfully perform under current or future offtake agreements to provide our products, which could harm our commercial prospects. We have entered into several offtake agreements pursuant to which we agreed to sell our products. Under certain of these offtake agreements, the purchasers agreed to pay for and receive, or cause to be received by a third party, or pay for even if not taken, the renewable hydrocarbon products under contract (a " take- or- pay " arrangement). The timing and volume commitment of certain of these agreements are conditioned upon, and subject to, our ability to complete the construction of a new or expanded production facility (the " Facility "). In order to commence construction of and complete the Facility, we must secure third- party financing. While we believe that we can secure adequate financing in order to commence construction of and complete the Facility and, in turn, perform under these agreements, we cannot assure you that we will be able to obtain adequate financing on favorable terms, or at all. Furthermore, we have not demonstrated that we can meet the production levels and specifications contemplated in certain of our current offtake agreements, or future offtake agreements. If our production is slower than we expect, if demand decreases or if we encounter difficulties in successfully completing the Facility, our counterparties may terminate our existing offtake agreements and potential customers may be less willing to negotiate definitive offtake agreements with us, and therefore cause our performance to suffer. In addition, from time to time, we may enter into letters of intent, memoranda of understanding and other largely non- binding agreements or understandings with potential customers or partners in order to develop our business and the markets that we serve. We can make no assurance that legally binding, definitive agreements reflecting the terms of such non- binding agreements will be completed with such customers or partners, or at all. Our offtake agreements, including our take- or- pay purchase agreements, are subject to significant conditions precedent and, as a result, the revenues that we expect from such contracts may never be realized. Our ability to realize revenue under our offtake agreements, including our take- or- pay purchase agreements, is not guaranteed and is subject to significant conditions precedent. In order to actually realize revenue under such contracts, we are required to, among other things, complete the Facility or acquire, construct or retrofit a facility at another suitable location, which is, in turn, dependent on our ability to secure adequate financing. If we are unable to raise sufficient capital on acceptable terms, or at all, the revenues under such contracts may never be achieved. Our ability to obtain adequate financing will depend on, among other things, the status of our product development, our financial condition and general conditions in the capital, financial and debt markets at the time such financing is sought. In addition, any further equity or debt financings could result in the dilution of ownership interests of our then- current stockholders. Furthermore, even if we are able to satisfy all conditions precedent to our take- or- pay contracts, including completion of the Facility or acquiring, constructing or retrofitting a facility at another suitable location and securing adequate funding, we still may never realize the full amount of revenue that we expect or project to earn from such contracts. In any event, failure to realize the expected revenue thereunder would have a material adverse effect on our business, financial condition, results of operation and liquidity. Our approach to the renewable fuels and chemicals markets will be dependent on the price of corn and other feedstocks that will be used to produce our products. A decrease in the availability of plant feedstocks or an increase in the price may have a material adverse effect on our financial condition and operating results. At certain levels, prices may make these products uneconomical to use and produce as we may be unable to pass the full amount of feedstock cost increases on to our customers. The price and availability of corn and other plant feedstocks may be influenced by general economic, market and regulatory factors. These factors include weather conditions, farming decisions, government policies and subsidies with respect to agriculture and international trade and global demand and supply. For example, corn prices may increase significantly in response to drought conditions in the midwestern region of the U. S. and any resulting decrease in the supply of corn could lead to the restriction of corn supplies, which in turn could cause further increases in the price of corn. The significance and relative impact of these factors on the price of plant feedstocks is difficult to predict, especially without knowing what types of plant feedstock materials we may need to use. Our production facilities use significant amounts of energy to produce our products. Accordingly, our business is dependent upon electricity and natural gas produced by us or supplied by third parties. The prices and availability of energy resources are subject to volatile market conditions. These market conditions are affected by factors beyond our control, such as weather conditions, overall economic conditions and governmental regulations. Should the price of energy increase or be unavailable, our business could suffer and have a material adverse impact on our results of operations. In addition, a lack of availability of sufficient amounts of renewable energy to effectively decarbonize our facilities could have a material impact on our business and results of operations Our renewable fuels may be considered an alternative to petroleum- based fuels. Therefore, if the price of oil falls, any revenues that we generate from renewable fuel 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 renewable fuels, may decrease due to economic conditions or other factors outside of our control, which could have a material adverse impact on our business and results of operations. Any decline in the value of carbon credits associated with our products could have a material adverse effect on our results of operations, cash flow and financial condition. The sale of our products is often dependent on the value of~~

~~carbon credits under the RFS Program, LCFS and other similar regulatory regimes. The value of these credits fluctuates based on market forces outside of our control. There is a risk that the supply of low- carbon alternative fuels outstrips demand, resulting in the value of carbon credits declining. Any decline in the value of carbon credits associated with our products could have a material adverse effect on our results of operations, cash flow and financial condition. Our future success on alcohol- to- SAF projects depends on our ability to produce commercial quantities of SAF from ethanol using Axens technology. We may encounter challenges in scaling up the Axens technology and / or the technology may not work as expected, or at all on a commercial scale. In addition, the cost to construct commercial alcohol- to- SAF facilities or the production costs associated with the operation of such facilities may be higher than we project. If we encounter such difficulties, this could significantly affect our profitability and have a material adverse impact on our business and results of operations. The technological and logistical challenges associated with producing, marketing, selling and distributing renewable hydrocarbon products are complex, and we may not be able to resolve any difficulties that arise in a timely or cost- effective manner, or at all. We have limited experience operating, and have never built, a commercial renewable hydrocarbon facility. We believe that we understand the engineering and process characteristics necessary to successfully build the additional facilities that we are contemplating and to scale up to larger facilities. We expect to incur additional capital expenditures to produce renewable hydrocarbon products at our Net- Zero Projects. Our assumptions, however, may prove to be incorrect. Accordingly, we cannot be certain that we can consistently produce renewable hydrocarbon products in an economical manner in commercial quantities. If we fail to consistently produce renewable hydrocarbon products economically on a commercial scale or in commercial volumes, our commercialization of renewable hydrocarbon products and our business, financial condition and results of operations will be materially adversely affected. We generally must estimate the costs of completing a specific project to prior to the construction of the project. The actual cost of labor and materials may vary from the costs we originally estimated. These variations may cause gross profit for a project to differ from those we originally estimated. Cost overruns on our growth projects could occur due to changes in a variety of factors such as: • failure to properly estimate costs of engineering, materials, equipment, labor or financing; • unanticipated technical problems with the structures, materials or services; • unanticipated project modifications; • changes in the costs of equipment, materials, labor or contractors; • our suppliers' or contractors' failure to perform; • changes in laws and regulations; and • delays caused by weather conditions. As projects grow in size and complexity, multiple factors may contribute to reduced profit or greater losses, and depending on the size of the particular project, variations from the estimated project costs could have a material adverse effect on our business. For example, if project costs exceed our estimates, it could cause us to realize significantly lower profits or greater losses on our projects. We may be unable to produce renewable hydrocarbon products to meet customer specifications, including those defined in ASTM D7862" Standard Specification for Butanol for Blending with Gasoline for Use as Automotive Spark- Ignition Engine Fuel," ASTM D7566" Standard Specifications for Aviation Turbine Fuel Containing Synthesized Hydrocarbons" or specifications to carbon intensity standards. We may need to add additional processing steps or incur capital expenditures in order to meet customer specifications which could add significant costs to our production process. If we fail to meet specific product or volume specifications contained in an offtake agreement, the customer may have the right to seek an alternate supply of renewable hydrocarbon products 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, thus having a material adverse impact on our business and results of operations. We have limited experience operating commercial- scale RNG and renewable hydrocarbon facilities concurrently. Accordingly, we may encounter significant difficulties operating at a commercial scale once we expand our production capabilities, including at our Gevo RNG and Net- Zero Projects. The skills and knowledge gained in operating our current facilities may prove insufficient for successful operation of a large- scale facility or the Facility, and we may be required to expend significant time and money to develop our capabilities in large- scale 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, including our RNG facilities and the Facility. Integrating new facilities with our existing operations may prove difficult. Rapid growth, resulting from our operation of, or other involvement with, renewable hydrocarbon facilities or otherwise, may impose a significant burden on our administrative and operational resources. To effectively manage our growth and execute our expansion plans, we will need to expand our administrative and operational resources substantially and attract, train, manage and retain qualified management, technicians and other personnel. We may be unable to do so. Failure to meet the operational challenges of developing and managing increased production, or failure to otherwise manage our growth, may have a material adverse effect on our business, financial condition and results of operations. We expect that many of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. We lack significant commercial operating experience and may face difficulties in developing marketing expertise in these fields. Our business model relies upon our ability to successfully negotiate, structure and fulfill long- term offtake agreements for our products. Certain agreements with existing and potential customers may initially only provide for the purchase of limited quantities from us. Our ability to increase our sales will depend in large part upon our ability to expand these existing customer relationships into long- term offtake agreements. Maintaining and expanding our existing relationships and establishing new ones can require substantial investment without any assurance from customers that they will place significant orders. In addition, many of our potential customers may be more experienced in these matters than we are, and we may fail to successfully negotiate these agreements in a timely manner or on favorable terms which, in turn, may force us to slow our production, dedicate additional resources to increasing our storage capacity and / or dedicate resources to sales in spot markets. Furthermore, should we become more dependent on spot market sales, our profitability will become increasingly vulnerable to short- term fluctuations in the price and demand for petroleum- based fuels and competing substitutes. If appropriate opportunities become available, we may acquire businesses, assets,~~

~~technologies or products to enhance our business in the future. In connection with any future acquisitions, we could, subject to certain limitations in the agreements governing our indebtedness at such time: • issue additional equity securities which would dilute our current stockholders; • incur substantial debt to fund the acquisitions; or • assume significant known or unknown 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 the Luverne Facility, we have not engaged in acquisitions in the past, and do not have experience in managing the integration process. Therefore, we may not be able to successfully integrate any businesses, assets, products, technologies or personnel that we might acquire in the future without a significant expenditure of operating, financial and management resources, if at all. The integration process could divert management time from focusing on operating our business, result in a decline in employee morale and cause retention issues to arise from changes in compensation, reporting relationships, future prospects or the direction of the business. In addition, we may acquire companies that have insufficient internal financial controls, which could impair our ability to integrate the acquired company and adversely impact our financial reporting. If we fail in our integration efforts with respect to acquisitions and are unable to efficiently operate as a combined organization, our business, financial condition and results of operations may be materially adversely affected. If appropriate opportunities become available, we may enter into joint ventures with various parties. Realizing the anticipated benefits of joint ventures 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; • the inability to meet applicable performance targets; • difficulties obtaining the permits and approvals required to produce and sell products in different geographic areas; • complexities associated with managing the potential geographic separation of 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. Our business is complex and we intend to target a variety of markets. Therefore, it is critical that our management team and employee workforce are knowledgeable in the areas in which we operate. The departure, illness or absence of any key members of our management, including our named executive officers, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. In addition, the loss of any key scientific staff, or the failure to attract or retain other key scientific employees, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy. We may not be able to attract or retain qualified employees in the future due to the intense competition for qualified personnel among biotechnology and other technology- based businesses, particularly in the advanced renewable fuels area, or due to the limited availability of personnel with the qualifications or experience necessary for our renewable chemicals and advanced renewable fuels business. If we are not able to attract and retain the necessary personnel to accomplish our business objectives, we may experience staffing constraints that will adversely affect our ability to meet the demands of our partners and customers in a timely fashion or to support our internal research and development programs. In particular, our product and process development programs are dependent on our ability to attract and retain highly skilled scientists. Competition for experienced scientists and other technical personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms. All of our employees are at- will employees, meaning that either the employee or we may terminate their employment at any time. 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. We may face substantial competition in the markets for renewable hydrocarbon products. Our competitors include companies in the incumbent petroleum- based industry as well as those in the nascent renewable fuels 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. 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 renewable fuels 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. We are vulnerable to natural disasters and other events that could disrupt our operations, such as riots, civil disturbances, war, terrorist acts, pandemics, such as COVID- 19, floods, infections in our laboratory or production facilities or those of our contract manufacturers and other events beyond our control. We do not have a detailed disaster recovery plan. In addition, we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business. Our business is dependent on proprietary technologies, processes and information that we have developed, much of which is stored on our computer systems. We also have entered into agreements with third parties for hardware, software, telecommunications and other information technology (" IT ") services in connection with our operations. Our operations depend, in part, on how well we and our vendors protect networks, equipment, IT systems and software against damage from a number of threats, including, but not limited to, cable cuts, damage to physical plants, natural disasters, intentional damage and destruction, fire, power loss, hacking, computer viruses, vandalism, theft, malware, ransomware and phishing attacks. Any of these and other events could result in IT system failures, delays, a material disruption of our business or increases in capital expenses. Our operations also depend on the timely maintenance, upgrade and replacement of networks, equipment and IT systems and software, as well as preemptive expenses to mitigate the risks of failures. Furthermore, the importance of such information technology systems and networks and systems has increased due to many of our employees working remotely. Additionally, if one of our service providers were to fail and we were unable to find a suitable replacement in a timely manner, we could be unable to properly administer our outsourced functions. As cyber threats continue to evolve, we may be required to expend significant additional resources to continue to modify or enhance our protective measures or to investigate and remediate any information security vulnerabilities. While we have implemented security resources to protect our data security and information technology systems, such measures may not prevent such events. Significant disruption to our IT system or breaches of data security could have a material adverse effect on our business, financial condition and results of operations. In the future, we may engage in hedging transactions to offset some of the effects of volatility in commodity prices. 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 would expose us to the risk that we may have under- or over- estimated our need for a specific commodity or that the other party to a hedging contract may default on its obligation. If there are significant swings in commodity prices, or if we purchase more corn for future delivery than we can process, we may have to pay to terminate a futures contract, resell unneeded corn inventory at a loss or produce our products at a loss, all of which would have a material adverse effect on our financial performance. We may vary the hedging strategies we undertake, which could leave us more vulnerable to increases in commodity prices or decreases in the prices of our products. Future losses from hedging activities and changes in hedging strategy could have a material adverse effect on our operations. 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. The subjects of genetically engineered organisms and food versus fuel have received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically engineered products or feedstocks grown on land suitable for food production. The biocatalysts that we develop have significantly enhanced characteristics compared to those found in naturally occurring enzymes or microbes. While we produce our biocatalysts only for use in a controlled industrial environment, the release of such biocatalysts into uncontrolled environments could have unintended consequences. Any adverse effect resulting from such a release could have a material adverse effect on our business and financial condition, and we may be exposed to liability for any resulting harm. As our products have not previously been used as a commercial fuel in significant amounts, their use subjects us to product liability risks. SAF has not been used as a commercial fuel in large quantities or for a long period of time. Research~~

~~regarding SAF and its distribution infrastructure is ongoing. Although SAF has been tested on some engines, there is a risk that they may damage engines or otherwise fail to perform as expected. If these products degrade the performance or reduce the life-cycle of engines, or cause them to fail to meet emissions standards, market acceptance could be slowed or stopped, and we could be subject to product liability claims. A significant product liability lawsuit could substantially impair our production efforts and could have a material adverse effect on our business, reputation, financial condition and results of operations. We may not be able to use some or all of our net operating loss carry- forwards to offset future income. We have net operating loss carryforwards due to prior period losses generated before January 1, 2022, which if not utilized will begin to expire at various times over the next 20 years. If we are unable to generate sufficient taxable income to utilize our net operating loss carryforwards, these carryforwards could expire unused and be unavailable to offset future income tax liabilities. In addition, under Section 382 of the Internal Revenue Code of 1986, as amended (the " Code "), a corporation that undergoes an " ownership change " (generally defined as a greater than 50 % change (by value) in its equity ownership over a three- year period) is subject to limitation on its ability to utilize its pre- change net operating loss carry- forwards, or net operating losses, to offset future taxable income. We undertook a detailed study of our net operating loss carryforwards through December 31, 2022 to determine whether such amounts are likely to be limited by Section 382 of the Code. As a result of this analysis, we currently believe any Section 382 of the Code limitations will significantly impact our ability to offset income with available net operating loss carryforwards. We have experienced more than one ownership change in prior years, and the issuance of shares in connection with our initial public offering itself triggered an ownership change. In addition, future changes in our stock ownership, which may be outside of our control, may trigger an ownership change, as may future equity offerings or acquisitions that have equity as a component of the purchase price. We depend, in part, on international, federal, state and local government incentives, including but not limited to RINs, LCFS credits in California, Clean Fuel Program credits in Oregon, Renewable Energy Credits (" RECs "), rebates, tax credits and other incentives to end users, distributors, system integrators and manufacturers of renewable energy projects, that promote the use of renewable energy. These government economic incentives could be reduced or eliminated altogether, or the categories of renewable energy qualifying for such government economic incentives could be changed. These renewable energy program incentives are subject to regulatory oversight and could be administratively or legislatively changed in a manner that could have a material adverse effect on our operations. Reductions in, changes to, or eliminations or expirations of governmental incentives could result in decreased demand for, and lower revenues from, our projects and products. Further, our ability to generate revenue from the various government economic incentives depends on our strict compliance with the applicable federal and state programs, which are complex and can involve a significant degree of judgment. If the agencies that administer and enforce these programs disagree with our judgments, otherwise determine that we are not in compliance, conduct reviews of our activities or make changes to the programs, then our ability to generate revenue from the economic incentives could be temporarily restricted pending completion of reviews or as a penalty, permanently limited or lost entirely, and we could also be subject to fines or other sanctions. In addition, we may be required to register our projects or qualify our products with the federal government, various states or other countries. Delays in obtaining registration or qualification of our projects or products could delay future revenues and could adversely affect our cash flows. Further, we typically make a large investment in our projects prior to receiving registration and / or qualification. Failure of our projects or products to qualify for government economic incentives could have a material adverse effect on our business. Risks Related to Intellectual Property The various bioindustrial markets in which we operate or plan to operate are subject to frequent and extensive litigation regarding patents and other intellectual property rights. In addition, many companies in intellectual property- dependent industries, including the renewable energy industry, have employed intellectual property litigation as a means to gain an advantage over their competitors. As a result, we may be required to defend against claims of intellectual property infringement that may be asserted by our competitors against us and, if the outcome of any such litigation is adverse to us, it may affect our ability to compete effectively. Litigation, interferences, opposition proceedings or other intellectual property proceedings inside and outside of the U. S. may divert management time from focusing on business operations, could cause us to spend significant amounts of money and may have no guarantee of success. Any future intellectual property litigation could also force us to do one or more of the following: • stop selling, incorporating, manufacturing or using our products that use the subject intellectual property; • obtain from a third party asserting its intellectual property rights, a license to sell or use the relevant technology, which license may not be available on reasonable terms, or at all; • redesign those products or processes that use any allegedly infringing or misappropriated technology, which may result in significant cost or delay to us, or which redesign could be technically infeasible; • pay attorneys' fees and expenses; or • pay damages, including the possibility of treble damages in a patent case if a court finds us to have willfully infringed certain intellectual property rights. We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. We cannot assure you that we will ultimately prevail if any of this third- party intellectual property is asserted against us. Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U. S. and other countries. We have adopted a strategy of seeking patent protection in the U. S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. We own rights to hundreds of issued patents and filed patent applications in the U. S. and in various foreign jurisdictions. When and if issued, patents would expire at the end of their term and any patent would only provide us commercial advantage for a limited period of time, if at all. Our patent applications are directed to our enabling technologies and to our methods and products which support our business in the advanced renewable fuels and renewable chemicals markets. We intend to continue to apply for patents relating to our technologies, methods and products as we deem appropriate. Only some of the patent applications that we have filed in the U. S. or in any foreign jurisdictions, and only certain of the patent applications filed by third parties in which we own rights, have been issued. A filed patent application does not guarantee a patent will issue and a patent issuing does not guarantee its validity, nor does it give us~~

~~the right to practice the patented technology or commercialize the patented product. Third parties may have or obtain rights to " blocking patents " that could be used to prevent us from commercializing our products or practicing our technology. The scope and validity of patents and success in prosecuting patent applications involve complex legal and factual questions and, therefore, issuance, coverage and validity cannot be predicted with any certainty. Patents issuing from our filed applications may be challenged, invalidated or circumvented. Moreover, third parties could practice our inventions in secret and in territories where we do not have patent protection. Such third parties may then try to sell or import products made using our inventions in and into the U. S. or other territories and we may be unable to prove that such products were made using our inventions. Additional uncertainty may result from implementation of the Leahy- Smith America Invents Act, enacted in September 2011, as well as other potential patent reform legislation passed by the U. S. Congress and from legal precedent handed down by the Federal Circuit Court and the U. S. Supreme Court, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the U. S. and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to the validity of any patents that may issue and the potential for " blocking patents " coming into force at some future date. Accordingly, we cannot ensure that any of our currently filed or future patent applications will result in issued patents, or even if issued, predict the scope of the claims that may issue in our and other companies' patents. Any proceedings challenging our patents may result in the claims being amended or canceled. If the claims are amended or canceled, the scope of our patent claims may be narrowed, which may reduce the scope of protection afforded by our patent portfolio. Given that the degree of future protection for our proprietary rights is uncertain, we cannot ensure that (i) we were the first to make the inventions covered by each of our filed applications, (ii) we were the first to file patent applications for these inventions, (iii) the proprietary technologies we develop will be patentable, (iv) any patents issued will be broad enough in scope to provide commercial advantage and prevent circumvention, and (v) competitors and other parties do not have or will not obtain patent protection that will block our development and commercialization activities. These concerns apply equally to patents we have licensed, which may likewise be challenged, invalidated or circumvented, and the licensed technologies may be obstructed from commercialization by competitors' " blocking patents. " In addition, we generally do not control the patent prosecution and maintenance of subject matter that we license from others. Generally, the licensors are primarily or wholly responsible for the patent prosecution and maintenance activities pertaining to the patent applications and patents we license, while we may only be afforded opportunities to comment on such activities. Accordingly, we are unable to exercise the same degree of control over licensed intellectual property as we exercise over our own intellectual property and we face the risk that our licensors will not prosecute or maintain it as effectively as we would like. In addition, unauthorized parties may attempt to copy or otherwise obtain and use our products or technology. Monitoring unauthorized use of our intellectual property is difficult, particularly where, as here, the end products reaching the market generally do not reveal the processes used in their manufacture, and particularly in certain foreign countries where the local laws may not protect our proprietary rights as fully as in the U. S., so we cannot be certain that the steps we have taken in obtaining intellectual property and other proprietary rights will prevent unauthorized use of our technology. If competitors are able to use our technology without our authorization, our ability to compete effectively could be adversely affected. Moreover, competitors and other parties such as universities may independently develop and obtain patents for technologies that are similar to or superior to our technologies. If that happens, the potential competitive advantages provided by our intellectual property may be adversely affected. We may then need to license these competing technologies, and we may not be able to obtain licenses on reasonable terms, if at all, which could cause material harm to our business. Accordingly, litigation may be necessary for us to assert claims of infringement, enforce patents we own or license, protect trade secrets or determine the enforceability, scope and validity of the intellectual property rights of others. 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 be issued to third parties that could block our ability to obtain patents or to operate our business as we would like, or at all. There may be patents in some countries that, if valid, may block our ability to commercialize products in those countries if we are unsuccessful in circumventing or acquiring rights to these patents. There may also be claims in patent applications filed in some countries that, if granted and valid, may also block our ability to commercialize products or processes in these countries if we are unable to circumvent or license them. As is commonplace in the biotechnology industries, some of our directors, employees and consultants are or have been employed at, or associated with, companies and universities that compete with us or have or will develop similar technologies and related intellectual property. While employed at these companies, these employees, directors and consultants may have been exposed to or involved in research and technology similar to the areas of research and technology in which we are engaged. Though we have not received such a complaint, we may be subject to allegations that we, our directors, employees or consultants have inadvertently or otherwise used, misappropriated or disclosed alleged trade secrets or confidential or proprietary information of those companies. Litigation may be necessary to defend against such allegations and the outcome of any such litigation would be uncertain. Under some of our research agreements, our partners share joint rights in certain intellectual property we develop. Such provisions may limit our ability to gain commercial benefit from some of the intellectual property we develop and may lead to costly or time-consuming disputes with parties with whom we have commercial relationships over rights to certain innovations. If any other party has filed patent applications or obtained patents that claim inventions also claimed by us, we may have to participate in interference, derivation or other proceedings declared by the USPTO to determine priority of invention and, thus, the right to the patents for these inventions in the U. S. These proceedings could result in substantial cost to us even if the outcome is favorable. Even if successful, such a proceeding may result in the loss of certain claims. Even successful outcomes of such proceedings could result in significant legal fees and other expenses, diversion of management time and efforts and disruption in our business. Uncertainties resulting from initiation and continuation of any patent or related litigation could harm our ability to~~

~~compete. 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. The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U. S. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions, and, particularly with any future international partners, we may face new and increased risks and challenges in protecting and enforcing our intellectual property rights abroad. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bioindustrial technologies. This could make it difficult for us to stop the infringement of our patents or misappropriation of our other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Accordingly, our efforts to enforce our intellectual property rights in such countries may be inadequate to obtain a significant commercial advantage from the intellectual property that we develop. We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual' s relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that know-how and inventions conceived by the individual in the course of rendering services to us shall be our exclusive property. Nevertheless, these agreements may not be enforceable, our proprietary information may be disclosed, third parties could reverse engineer our biocatalysts and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time- consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position. In addition, an unauthorized breach in our information technology systems may expose our trade secrets and other proprietary information to unauthorized parties. We have received funding from U. S. government agencies, which could negatively affect our intellectual property rights. Some of our research has been funded by grants from U. S. government agencies. When new technologies are developed with U. S. government funding, the government obtains certain rights in any resulting patents and technical data, generally including, at a minimum, a nonexclusive license authorizing the government to use the invention or technical data for noncommercial purposes. U. S. government funding must be disclosed in any resulting patent applications, and our rights in such inventions will normally be subject to government license rights, periodic progress reporting, foreign manufacturing restrictions and march- in rights. March- in rights refer to the right of the U. S. government, under certain limited circumstances, to require us to grant a license to technology developed under a government grant to a responsible applicant or, if we refuse, to grant such a license itself. March- in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements of federal regulations or to give preference to U. S. industry. If we breach the terms of our grants, the government may gain rights to the intellectual property developed in our related research. The government' s rights in our intellectual property may lessen its commercial value, which could adversely affect our performance. Risks Related to Legal and Regulatory The EPA has implemented the RFS Program pursuant to the Energy Policy Act of 2005 (the " Energy Policy Act ") and the Energy Independence and Security Act of 2007. The RFS Program sets annual quotas for the quantity of renewable fuels that must be blended into motor fuels consumed in the U. S. The domestic market for renewable fuels is significantly impacted by federal mandates under the RFS Program for volumes of renewable fuels required to be blended with gasoline. Future demand for renewable fuels will be largely dependent upon incentives to blend renewable fuels into motor fuels, including the price of renewable fuels relative to the price of gasoline, the relative octane value of the renewable fuel, constraints in the ability of vehicles to use higher renewable fuel blends, the RFS Program and other applicable environmental requirements. Any significant increase in production capacity above the RFS Program minimum requirements may have an adverse impact on renewable fuel prices. Any change in government policies regarding the RFS Program could have a material adverse effect on our business and the results of our operations. Waivers of the RFS minimum levels of renewable fuels included in motor fuels or of the requirements by obligated parties to comply with the regulations could have a material adverse effect on our results of operations. Under the Energy Policy Act, the U. S. Department of Energy, in consultation with the Secretary of Agriculture and the Secretary of Energy, may waive the renewable fuels mandate with respect to one or more states if the Administrator of the EPA determines that implementing the requirements would severely harm the economy or the environment of a state, a region or the nation, or that there is inadequate supply to meet the requirement. Additionally, the EPA has exercised the authority to waive the requirements of the RFS minimum levels for certain small refiners. Any waiver of the RFS minimum levels with respect to one or more states would reduce demand for renewable fuels and could cause our results of operations to decline and our financial condition to suffer. Further activity by the EPA to waive the requirements for small refiners could cause softening of pricing in the industry and cause our results of operations to similarly decline. A critical state program is California' s LCFS program, which is designed to reduce GHG emissions associated with transportation fuels used in California by ensuring that the fuel sold in California meets declining targets for such emissions. The regulation quantifies life- cycle GHG emissions by assigning a CI score to each transportation fuel based on that fuel' s life- cycle assessment. Each petroleum fuel provider, generally the fuel' s producer or importer (the " Regulated Party "), is required to ensure that the overall CI score for its fuel pool meets the annual CI target for a given year. A Regulated~~

~~Party’ s fuel pool can include gasoline, diesel and their blend stocks and substitutes. This obligation is tracked through credits and deficits. Fuels with a CI score lower than the annual standard earn a credit, and fuels that are higher than the standard result in a deficit. Several other states also have or are considering adopting this model. Oregon’ s Clean Fuels Program, enacted in 2009 and implemented in 2016, operates using a credit system similar to the California LCFS program. Any changes to California’ s LCFS program or failure of other states to implement similar programs could have a material adverse effect on our business and the results of our operations. The market for renewable fuels is heavily influenced by foreign, federal, state and local government laws, regulations and policies. Changes in these laws, regulations and policies or how these laws, regulations and policies are implemented and enforced could cause the demand for renewable fuels to decline and deter investment in the research and development of renewable fuels. Concerns associated with renewable fuels, including land usage, national security interests and food crop usage, continue to receive legislative, industry and public attention. This attention could result in future legislation, regulation and / or administrative action that could adversely affect our business. Any inability to address these requirements and any regulatory or policy changes could have a material adverse effect on our business, financial condition and results of operations. Additionally, our renewable hydrocarbon plants may emit GHG. 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 renewable hydrocarbon products and increase our operating costs, which could have a material adverse effect on our business, financial condition and results of operations. The results of U. S. elections could lead to changes in federal or state laws and regulations that could have a material adverse effect on our business, prospects, financial condition and results of operations. Parties with an interest in other energy sources, including lawmakers, regulators, policymakers, environmental and advocacy organizations or other activists may invest significant time and money in efforts to delay, repeal or otherwise negatively influence regulations and programs that promote renewable energy. Many of these parties have substantially greater resources and influence than we have. Further, changes in U. S. federal, state or local political, social or economic conditions, including a lack of legislative focus on these programs and regulations, could result in their modification, delayed adoption or repeal. Any failure to adopt, delay in implementing, expiration, repeal or modification of these programs and regulations, or the adoption of any programs or regulations that encourage the use of other energy sources over renewable energy, could adversely affect our business, financial condition 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. In the course of our relationships with international partners, we may become subject to certain foreign tax, environmental and health and safety regulations that did not previously apply to us or our products. Such regulations may be unclear, not consistently applied and subject to sudden change. Implementation of compliance policies could result in additional operating costs, and our failure to comply with such laws, even inadvertently, could result in significant fines and / or penalties. Additionally, the Foreign Corrupt Practices Act and other anti- corruption laws and regulations (“ Anti- Corruption Laws ”) prohibit corrupt payments by our employees, vendors or agents. Even with implementation of policies, training and internal controls designed to reduce the risk of corrupt payments, our employees, vendors or agents may violate our policies. Our international partnerships may significantly increase our exposure to potential liability. Our failure to comply with Anti- Corruption Laws could result in significant fines and penalties, criminal sanctions against us, our officers or our employees, prohibitions on the conduct of our business, and damage to our reputation. Risks Related to Owning Our Securities We cannot predict the size of future issuances or sales of shares of our common stock in connection with future acquisitions or capital raising activities, or the effect, if any, that such issuances or sales may have on the market price of our common stock. The issuance and sale of substantial amounts of shares of our common stock, or the announcement that such issuances and sales may occur, could adversely affect the market price of our common stock. Historically, we have raised capital by issuing common stock and warrants in public offerings because no other reasonable sources of capital were available. These public offerings of common stock and warrants have materially and adversely affected the prevailing market prices of our common stock and caused significant dilution to our stockholders. We have also historically raised capital or refinanced outstanding debt through the issuance of convertible notes. We may need to raise capital through these public offerings of common stock, warrants and convertible debt in the future. We may obtain additional funds through public or private debt or equity financings, subject to certain limitations in the agreements governing our indebtedness. If we issue additional shares of common stock or instruments convertible into common stock, it may materially and adversely affect the price of our common stock. Raising capital at a subsidiary, or project, level would result in lower revenues attributable back to us. We operate in a capital- intensive business and in order to construct our facilities, we need to raise large amounts of capital. In order to finance the construction of NZ1 and any other Net- Zero Projects, we currently expect to raise capital at the subsidiary level using third party capital. By raising capital at a project level, any equity in that project that is sold to a third party would result in lower ownership of that project by us. Thus, we would only be entitled to the revenues and expenses that are proportionate to our level of ownership in~~

~~the project. If we are required to sell a large portion of the equity in our projects to third parties, it may have a material adverse effect on our business, financial condition and operating results. The market price of shares of our common stock has experienced significant price and volume fluctuations. We cannot predict whether the price of our common stock will rise or fall. A variety of factors may have a significant effect on our stock price, including: • actual or anticipated fluctuations in our liquidity, financial condition and operating results; • the position of our cash and cash equivalents; • the capital costs required to construct our Net- Zero Projects; • our ability to obtain certain regulatory permits or approvals for our production facilities, including our Net- Zero Projects; • actual or anticipated changes in our growth rate relative to our competitors; • actual or anticipated fluctuations in our competitors' operating results or changes in their growth rate; • announcements of technological innovations by us, our partners or our competitors; • announcements by us, our partners or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments; • the entry into, modification or termination of licensing arrangements, marketing arrangements, and / or research, development, commercialization, supply, off- take or distribution arrangements; • our ability to consistently produce commercial quantities of our products; • additions or losses of customers or partners; • our ability to obtain certain regulatory approvals for the use of our products in various fuels and chemicals markets; • commodity prices, including oil, ethanol and corn prices; • additions or departures of key management or scientific personnel; • competition from existing products or new products that may emerge; • issuance of new or updated research reports by securities or industry analysts; • fluctuations in the valuation of companies perceived by investors to be comparable to us; • litigation involving us, our general industry or both; • disputes or other developments related to proprietary rights, including patents, litigation matters and our ability to obtain patent protection for our technologies; • announcements or expectations of additional financing efforts or the pursuit of strategic alternatives; • changes in existing laws, regulations and policies applicable to our business and products, and the adoption of or failure to adopt carbon emissions regulation; • sales of our common stock or equity- linked securities, such as warrants, by us or our stockholders; • share price and volume fluctuations attributable to inconsistent trading volume levels of our shares; • general market conditions in our industry; and • general economic and market conditions, including as a result of the COVID- 19 pandemic. Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock, regardless of our operating performance, and cause the value of your investment to decline. Additionally, in the past, companies that have experienced volatility in the market price of their stock have been subject to securities class action litigation or other derivative shareholder lawsuits. We may be the target of this type of litigation in the future. Securities litigation against us could result in substantial costs and divert our management' s attention from other business concerns, which could seriously harm our business regardless of the outcome. The price of our common stock could also be affected by possible sales of common stock by investors who view our warrants as a more attractive means of equity participation in us and by hedging or engaging in arbitrage activity involving our common stock. The hedging or arbitrage could, in turn, affect the trading prices of our warrants, if any trading market becomes established, or any common stock that holders receive upon exercise of such warrants. Sales of a substantial number of shares of our common stock or securities linked to our common stock, such as our warrants (should an established market for such securities then exist), in the public market could occur at any time. These sales, or the perception in the market that such sales may occur, could reduce the market price of our common stock. In addition, certain holders of our outstanding common stock have rights, subject to certain conditions, to require us to file registration statements covering their shares and to include their shares in registration statements that we may file for ourselves or other stockholders. Our financial projections, including any projected investment returns on projects, sales or earnings guidance or outlook that we may provide from time to time, are dependent on estimates and assumptions related to, among other things, industry growth, product and plant development, estimated capital expenses for growth development projects, market share projections, product pricing and sale, customer interest in our products, availability of government incentives, tax rates, accruals for estimated liabilities, and our ability to raise sufficient funds or generate sufficient cash flow to continue operations and / or expand our production capabilities. Our financial projections are based on historical experience and on various other estimates and assumptions that we believe to be reasonable under the circumstances and at the time they are made, and our actual results may differ materially from our financial projections. 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, the ownership interest of our existing shareholders will be diluted, and the terms of such securities may include liquidation or other preferences that adversely affect your rights as a stockholder. If we raise capital through debt financing, it may involve agreements that include covenants further limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships or licensing agreements with third parties, we may have to relinquish valuable rights to our technologies or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds when needed, we may be required to delay, limit, reduce or terminate our development and commercialization efforts. We have never paid cash dividends on our common stock and we do not expect to pay cash dividends on our common stock at any time in the foreseeable future. The future payment of dividends directly depends upon our future earnings, capital requirements, financial requirements and other factors that our board of directors will consider. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock. If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline. The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish~~

~~about us or our business. We do not have any control over securities or industry analysts. If one or more of the analysts who cover us downgrade our common stock or change their opinion of our common stock, our common stock price would likely decline which in turn would likely cause a decline in the value of our warrants. If one or more of these analysts cease coverage of us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which could cause our common stock price and the price of our warrants to decline or the trading volume of our common stock to decline. Provisions in our certificate of incorporation and our bylaws may delay or prevent an acquisition of the Company. Among other things, our certificate of incorporation and bylaws provide for a board of directors that is divided into three classes with staggered three-year terms, provide that all stockholder action must be effected at a duly called meeting of the stockholders and not by a consent in writing, and further provide that only our board of directors may call a special meeting of the stockholders. These provisions may also frustrate or prevent any attempts by our stockholders to replace or remove our current management by making it more difficult for stockholders to replace members of our board of directors, who are responsible for appointing the members of our management team. Furthermore, because we are incorporated in Delaware, we are governed by the provisions of Section 203 of the Delaware General Corporation Law (the " DGCL "), which prohibits, with some exceptions, stockholders owning in excess of 15 % of our outstanding voting stock from merging or combining with us. Finally, our charter documents establish advance notice requirements for nominations for election to our board of directors and for proposing matters that can be acted upon at stockholder meetings. Although we believe these provisions together provide an opportunity to receive higher bids by requiring potential acquirers to negotiate with our board of directors, they would apply even if an offer to acquire the Company may be considered beneficial by some stockholders. Our certificate of incorporation provides that the Court of Chancery of the State of Delaware shall, unless we consent in writing to the selection of an alternative forum, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of the Company to the Company or its stockholders, (iii) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (iv) any action asserting a claim governed by the internal affairs doctrine, in each case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. The exclusive forum provision may limit a stockholder' s ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers, employees or agents, which may discourage such lawsuits against us and our directors, officers, employees and agents. Stockholders who do bring a claim in the Court of Chancery could face additional litigation costs in pursuing any such claim, particularly if they do not reside in or near the State of Delaware. The Court of Chancery may also reach different judgments or results than would other courts, including courts where a stockholder considering an action may be located or would otherwise choose to bring the action, and such judgments or results may be more favorable to us than to our stockholders. Alternatively, if a court were to find the choice of forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition. Notwithstanding the foregoing, the exclusive forum provision shall not preclude or contract the scope of exclusive federal or concurrent jurisdiction for actions brought under the Exchange Act or the Securities Act, or the respective rules and regulations promulgated thereunder. Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to these provisions. This exclusive forum provision may limit a stockholder' s ability to bring a claim in a judicial forum of its choosing for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find the exclusive forum provision contained in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could harm our business, results of operations and financial condition. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management and other employees. Item 1B. Unresolved Staff Comments None. Item 3. Legal Proceedings From time to time, we have been and may again become involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any litigation that we believe to be material and we are not aware of any pending or threatened litigation against us that we believe could have a material adverse effect on our business, operating results, financial condition or cash flows. Item 4. Mine Safety Disclosures Not Applicable. PART II Item~~ 5 ~~. Market for Registrant' s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities Market for Common Stock Market Information The Company' s common stock is listed and traded on the Nasdaq Capital Market under the symbol" GEVO". Holders of Record As of January 31, 2023, there were approximately 33 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. Any future determination to declare cash dividends on our common stock will be made at the discretion of our Board of Directors, subject to compliance and limitations under our debt arrangements in effect at such time. Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities Purchases of Equity Securities by the Issuer Performance Graph The following information is not deemed to be " soliciting material " or to be " filed " with the SEC or subject to Regulation 14A or 14C under the Exchange Act or to the liabilities of Section 18 of the Exchange Act, and will not be deemed to be incorporated by reference into any filing of the Company under the Securities Act of 1933, as amended (the" Securities Act"), or the Exchange Act, except to the extent the Company specifically incorporates it by reference into such a filing. The following line graph compares the cumulative total shareowner return on our common stock against the cumulative total return of the S & P Smallcap 600 Index and the NASDAQ Clean Edge Green Energy Index for the each of the five years ended December 31, 2022. The graph assumes a $ 100 investment in our common stock and each index at December 31, 2017. COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN Among Gevo, Inc., The S & P Smallcap 600 Index December 31, 2017December 31, 2018December 31, 2019December 31,~~

~~2020December 31, 2021December 31, 2022 Gevo, Inc. $ 100. 00 $ 16. 60 $ 19. 57 $ 36. 00 $ 36. 25 $ 16. 09 S & P Smallcap 600100. 00 91. 52 112. 37 125. 05 158. 59 133. 06 NASDAQ Clean Edge Green Energy100. 00 87. 89 125. 39 357. 14 347. 70 242. 88 The information in the graph will not be considered solicitation material, nor will it be filed with the SEC or incorporated by reference into any future filing under the Securities Act or the Exchange Act, unless we specifically incorporate it by reference into our filing. Item 6. [Reserved] 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 audited financial statements and related notes appearing elsewhere in this Annual Report on Form 10- K (this " Annual Report "). Some of the information contained in this discussion and analysis and set forth elsewhere in this Annual Report, including information with respect to our plans and strategy for our business, includes forward- looking statements that involve risks and uncertainties. You should review the section titled " Risk Factors " in Part I, Item 1A of this Annual Report for a discussion of important factors that could cause actual results to differ materially from the results described in or implied by the forward- looking statements contained in the following discussion and analysis. We are a growth- oriented company with the mission of solving greenhouse gas emissions for those sectors of the transportation industry that are not amenable to electrification or hydrogen. We believe that the market size for hydrocarbon fuels will continue to remain significant in the long- term even with the rapid adoption of electric vehicles and hydrogen technologies. We also believe that we can achieve at least 1 billion gallons of hydrocarbon production and sales by 2030. We are focused on transforming renewable energy into energy- dense liquid hydrocarbons that can be used as renewable fuels, such as sustainable aviation fuel (" SAF"), with the potential to achieve a " net- zero " greenhouse gas (" GHG") footprint. We believe that this addresses the global need of reducing GHG emissions with" drop in" sustainable alternatives to petroleum fuels. We use the Argonne National Laboratory' s Greenhouse gases, Regulated Emissions, and Energy use in Transportation model (the" GREET Model") to measure, predict and verify GHG emissions across the life- cycle of our products. The " net- zero " concept means Gevo expects that by using sustainably grown feedstock (i. e., low till, no- till and dry corn cultivation), renewable and substantially decarbonized energy sources, drop- in hydrocarbon fuels can be produced that have a net- zero, full life cycle footprint measured from the capture of renewable carbon through the burning of the fuel. Our primary market focus, given current demand and growing customer interest, is SAF. We believe we also have commercial opportunities for other renewable hydrocarbon products, such as renewable natural gas (" RNG"); hydrocarbons for gasoline blendstocks and diesel fuel; ingredients for the chemical industry, such as ethylene and butenes; plastics and materials; and other chemicals. The global fuel consumption by commercial airlines was an all- time high of 95 billion gallons in 2019. However, due to the COVID- 19 pandemic, fuel consumption dropped to 52 billion gallons in 2020 and then reached 57 billion gallons in 2021, and throughout 2022 continued to trend back to pre- COVID levels. Project Updates Net- Zero Projects. In early 2021, we announced the concept of" Net- Zero Projects" as a series of planned facilities to produce energy dense liquid hydrocarbons using renewable energy and our proprietary technology. Our initial Net- Zero Project, Net- Zero 1 (" NZ1"), is located in Lake Preston, South Dakota, and is being currently designed to produce approximately 62 million gallons per year (" MGPY") of total hydrocarbon volumes, including 55 MGPY of SAF, which would fulfill part of our more than 375 MGPY of SAF and hydrocarbon supply agreements. The liquid hydrocarbons when burned are expected to have a " net- zero " GHG footprint. Along with the hydrocarbons, NZ1 is expected to produce approximately 475 million pounds per year of high- value protein products for use in the food chain and more than 30 million pounds per year of corn oil. Our products will be produced in three steps: the first step is milling the corn and the production of protein, oil, and carbohydrates; the second step produces alcohols using fermentation; and the third step is the conversion of the alcohols into hydrocarbons. We have an exclusive license in the U. S. from Axens North America, Inc. (" Axens") to the technology and plant designs to convert alcohols to hydrocarbon fuels. Axens will also provide certain process guarantees for our production process. Additionally, Axens has extensive commercial experience in the technology, design, and deployment of the unit operations needed to convert alcohols to hydrocarbon fuels, based on their experience in the petrochemical industry. The fermentation side of the facility is being engineered with Fluid Quip Technologies who has extensive experience in fermentation and agriculture- based facilities. We believe that by using known commercial technologies, the plant design is substantially de- risked. In July 2022, we completed the purchase of the land for NZ1 in Lake Preston, South Dakota, which was followed by a groundbreaking ceremony in September 2022. We believe production from NZ1 is on schedule with initial volumes of SAF expected to be delivered in 2025. Water and wind energy development agreements were executed in the third quarter of 2022, and other key milestones are on track for completion in accordance with our comprehensive project plan. Based on the ongoing engineering work, the installed cost for NZ1 is currently forecasted to be approximately $ 850 million, excluding certain contingencies and financing costs. We currently expect to finance the construction of NZ1 at the subsidiary level using third party capital. The Company expects to retain a carried equity interest in the project, and may invest equity in the project using the proceeds from the reimbursement of the Company' s NZ1 development expenditures. Cash distributions from future NZ1 earnings would be proportionate to Gevo' s minority ownership in NZ1 under this expected financing structure which would allow us to conserve and redeploy our capital on other growth projects, including our Net- Zero 2 project (" NZ2"). We currently expect to apply similar development and financing approaches to NZ2 and future Net- Zero Projects to enable rapid growth of SAF production to meet current contractual demand for SAF. Gevo is in the process of identifying and performing early site development work for NZ2 and additional SAF production locations. These sites include several greenfield locations that are particularly advantageous in terms of potential economies, opportunities to decarbonize, and time to market. In addition, we are pursuing prospects with several existing ethanol plant sites. Existing ethanol plants need to be decarbonized with renewable energy or de- fossilized energy and / or carbon sequestration. Gevo has developed a preferred list of partners and sites with decarbonization in mind and is engaged in preliminary feasibility and development discussions with several of them. We plan to give priority to existing industrial plant sites that have attractive potential economies and high predictability of timeline for decarbonization. Renewable Natural Gas~~

~~Project. Gevo' s revenue from the RNG project in Northwest Iowa (the" RNG Project") is expected to come from sales of RNG and from the environmental attributes associated with its RNG sales, including the attributes available from California' s Low Carbon Fuel Standard (" LCFS") program and the U. S. Environmental Protection Agency (" EPA") Renewable Fuels Standard (" RFS") program to receive renewable identification numbers (" RINs"). Gevo has been granted registration approval by the EPA in 2022, allowing us to participate in its RFS program and expects to receive approval for LCFS during 2023. Luverne Facility. In the third quarter of 2022, we recorded an impairment of long- lived assets, to reduce the carrying value of certain property, plant, and equipment, and a leased right of use (" ROU") asset, at our development scale plant in Luverne, Minnesota (the" Luverne Facility") to its fair value. The impairments recorded to date relate to the determination to suspend production at the Luverne Facility and shift the plant into a development scale property, which was transitioned to care and maintenance status. See Note 4 to the Consolidated Financial Statements for additional information. U. S. Department of Agriculture. In September 2022, the U. S. Department of Agriculture tentatively selected Gevo' s Climate- Smart Farm to Flight proposal for funding with an award ceiling of up to $ 30 million, subject to negotiation of definitive award agreements in the coming months. The project aims to create critical structural climate- smart market incentives for low carbon- intensity corn as well as to accelerate the production of sustainable aviation fuel to reduce the sector' s dependency on fossil- based fuels. Key Operating Metrics Total operating revenues reflect both sales of RNG and sales of related environmental attributes. As a result, our revenues are primarily affected by unit production of RNG, production of environmental attributes, and the prices at which we monetize such production. The following table summarizes the key operating metrics described above, which metrics we use to measure performance: Year Ended December 31, (in thousands, unless otherwise indicated) 2022RNG RevenuesNatural Gas Commodity $ 640 Natural Gas Environmental Attributes- RINs214 Natural Gas Environmental Attributes- LCFS — RNG Total Revenues $ 854 RNG MetricsRNG production volumes (MMBtu) 125 Plus: Prior period RNG volumes dispensed in current period — Less: RNG production volumes not dispensed (116) Total RNG volumes available for RIN and LCFS generation (1) 9 RIN MetricsRIN generation (x 11. 727) (2) 101 Less: Counterparty share (RINs) — Plus: Prior period RINs — Less: RINs carried into next period — Total RINs available for sale101 Less: RINs sold (101) RIN Inventory — RNG Inventory (volumes not dispensed for RINs) (3) 116 Average Realized RIN price ($) $ 2. 12 LCFS Metrics (4) RNG Inventory, volumes not dispensed for LCFS (5) 125 Operating ExpensesRNG Operating Expenses $ 7, 121 RNG Operating Expenses per MMBtu (actual) $ 57. 19 (1) RINs are generated in the month the gas is dispensed, which generally occurs the month after the gas is produced. (2) One MMBtu of RNG has approximately the same energy content as 11. 727 gallons of ethanol, and thus may generate 11. 727 RINs under the RFS program. (3) Represents gas production which has not been dispensed to generate RINs and LCFS. (4) No LCFS credits were generated during 2022 pending regulatory approval. (5) LCFS credits are generated in the month the gas is dispensed, which generally occurs the quarter after the gas is produced. The COVID- 19 pandemic had an adverse impact on global commercial activity, including the global transportation industry and its supply chain, and has contributed to significant volatility in financial markets. It resulted in travel restrictions and extended shutdowns of businesses in various industries including, among others, the airline industry, and significantly reduced overall economic output. It is possible that that the impact of the ongoing COVID- 19 pandemic on general economic activity could negatively impact the Company' s revenue and operating results in the future, particularly as new variants of COVID- 19 are discovered. The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the notes to those Consolidated Financial Statements appearing in this Annual Report. This discussion contains forward- looking statements that involve significant risks and uncertainties. As a result of many factors, such as those set forth under " Risk Factors " in Part I, Item 1A of this Annual Report, our actual results may differ materially from those anticipated in these forward- looking statements. This section of this Report discusses year- to- year comparisons between 2022 and 2021. The complete Management' s Discussion and Analysis of Financial Condition and Results of Operations for year- to- year comparisons between 2021 and 2020 and other discussions of 2020 items can be found within Part II, Item 7, of our Annual Report on Form 10- K for the year ended December 31, 2021, filed with the SEC on February 24, 2022, which is available free of charge on the SEC' s website at www. sec. gov and our corporate website at www. gevo. com. Comparison of the Years Ended December 31, 2022 and 2021 (in thousands) Year Ended December 31, 20222021Change ($) Change (%) Total operating revenues $ 1, 175 $ 533 $ 642 120 % Operating expenses: Cost of production8, 698 7, 687 1, 011 13 % Depreciation and amortization7, 887 5, 128 2, 759 54 % Research and development expense7, 427 6, 775 652 10 % General and administrative expense39, 941 25, 493 14, 448 57 % Project development costs10, 061 10, 581 (520) (5) % Facility idling costs4, 599 — 4, 599 100 % Impairment loss24, 749 — 24, 749 100 % Loss on disposal of assets499 5, 137 (4, 638) (90) % Total operating expenses103, 861 60, 801 43, 060 71 % Loss from operations (102, 686) (60, 268) (42, 418) 70 % Other income (expense) Interest expense (1, 167) (251) (916) 365 % Investment income (loss) 3, 043 571 2, 472 433 % Gain on forgiveness of SBA loan — 641 (641) (100) % Other income, net2, 803 104 2, 699 2, 595 % Total other income, net4, 679 1, 065 3, 614 339 % Net loss $ (98, 007) $ (59, 203) $ (38, 804) 66 % Operating revenue. In the second half of 2022, our RNG production began ramping up resulting in natural gas commodity sales of $ 0. 6 million and environmental attribute sales of $ 0. 2 million, while the activities at our Luverne Facility were minimized to care and maintenance status as we have shifted focus to our Net- Zero Projects. During the year ended December 31, 2022, compared to the year ended December 31, 2021, revenue increased $ 0. 6 million primarily due to the RNG sales. Cost of production. Cost of production increased $ 1. 0 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to the costs related to RNG production and sales. Depreciation and amortization. Depreciation and amortization increased $ 2. 8 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to additional depreciation for RNG assets placed into service and accelerated depreciation on Agri- Energy segment assets due to shorter lives stemming from the impairment assessment during the third quarter of 2022. See Note 4 to the Consolidated Financial Statements for additional information. Research and development expense. Research and development expense increased $ 0. 7 million during the year ended~~

~~December 31, 2022, compared to the year ended December 31, 2021, primarily due to an increase in patent and personnel related costs, as well as lab supplies, partially offset by a reduction of consulting expenses. General and administrative expense. General and administrative expense increased $ 14. 4 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to increases in personnel costs related to strategic hiring and professional fees started in late 2021 and having a full impact on 2022, as well as non- cash stock- based compensation which reflects higher amortization expense for the stock awards issued in the prior period with higher market value. See Note 16 to the Consolidated Financial Statements for additional information. Project development costs. Project development costs in 2022 consisted of employee expense, preliminary engineering and technical consulting costs related to our future Net- Zero Projects and Verity Tracking project, as well as other costs related to engineering personnel and non- capitalizable items. We began to capitalize a majority of the RNG and NZ1 projects' costs in 2021 which resulted in a $ 0. 5 million decrease during the year ended December 31, 2022, compared to the year ended December 31, 2021. Facility idling costs. Facility idling costs were $ 4. 6 million for the year ended December 31, 2022 and related to care and maintenance of our Luverne Facility. Included in facility idling costs are ongoing care and maintenance expenses, as well as one time charges related to removing flammable and other hazardous items from the site, writing off certain patents, and reduction in the workforce. We plan to utilize the Luverne Facility as a development scale plant to advance our technology and operational knowledge to help us in achieving operational success as we scale up the production and delivery of SAF for our customers through our Net- Zero Projects. Impairment loss. The Company recorded a $ 24. 7 million impairment loss on long- lived assets, which reduced the carrying value of certain property, plant, and equipment, and a leased ROU asset, at the Agri- Energy segment to its fair value. The impairments recorded to date relate to the determination to suspend production at the Luverne Facility and shift the plant into an idled, care and maintenance status during the third quarter of 2022. The impact of the one- time impairment charge of $ 24. 7 million was $ 0. 11 of basic and diluted impairment loss per share for the year ended December 31, 2022. See Note 4 to the Consolidated Financial Statements for additional information. Loss on disposal of assets. As a result of suspending the production of ethanol at the Luverne Facility, we wrote- off $ 0. 5 million of costs during the year ended December 31, 2022 related to ancillary equipment and spare parts that are no longer expected to be utilized at the Luverne Facility. The equipment and spare parts had been planned to be used in ethanol production. Loss from operations. The Company' s loss from operations increased by $ 42. 4 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to the increased activities for our Net- Zero Projects and Verity Tracking project, as well as non- capitalizable costs for NZ1. Interest expense. Interest expense increased by $ 0. 9 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to the interest on the RNG Project bonds, which was capitalized into construction in process during the construction phase of our RNG Project in the prior periods. Interest and dividend income. Interest and dividend income increased $ 2. 5 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to the higher interest rate earned on our investments and restricted cash. Gain on forgiveness of SBA Loans. During the year ended December 31, 2021, the Small Business Administration (" SBA") forgave $ 0. 6 million of the Company' s SBA loans and accrued interest. See Note 15 to the Consolidated Financial Statements for additional information. Other income. Other income increased $ 2. 7 million during the year ended December 31, 2022, compared to the year ended December 31, 2021, primarily due to our receipt of $ 2. 9 million from the U. S. Department of Agriculture' s Biofuel Producer Program to support biofuel producers who faced unexpected losses due to the COVID- 19 pandemic, partially offset by other expenses. Sources of Our Revenues Our current and historic revenues are primarily derived from: (i) the sale of RNG commodities and the related environmental attributes; (ii) hydrocarbon sales consisting primarily of the sale of SAF and isooctane derived from our isobutanol; (iii) the sale of isobutanol and related products; and (iv) government grants and research and development programs. Principal Components of Our Cost Structure Cost of Production. Our cost of production consists primarily of costs directly associated with the production of RNG and other renewable hydrocarbon products, including isobutanol, SAF, and isooctane. Such costs include direct materials, direct labor, other operating costs and certain plant overhead costs. Direct materials include feedstock, denaturant and process chemicals. Direct labor includes compensation (including stock- based compensation) of personnel directly involved in production operations. Other operating costs include utilities and natural gas and wind power usage. Research and Development. Our research and development expense consists of costs incurred to identify, develop and test our technologies for the production of renewable hydrocarbon products 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, 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. General and Administrative. 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, insurance costs, occupancy- related costs, travel and relocation expenses and hiring expenses. Project Development Costs. Project development costs consist of consulting, preliminary engineering costs, personnel expenses (including stock- based compensation) and research and development expenses to support the business activities of our Net- Zero Projects. Depreciation and Amortization. Depreciation and amortization relates to property, plant and equipment associated with the production of RNG and other renewable hydrocarbon products, including isobutanol, SAF, and isooctane, as well as that used in product development. Liquidity and Capital Resources As of December 31, 2022, we had cash and cash equivalents of $ 237. 1 million, short and long- term restricted cash of $ 78. 3 million and short- term marketable securities of $ 167. 4 million, net of unrealized losses of $ 1. 0 million, totaling $ 482. 8 million in cash, cash equivalents, and marketable securities. As of December 31, 2022, we had net working capital of $ 390. 0 million, with $ 25. 4 million of current liabilities. The marketable securities are highly liquid and can be converted to cash when needed for operations, development, and construction. We expect to use our cash, cash equivalents, restricted cash and marketable securities for the following purposes: (i) identification, development, acquisition and~~

~~construction of new production facilities and to plan for expanded production to fulfill existing offtake agreements for NZ1 and the Company' s other Net- Zero Projects; (ii) potential investment in RNG projects; (iii) potential development of the Luverne Facility; (iv) development, acquisition and operation of sustainable alcohol- to- SAF plants to produce SAF alone or with partners; (v) operating activities at the Company' s corporate headquarters in Colorado, including research and development work; (vi) exploration of strategic alternatives and additional financing, including project financing; and (vii) future debt service obligations. We believe as a result of our cash and cash equivalents balances, and the performance of our current and expected operations, we will be able to meet our obligations and other potential cash requirements during the next 12 months from the date of this report. Since our inception in 2005, we have devoted most of our cash resources to the development and commercialization of routes to efficiently produce fuels and chemicals from carbohydrates, such as renewable feedstock, using alcohols (isobutanol and ethanol) as intermediates. We have incurred losses since inception, have a significant accumulated deficit, and expect to incur losses for the foreseeable future. We have financed our operations primarily with proceeds from the issuance of equity, warrants, debt securities, and borrowings under debt facilities. We may fund future operations through additional private and / or public offerings of equity or debt securities. In addition, the Company may seek additional capital, on acceptable terms, through arrangements with strategic partners or from other sources. Notwithstanding, there can be no assurance that the Company will be able to raise additional funds or achieve or sustain profitability or positive cash flows from operations. The Company' s transition to profitability is dependent upon, among other things, the successful development and commercialization of its product candidates, the development, acquisition and construction of commercial level production facilities to support the Company' s offtake agreements, the achievement of a level of revenues adequate to support the Company' s cost structure, and the ability to raise capital to finance the development, acquisition, and construction of additional productions facilities. The following table sets forth the major sources and uses of cash for each of the periods set forth below (in thousands): Year Ended December 31, 20222021Net cash used in operating activities $ (52, 613) $ (48, 271) Net cash provided by (used in) investing activities93, 394 (411, 358) Net cash provided by financing activities138, 562 517, 324 Operating Activities Our primary uses of cash from operating activities are personnel- related expenses, and research and development- related expenses, including costs incurred under development agreements, costs of licensing of technology, legal- related costs, expenses for the development and commercialization of routes to efficiently produce fuels and chemicals from renewable feedstock carbohydrates using alcohols (isobutanol and ethanol) as an intermediate. During the year ended December 31, 2022, net cash used in operating activities was $ 52. 6 million compared to $ 48. 3 million for the year ended December 31, 2021. Non- cash charges primarily consisted of an impairment loss of $ 24. 7 million, depreciation and amortization of $ 7. 9 million, non- cash expense of $ 2. 7 million related to the amortization of marketable securities premiums, and stock- based compensation expense of $ 17. 4 million, which reflects higher amortization expense for the stock awards issued in the prior period with higher market value, see Note 16 to the Consolidated Financial Statements for additional information. The net cash outflow from changes in operating assets and liabilities decreased $ 4. 9 million, primarily due to a decrease in cash outflows of $ 2. 0 million in prepaid expenses and other current and long- term assets for licensing fees and deposits to secure long- lead equipment power transmission and distribution facilities for NZ1 as well as a decrease of $ 3. 9 million in accounts payable and accrued liabilities, partially offset by increased outflows of $ 1. 7 million for RNG inventories and amortization of prepaid insurance and other prepaid items. Investing Activities During the year ended December 31, 2022, we had $ 93. 4 million in cash provided by investing activities, of which $ 299. 6 million related to proceeds from sales and maturities of marketable securities, partially offset by the reinvestment of $ 130. 4 million in marketable securities, and $ 75. 8 million of investments in our capital projects, including $ 34. 7 million in the RNG Project, $ 35. 0 million in NZ1 and $ 2. 0 million in other Net- Zero Projects, as well as $ 4. 1 million in other isobutanol related projects. In July 2022, the purchase of the land for NZ1 in Lake Preston, South Dakota was completed. This was followed by a groundbreaking ceremony in Lake Preston in September 2022, and we believe NZ1 is on schedule with plant startup expected to be in 2025. Water and wind energy development agreements were executed in the third quarter of 2022, and other key milestones are on track for completion in accordance with our comprehensive project plan. Based on the ongoing engineering work, the installed cost for NZ1 is currently forecasted to be approximately $ 850 million, excluding certain contingencies and financing costs, $ 100 million to $ 200 million of which we expect to spend within the next 12 months prior to financial close when we expect to recover those development expenditures from permanent third- party capital. Additionally, we allocated approximately $ 25 million of capital for the next four to six months to develop our next Net- Zero Project. Gevo is in the process of identifying and performing early site development work for additional SAF production locations. These potential sites include several greenfield locations that are particularly advantageous in terms of potential economics, opportunities to decarbonize, and time to market. During the year ended December 31, 2021, we used $ 411. 4 million in cash for investing activities, of which $ 425. 0 million related to purchasing marketable securities and $ 56. 8 million primarily related to construction in process attributable to the RNG Project, and to a lesser extent, the purchase of a Hydrocarbon- Process Pilot Unit for our Luverne Facility and NZ1 project and $ 9. 2 million for the purchase of patents, which was partially offset by proceeds of $ 79. 6 million from the sale of marketable securities. Financing Activities During the year ended December 31, 2022, we had $ 138. 6 million of net cash provided by financing activities, primarily due to $ 139. 0 million of net proceeds from the issuance of common stock and common stock warrants in a registered direct offering in June 2022, offset by $ 0. 4 million of payments primarily for net settlement of common stock under stock plans and certain equipment loans. We currently expect to finance the construction of NZ1 at the subsidiary level using third party capital. The Company expects to retain a carried equity interest in the project, and may invest additional equity in the project using the proceeds from the reimbursement of the Company' s NZ1 development expenditures. Cash distributions from future NZ1 earnings would be proportionate to Gevo' s minority ownership in NZ1 under this expected financing structure which would reduce revenue to us but allow us to conserve and redeploy capital on other growth projects, including NZ2. We expect to apply similar development and financing approaches to NZ2 and future Net- Zero Projects to enable rapid growth of~~

~~SAF production to meet current contractual demand for SAF. During the year ended December 31, 2021, we generated $ 517. 3 million in cash from financing activities, which primarily consisted of $ 490. 5 million from the sale of common stock and exercise of warrants and $ 69. 0 million from the proceeds of the bonds issued to finance the construction of the RNG Project in April 2021, offset by $ 35. 0 million in debt and equity offering costs, $ 7. 0 million net settlement of common stock for taxes under our stock plans and $ 0. 2 million of payments on equipment loans and lease liabilities. Critical Accounting Estimates Our Consolidated Financial Statements are based on the application of U. S. GAAP, which requires us to make estimates and assumptions about future events that affect the amounts reported in our Consolidated Financial Statements and the accompanying notes. Future events and their effects cannot be determined with certainty; therefore, the determination of estimates requires the exercise of judgment. We believe our judgments related to these accounting estimates are appropriate. However, if different assumptions or conditions were to prevail, the results could be materially different from the amounts recorded. We have determined that we have no critical accounting estimates material to our consolidated financial position, results of operations or cash flow related to our consolidated financial statements included in this Report. Recent Accounting Pronouncements See Note 2, Summary of Significant Accounting Policies, in Item 8." Financial Statements and Supplemental Data," of this Report, for a discussion of recent accounting pronouncements. Item 7A. Quantitative and Qualitative Disclosures about Market Risk We are exposed to market risks related to environmental attribute pricing, commodity pricing, interest rate, credit risk with our contract counterparties, and equity price risks. We currently have no foreign exchange risk and do not use derivative financial instruments as part of an overall strategy to manage market risk; however, we may consider such arrangements in the future as we evaluate our business and financial strategy. Environmental Attribute and Commodity Pricing Risk We attempt to negotiate the best prices for our environmental attributes and to competitively price our products to reflect the fluctuations in market prices. Reductions in the market prices of environmental attributes may have a material adverse effect on our revenues and profits as they directly reduce our revenues. The price of RNG changes in relation to the market prices of wholesale gas. Pricing for wholesale gas is volatile and we expect this volatility to continue in the future. Further, volatility of wholesale gas also creates volatility in the prices of environmental attributes. Given the start- up status of our RNG Project and idling of Luverne Facilities we do not expect market price fluctuations to have a material impact on our financial condition or results of operations. Interest Rate Risk We are exposed to market risk related to changes in interest rates. Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U. S. interest rates, particularly because our investments, including cash equivalents, are invested in money market funds and U. S. treasury or government obligations. However, because of the short- term nature of our portfolio and the low- risk profile of our investments, a hypothetical immediate 10 % change in market interest rates would not have a material impact on the fair market value of our investments portfolio or on our financial condition or results of operations. Credit Risk We are subject to credit risk due to concentration of our RNG receivables with a limited number of significant customers. This concentration increases our exposure to credit risk on our receivables, since the financial insolvency of these customers could have a significant impact on our results of operations. Equity Price Risk We have in the past, and may in the future, seek to acquire additional funding by sale of common stock and other equity. The price of our common stock has been volatile in the past and may also be volatile in the future. As a result, there is a risk that we may not be able to sell our common stock at an acceptable price should the need for new equity funding arise. Item 8. Financial Statements and Supplementary Data Index to Gevo, Inc. Consolidated Financial Statements PageReport of Independent Registered Public Accounting Firm (PCAOB ID Number 248) 48Consolidated Balance Sheets49Consolidated Statements of Operations50Consolidated Statements of Comprehensive Income (Loss) 51Consolidated Statements of Stockholders' Equity52Consolidated Statements of Cash Flows53Notes to Consolidated Financial Statements55 REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM Board of Directors and Stockholders Opinion on the financial statements We have audited the accompanying consolidated balance sheets of Gevo, Inc. (a Delaware corporation) and subsidiaries the " Company ") as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the " financial statements "). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America. Change in accounting policy As discussed in Note 9 to the financial statements, the Company has elected to change its method of accounting for certain leases in 2022 and 2021. Basis for opinion These financial statements are the responsibility of the Company' s management. Our responsibility is to express an opinion on the Company' s financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (" PCAOB ") and are required to be independent with respect to the Company in accordance with the U. S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB. We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company' s internal control over financial reporting. Accordingly, we express no such opinion. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion. Critical audit matters Critical audit matters are matters arising from~~

~~the current period audit of the financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. We determined that there are no critical audit matters. / s / GRANT THORNTON LLP We have served as the Company' s auditor since 2015. Denver, Colorado March 9, 2023 GEVO, INC. CONSOLIDATED BALANCE SHEETS (In thousands, except share and per share amounts) NoteDecember 31, 2022December 31, 2021Assets Current assets Cash and cash equivalents $ 237, 125 $ 40, 833 Marketable securities (current) 6, 20167, 408 275, 340 Restricted cash (current) 71, 032 25, 032 Trade accounts receivable, net476 978 Inventories106, 347 2, 751 Prepaid expenses and other current assets83, 034 3, 607 Total current assets 415, 422 348, 541 Property, plant and equipment, net11176, 872 137, 742 Marketable securities (non- current) 6, 20 — 64, 396 Restricted cash (non- current) 777, 219 70, 168 Operating right- of- use assets91, 331 2, 414 Finance right- of- use assets9219 236 Intangible assets, net127, 691 8, 938 Deposits and other assets1321, 994 12, 946 Total Assets22 $ 700, 748 $ 645, 381 Liabilities Current liabilities Accounts payable and accrued liabilities14 $ 24, 760 $ 28, 150 Operating lease liabilities (current) 9438 772 Finance lease liabilities (current) 979 11 Loans payable- other (current) 15159 158 Total current liabilities 25, 436 29, 091 2021 Bonds payable (long- term) 15, 2067, 223 66, 486 Loans payable- other (long- term) 15159 318 Operating lease liabilities (long- term) 91, 450 1, 902 Finance lease liabilities (long- term) 9183 242 Other long- term liabilities 820 87 Total liabilities 95, 271 98, 126 Commitments and Contingencies19Stockholders' Equity Common stock, $ 0. 01 par value per share; 500, 000, 000 and 250, 000, 000 authorized at December 31, 2022 and 2021, respectively; 237, 166, 625 and 201, 988, 662 shares issued and outstanding at December 31, 2022 and 2021, respectively. 2, 372 2, 020 Additional paid- in capital1, 259, 527 1, 103, 224 Accumulated other comprehensive loss (1, 040) (614) Accumulated deficit (655, 382) (557, 375) Total stockholders' equity 605, 477 547, 255 Total Liabilities and Stockholders' Equity $ 700, 748 $ 645, 381 See the accompanying Notes to the Consolidated Financial Statements. CONSOLIDATED STATEMENTS OF OPERATIONS NoteYear Ended December 31, 20222021Total operating revenues3, 22 $ 1, 175 $ 533 Operating expenses: Cost of production168, 698 7, 687 Depreciation and amortization7, 887 5, 128 Research and development expense167, 427 6, 775 General and administrative expense1639, 941 25, 493 Project development costs1610, 061 10, 581 Facility idling costs4, 599 — Impairment loss424, 749 — Loss on disposal of assets10, 11499 5, 137 Total operating expenses103, 861 60, 801 Loss from operations22 (102, 686) (60, 268) Other income (expense) Interest expense (1, 167) (251) Investment income (loss) 63, 043 571 Gain on forgiveness of SBA loan15 — 641 Other income, net2, 803 104 Total other income, net4, 679 1, 065 Net loss $ (98, 007) $ (59, 203) Net loss per share- basic and diluted5 $ (0. 44) $ (0. 30) Weighted- average number of common shares outstanding- basic and diluted5221, 537, 262195, 794, 606 CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS) NoteYear Ended December 31, 20222021Net Loss $ (98, 007) $ (59, 203) Other comprehensive income loss: Unrealized loss on available- for- sale securities, net of tax6 (426) (614) Comprehensive loss $ (98, 433) $ (59, 817) CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY (In thousands, except share amounts) NoteCommon StockPaid- In CapitalAccumulated Other Comprehensive LossAccumulated DeficitStockholders' EquitySharesAmountBalance, December 31, 2020128, 138, 311 $ 1, 282 $ 643, 269 $ — $ (498, 172) $ 146, 379 Issuance of common stock, net of issuance costs1768, 170, 579682 456, 765 — — 457, 447 Issuance of common stock upon exercise of warrants171, 866, 75818 1, 103 — — 1, 121 Non- cash stock- based compensation13 — — 7, 700 — — 7, 700 Stock- based awards and related share issuances, net173, 813, 01438 (5, 613) — — (5, 575) Other comprehensive loss — — — (614) — (614) Net loss — — — — (59, 203) (59, 203) Balance, December 31, 2021201, 988, 662 $ 2, 020 $ 1, 103, 224 $ (614) $ (557, 375) $ 547, 255 Issuance of common stock and common stock warrants, net of issuance costs1733, 333, 336 $ 333 $ 138, 675 $ — $ — $ 139, 008 Issuance of common stock upon exercise of warrants174, 677 — 3 — — 3 Non- cash stock- based compensation13 — — 17, 419 — — 17, 419 Stock- based awards and related share issuances, net171, 839, 95019 206 — — 225 Other comprehensive loss — — — (426) — (426) Net loss — — — — (98, 007) (98, 007) Balance, December 31, 2022237, 166, 625 $ 2, 372 $ 1, 259, 527 $ (1, 040) $ (655, 382) $ 605, 477 CONSOLIDATED STATEMENTS OF CASH FLOWS (In thousands) NoteYear Ended December 31, 20222021Operating Activities Net loss $ (98, 007) $ (59, 203) Adjustments to reconcile net loss to net cash used in operating activities: Impairment loss424, 749 — Loss on disposal of assets499 5, 137 (Gain) on forgiveness of SBA Loans15 — (641) Stock- based compensation1617, 419 9, 874 Depreciation and amortization11, 127, 887 5, 128 Amortization of marketable securities premium2, 723 5, 029 Other noncash (income) expense877 89 Changes in operating assets and liabilities: Accounts receivable502 (257) Inventories10 (2, 004) (259) Prepaid expenses and other current assets, deposits and other assets7, 13 (10, 893) (12, 897) Accounts payable, accrued expenses and long- term liabilities14, 153, 635 (271) Net cash used in operating activities (52, 613) (48, 271) Investing Activities Acquisitions of property, plant and equipment11 (75, 775) (56, 770) Acquisition of patent portfolio12 (10) — Proceeds from sale and maturity of marketable securities6299, 581 79, 574 Purchase of patents and license — (9, 170) Purchase of marketable securities6 (130, 402) (424, 992) Net cash provided by (used in) investing activities93, 394 (411, 358) Financing Activities Proceeds from issuance of 2021 Bonds15 — 68, 995 Debt and equity offering costs21 (10, 993) (34, 955) Proceeds from issuance of common stock and common stock warrants21150, 000 489, 373 Proceeds from exercise of warrants213 1, 121 Net settlement of common stock under stock plans16 (286) (7, 041) Payment of loans payable- other15 (150) (154) Payment of finance lease liabilities9 (12) (15) Net cash provided by financing activities 138, 562 517, 324 Net increase in cash and cash equivalents 179, 343 57, 695 Cash, cash equivalents and restricted cash at beginning of period 136, 033 78, 338 Cash, cash equivalents and restricted cash at end of period $ 315, 376 $ 136, 033 CONSOLIDATED STATEMENTS OF CASH FLOWS — (Continued) Year Ended December 31, Schedule of cash, cash equivalents and restricted cash20222021Cash and cash equivalents $ 237, 125 $ 40, 833 Restricted cash (current) 1, 032 25, 032 Long- term restricted cash77, 219 70, 168 Total cash, cash equivalents and restricted cash $ 315, 376 $ 136, 033 Year Ended December 31, Supplemental disclosures of cash and non- cash investing and financing transactions20222021Cash paid for interest, net of amounts capitalized $ 522 $ (806) Non- cash purchase of property, plant and equipment13, 837 20, 287 Right- of- use asset purchased with financing leases — 245 Right- of-~~

use asset purchased with operating lease — 1, 611 Non- cash interest capitalized to construction in progress — 1, 125 1. Nature of Business, Financial Condition and Basis of Presentation Nature of business. Gevo, Inc. (Nasdaq: GEVO) (" Gevo"," we"," us"," our", or the" Company," which, unless otherwise indicated, refers to Gevo, Inc. and its subsidiaries), a Delaware corporation founded in 2005, is a growth- oriented company with the mission of solving greenhouse gas (" GHG") emissions for those sectors of the transportation industry that are not amenable to electrification or hydrogen. The Company is focused on transforming renewable energy into energy- dense liquid drop- in hydrocarbons that can be used as renewable fuels, such as sustainable aviation fuel (" SAF") and other fuels and chemicals, with the potential to achieve a " net- zero " GHG footprint. The Company uses the Argonne National Laboratory' s GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation) model (the" GREET Model") to measure, predict and verify GHG emissions across the life- cycle of its products. The " net- zero " concept means Gevo expects that by using sustainably grown feedstock (i. e., low till, no- till and dry corn cultivation), renewable and substantially decarbonized energy sources, drop- in hydrocarbon fuels can be produced that have a net- zero, full life cycle footprint measured from the capture of renewable carbon through the burning of the fuel. Gevo' s primary market focus, given current demand and growing customer interest, is SAF. The Company believes it also has commercial opportunities for other renewable hydrocarbon products, such as (i) renewable natural gas (" RNG "), (ii) hydrocarbons for gasoline blendstocks and diesel fuel, and (iii) plastics, materials and other chemicals. In early 2021, we announced the concept of " Net- Zero Projects " as a series of planned facilities to produce energy dense liquid hydrocarbons using renewable energy and our proprietary technology. The concept of a Net- Zero Project is to convert renewable energy (e. g., photosynthetic, wind, RNG, biogas) from a variety of sources into energy dense liquid hydrocarbons that, when burned in traditional engines, have the potential to achieve net- zero GHG emissions across the whole lifecycle of the liquid fuel: from the way carbon is captured from the atmosphere, processed to make liquid fuel products, and burnt as a fuel for cars, planes, trucks and ships. Our initial Net- Zero Project, Net- Zero 1 (" NZ1"), is located in Lake Preston, South Dakota, and is being currently designed to produce approximately 62 million gallons per year (" MGPY") of total hydrocarbon volumes, including 55 MGPY of SAF. Along with the hydrocarbons, NZ1 is being currently designed to produce approximately 475 million pounds per year of high- value protein products for use in the food chain and more than 30 million pounds per year of corn oil. Our products will be produced in three steps; the first step is milling the corn and the production of protein, oil, and carbohydrates, the second step produces alcohols using fermentation and the third step is the conversion of the alcohols into hydrocarbons. Gevo' s RNG project in Northwest Iowa (" NW Iowa RNG") is owned by Gevo NW Iowa RNG, LLC, and produces RNG captured from dairy cow manure. The manure is supplied by three local dairies that have over 20, 000 milking cows in total with additional milking cows expected pursuant to agreements executed during the second quarter of 2022. Animal manure can be digested anaerobically to produce biogas, which is then upgraded to pipeline quality gas referred to as RNG. Gevo NW Iowa RNG, LLC sells the produced RNG to the California market through an agreement with BP Canada Energy Marketing Corp. and BP Products North America Inc. (collectively," BP"). Gevo' s development plant in Luverne, Minnesota (the" Luverne Facility") was originally constructed in 1998 and is located on approximately 55 acres of land, which contains approximately 50, 000 square feet of building space. Gevo may use the Luverne Facility in the future to prove our processes, process concepts, unit operations and for other purposes in order to optimize feedstocks and the processes used for producing hydrocarbons from alcohols. Currently, the activities at the Luverne Facility are minimized to care and maintenance, as the Company has shifted focus to the Net- Zero Projects. GEVO, INC. Notes to Consolidated Financial Statements (Continued) Financial Condition. The Company has incurred consolidated net losses since inception and had a significant accumulated deficit as of December 31, 2022. The Company' s cash and cash equivalents totaled $ 237. 1 million, short and long- term restricted cash totaled $ 78. 3 million and marketable securities totaled $ 167. 4 million as of December 31, 2022. 2. Summary of Significant Accounting Policies Principles of Consolidation. The Consolidated Financial Statements of Gevo include the accounts of its wholly- owned subsidiaries. All intercompany balances and transactions have been eliminated in consolidation. Basis of Presentation. The Consolidated Financial Statements of the Company (which include the accounts of its wholly- owned subsidiaries Gevo Asset, LLC, Gevo RNG Holdco, LLC, Gevo NW Iowa RNG, LLC, Gevo Net- Zero HoldCo, LLC, Gevo Net- Zero 1, LLC and Agri- Energy, LLC) have been prepared pursuant to the rules and regulations of the U. S. Securities and Exchange Commission (the" SEC") and accounting principles generally accepted in the U. S. (" U. S. GAAP") for complete financial statements. These statements reflect all normal and recurring adjustments which, in the opinion of management, are necessary to present fairly the financial position, results of operations and cash flows of the Company at December 31, 2022. Reclassifications. The Company reclassified certain prior period amounts to conform to the current period presentation. The reclassifications included removing a redundant subtotal, cost of goods sold, to align with industry peers and the categorization of depreciation and amortization on the Consolidated Statements of Operations, which had no impact on total revenues, total operating expenses, net loss or stockholders' equity for any period. Use of Estimates. The preparation of consolidated financial statements in conformity with U. S. 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 and money market funds. Cash, Cash Equivalents and Restricted Cash. The Company maintains its cash and cash equivalents in highly liquid interest- bearing money market accounts or non- interest- bearing demand accounts. The Company considers all highly liquid investments purchased with a maturity of three months or less at the date of acquisition to be cash equivalents. Restricted cash is classified as current or non- current based on the terms of the underlying agreements and represents cash held as deposits and cash collateral for financial letters of credit. Marketable Securities. The Company' s marketable securities consist of marketable debt securities and have been classified and

~~accounted for as available- for- sale. Management determines the appropriate classification of its investments at the time of purchase and reevaluates the classifications at each balance sheet date. The Company classifies its marketable securities as either short- term or long- term based on each instrument' s underlying contractual maturity date. Marketable securities with maturities of 12 months or less are classified as short- term and marketable securities with maturities greater than 12 months are classified as long- term. The Company' s marketable securities are carried at fair value, with unrealized gains and losses, net of taxes, reported as a component of accumulated other comprehensive loss in shareholders' equity, with the exception of unrealized losses believed to be other- than- temporary, which are reported in earnings in the current period. Trade Accounts Receivable, net. The Company records receivables for products shipped and services provided but for which payment has not yet been received. In evaluating its allowance for doubtful accounts for accounts receivable, the Company performs ongoing reviews of its outstanding receivables to determine if any amounts are uncollectible and adjusts the allowance for doubtful accounts accordingly. Inventories. Inventory is recorded at net realizable value. Isobutanol and ethanol inventory cost consists of the applicable share of raw material, direct labor and manufacturing overhead. Work in process inventory includes unfinished SAF, isooctane and isooctene inventory. Spare Parts inventory consists of the parts required to maintain and operate the Company' s Luverne Facility and is recorded at cost. For each reporting period, the Company reviews the value of inventories on hand to estimate the recoverability through future sales. The Company reduces its inventories with adjustments for lower of cost or net realizable value, with cost determined by the average cost method. Environmental Attribute Inventory. The Company generates D3 Renewable Identification Numbers (" RINs") and Low Carbon Fuel Standard (" LCFS") credits (collectively," environmental attributes") through the production of RNG used for transportation purposes as prescribed under the Renewable Fuels Standard program (" RFS"). Environmental attribute inventory is included as a component of" Inventories" on the Consolidated Balance Sheets. The Company considers environmental attributes to be a distinguishable product that is generated as an integral component of the production process of RNG as the environmental attributes that are generated can be separated from the underlying commodity and may be sold independently from the RNG produced. As such, the Company considers environmental attributes to be a co- product of the production of RNG and accordingly allocates the costs of production based on the relative sales value of all revenue items for the NW Iowa RNG operations. The value of the environmental attributes is reviewed for potential write- downs based on the net realizable value methodology. Revenue is recognized on these environmental attributes when there is an agreement in place to monetize the credits at an agreed upon price with a customer based upon defined third party market prices and a transfer of control has occurred. Property, Plant and Equipment. Property, plant and equipment are recorded at cost less accumulated depreciation and amortization. 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. Construction in Progress. Construction in progress represents expenditures necessary to bring an asset, project, new facilities or equipment to the condition and location necessary for its intended use and are capitalized and recorded at cost. Once completed and ready for its intended use, the asset is transferred to property, plant and equipment to be depreciated or amortized. Depreciation and Amortization. Capitalized costs are depreciated or amortized using the straight- line method at rates sufficient to depreciate such costs over the shorter of estimated productive lives of such assets or the useful life of the individual assets. The estimates of productive lives may change, possibly in the near term, resulting in changes to depreciation and amortization rates in future reporting periods. Impairment of Long- Lived Assets. The Company evaluates the recoverability of the recorded amount of long- lived assets, including property, plant and equipment, licenses, patents, operating lease right- of- use assets, and finance lease right- of- use assets when events or changes in circumstances indicate that their carrying amount may not be recoverable. The carrying amount of a long- lived asset is considered to be impaired if it exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the assets. If the Company determines that an asset is impaired, it measures the impairment to be recognized as the amount by which the recorded amount of the asset exceeds its fair value. A summary of impairment losses on tangible and intangible assets for the years ended December 31, 2022 and 2021 is included in Note 4, Asset Impairment. Leases, Right- of- Use Assets and Related Liabilities. The Company enters into various arrangements which constitute a lease as defined by Accounting Standards Codification (" ASC") 842, Leases, as part of its ongoing business activities and operations. Leases represent a contract or part of a contract that conveys the right to control the use of identified property, plant or equipment (an identified asset) for a period of time in exchange for consideration. Such contracts result in both (a) right- of- use assets, which represent the Company' s right to use an underlying asset for the term of the contract; and (b) a corresponding lease liability which represents the Company' s obligation to make the lease payments arising from the contract. The Company has elected not to recognize a right- of- use asset and lease liability for any lease with an original lease term of 12 months or less. Lease expense for such leases is recognized on a straight- line basis over the lease term. A lease is classified as a finance lease when one or more of the following criteria are met: (i) the lease transfers ownership of the asset by the end of the lease term, (ii) the lease contains an option to purchase the asset that is reasonably certain to be exercised, (iii) the lease term is for a major part of the remaining useful life of the asset, (iv) the present value of the lease payments equals or exceeds substantially all of the fair value of the asset, or (v) the asset is of such a specialized nature that it is expected to have no alternative use to the lessor at the end of the lease term. If a lease does not meet any of these criteria, the lease is classified as an operating lease. Lease liabilities are initially measured at the lease commencement date based on the present value of lease payments over the lease term, discounted using an estimate of the Company' s incremental borrowing rate for a collateralized loan with the same term and payment as the lease. Right- of- use assets are measured based on the amount of the lease liability adjusted for any lease payments made to the lessor at or before the lease commencement date less any lease incentives received. All right- of- use assets are evaluated for impairment in accordance with accounting standards applicable to long- lived assets. Renewal options are included in the calculation of our right- of- use assets and lease liabilities when the Company determines that the option is reasonably certain of exercise based on~~

~~an analysis of the relevant facts and circumstances. Certain of the Company' s leases require variable lease payments that do not depend on an index or rate and such payments are excluded from the calculation of the right- of- use asset and lease liability and are recognized as variable lease cost when incurred. Lease cost for operating leases consists of the fixed lease payments recognized on a straight- line basis over the lease term plus variable lease payments as incurred. Lease cost for finance leases consists of amortization of the right- of- use assets on a straight- line basis over the lease term, interest expense on the lease liability and variable lease payments as incurred. The Company has elected the practical expedient to account for the lease and non- lease components as a single lease component for its corporate office lease asset class. Effective October 1, 2022, the Company made the voluntary determination to change its accounting policy covering the application of the practical expedient under ASC 842, Leases. Under the new accounting policy, the Company will account for lease components separately from non- lease components for the Company' s dairy lease asset class. The Company voluntarily elected this acceptable change in accounting policy effective October 1, 2022. The Company believes the change is preferable as it provides the most useful and transparent financial information and improves comparability and consistency of financial information, resulting in improved financial reporting and alignment with financial information used internally by management. The total consideration in the lease agreement will be allocated to the lease and non- lease components based on their relative standalone selling prices. Under the previous treatment, all amounts paid to the lessor under these arrangements for use of the land and cow manure were classified as lease payments and included in the calculation of the right- of- use assets and lease liabilities. The Company has retrospectively adopted this change in accounting policy described above and has provided the appropriate disclosures as required in ASC 250- 10, see Note 9 Leases. Intangible assets. Intangible assets consist of patents. Costs related to patents, including legal fees, are capitalized and amortized over the estimated useful lives using the straight- line method. Amortization expense is recorded in" Depreciation and amortization" in the Operating expenses section of the Consolidated Statements of Operations. For patents purchased in an asset acquisition, the useful life is determined by valuation estimates of remaining economic life. The patents are included in" Intangible assets, net" on the Consolidated Balance Sheets. The Company periodically evaluates the amortization period and carrying value of its patents to determine whether any events or circumstances warrant revised estimated useful life or reduction in value. Borrowing Costs. The borrowing costs that are directly attributable to the acquisition and construction of an asset that needs a substantially long period of time for its intended use to begin are capitalized and recorded as part of the cost of the asset when expenditures for the asset and borrowing costs have been incurred, and the activities relating to the acquisition and construction that are necessary to prepare the asset for its intended use have commenced. The capitalization of borrowing costs ceases when the asset under acquisition or construction becomes ready for its intended use and the borrowing costs incurred thereafter are recognized in profit or loss for the current period. The capitalization of borrowing costs is suspended during periods in which the acquisition or construction of an asset is interrupted abnormally and the interruption lasts for more than three months, until the acquisition or construction is resumed. Debt Issuance Costs and Debt Discounts / Premiums. Debt issuance costs are costs with third parties incurred in connection with the Company' s debt financings that have been capitalized and are being amortized over the stated maturity period or estimated life of the related debt using the effective interest method. Debt issuance costs are presented as a direct reduction of the carrying amount of the related debt. Debt discounts, including fees paid to lenders, and debt premiums are amortized over the life of the related debt using the effective interest method. Debt discounts and premiums are presented as a reduction and increase, respectively, in the carrying amount of the related debt. Amortization of debt issuance costs, discounts and premiums is included in interest expense. Warrants. Warrants are classified as a component of permanent equity when they are freestanding financial instruments that are legally detachable and separately exercisable from the shares of common stock with which they were issued, are immediately exercisable, do not embody an obligation for the Company to repurchase its shares, permit the holders to receive a fixed number of shares of common stock upon exercise and do not provide any guarantee of value or return. Revenue Recognition. The Company recognizes revenue in accordance with ASC 606, Revenue from Contracts with Customers (" ASC 606 "). Revenue from the Company' s point in time product sales is recognized when products are transferred, or services are invoiced and control transferred. The Company has presented the disclosures required by ASC 606, see Note 3, Revenues from contracts with customers and other revenues. Cost of Production. Cost of production includes costs incurred in operations for the production of RNG and isobutanol, as well as costs for direct materials, direct labor and certain plant overhead costs, and plant utilities including natural gas and wind power. Direct materials consist of dextrose for initial production of isobutanol, corn feedstock, manure feedstock, denaturant, and process chemicals. Direct labor includes compensation of personnel directly involved in production operations. Plant overhead costs primarily consist of plant utilities. The Company purchases natural gas and wind power to power steam generation in the production process and to dry the distillers grains, a by- product of ethanol and related products production. Research and Development. Research and development costs are expensed as incurred. 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 (including stock- based compensation), consultants and related contract research, facility costs, supplies, 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. General and Administrative. General and administrative expense are expensed as incurred. The Company' s general and administrative costs consist of personnel costs (including stock- based compensation), consulting and service provider expenses (including patent counsel- related costs), legal fees, marketing costs, insurance costs, occupancy- related costs, travel and relocation expenses and hiring expenses. Project Development Costs. Project development costs consist of consulting, preliminary engineering costs, and personnel costs, including stock- based compensation. Stock- Based Compensation. The Company' s stock- based compensation expense includes expenses associated with share- based awards granted to employees and board members. Our stock- based compensation is classified as either an equity award or a liability~~

award in accordance with U. S. GAAP. The fair value of an equity- classified award is determined at the grant date and is amortized on a straight- line basis over the requisite service period. The fair- value of a liability- classified award is determined on a quarterly basis through the final vesting date and is amortized based on the current fair value of the award and the percentage of vesting period incurred to date. The grant date fair value for stock option awards is estimated using the Black-Scholes option pricing model and the grant date fair value for restricted stock awards is based upon the closing price of the Company' s common stock on the date of grant. The Company recognizes compensation costs for share- based payment awards granted to employees net of actual forfeitures and recognizes stock- based compensation expense for only those awards expected to vest on a straight- line basis over the requisite service period of the award, which is currently the vesting term of up to three years. The Company accounts for stock- based employee compensation plans under the fair value recognition and measurement provisions in accordance with applicable accounting standards, which require all stock- based payments to employees, including grants of stock options and restricted stock awards, to be measured based on the grant date fair value of the awards, with the resulting expense generally recognized on a straight- line basis over the period during which the employee is required to perform service in exchange for the award. Stock- based compensation expense related to restricted stock awards and stock options are recorded net of actual forfeitures in our Consolidated Statements of Operations. Liability awards are subject to variable accounting treatment, such that they are remeasured at fair value each reporting period through the Consolidated Statements of Operations. Any impact of forfeitures are based on actual forfeitures, although not affecting the fair value measurement of the awards, and are reflected at that time as well. Income Taxes. In preparing the Consolidated Financial Statements, the Company estimates the actual amount of taxes currently payable or receivable as well as deferred tax assets and liabilities attributable to temporary differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using currently enacted tax rates in effect in the years in which those temporary differences are expected to reverse. Deferred tax assets are be reduced by a valuation allowance if, based on the weight of available evidence, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Changes in deferred tax assets and liabilities generally have a direct impact on earnings in the period of the changes. Where applicable tax laws and regulations are either unclear or subject to varying interpretations, it is possible that changes in these estimates could occur that materially affect the amounts of deferred income tax assets and liabilities recorded in the Consolidated Financial Statements. Each period, we evaluate the likelihood of whether or not some portion or all of each deferred tax asset will be realized and provide a valuation allowance for those deferred tax assets for which it is more likely than not that the related benefits will not be realized. When evaluating our valuation allowance, we consider historic and future expected levels of taxable income, the pattern and timing of reversals of taxable temporary timing differences that give rise to deferred tax liabilities, and tax planning initiatives. Levels of future taxable income are affected by, among other things, production costs, interest rates, and federal and local legislation. If we determine that all or a portion of the deferred tax assets will not be realized, a valuation allowance will be recorded with a charge to income tax expense. Conversely, if we determine that we will ultimately be able to realize all or a portion of the related benefits for which a valuation allowance has been provided, all or a portion of the related valuation allowance will be reduced with a credit to income tax expense. In addition, the calculation of income tax expense involves significant management estimation and judgment involving a number of assumptions. In determining these amounts, management interprets tax legislation in each of the jurisdictions in which we operate and makes estimates of the expected timing of the reversal of future tax assets and liabilities. We also make assumptions about future earnings, tax planning strategies and the extent to which potential future tax benefits will be used. We are also subject to assessments by various taxation authorities which may interpret tax legislation differently, which could affect the final amount or the timing of tax payments. The Company may from time to time be assessed interest or penalties by major tax jurisdictions, although there have been no such assessments historically with any material impact to its financial results. The Company would recognize interest and penalties related to unrecognized tax benefits within the income tax expense line in the accompanying Consolidated Statements of Operations. Accrued interest and penalties would be included within the related tax liability line in the Consolidated Balance Sheets. Recently Adopted Accounting Pronouncements Government Assistance Disclosures. In November 2021, the FASB issued ASU 2021- 10, Disclosures by Business Entities about Government Assistance (" ASU 2021- 10 "). ASU 2021- 10 details financial reporting disclosure requirements that increase the transparency of transactions with a government accounted for by applying a grant or contribution accounting model by analogy. The new guidance is effective for annual periods beginning after December 15, 2021 and interim reporting periods within those reporting periods. The Company adopted the new standard as of January 1, 2022, which did not have an impact on the Company' s disclosures related to governmental grants or an impact to the results of operations and financial position as of the adoption date. See Note 15, Debt, for additional disclosures related to the Small Business Administration' s Paycheck Protection Program (" SBA PPP"). 3. Revenues from Contracts with Customers and Other Revenue The Company' s revenues are primarily comprised of the sale of RNG and related environmental attributes produced at the NW Iowa RNG facility under long- term contracts with customers. Revenue is recognized at a point in time when the Company transfers the product to its customer as the customer obtains control of the product upon delivery. The Company generally has a single performance obligation in our arrangements with customers. The Company' s performance obligation related to the sales of RNG and related environmental attributes are satisfied at a point in time upon delivery to the customer. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring its products. There is no variable consideration present in the Company' s performance obligations. Consideration for each transaction is based upon quoted market prices at the time of delivery. The Company recognized $ 0. 6 million of revenue from the sale of RNG during the year ended December 31, 2022 and recognized $ 0. 2 million from the sale of environmental attributes during the year ended December 31, 2022. The Company recorded limited revenues from its development- scale plant, the Luverne Facility, during each of the years ended December 31, 2022, and 2021. These revenues were promotional in nature and from customer contracts for ethanol sales and related products and

~~hydrocarbon revenues, which included SAF, isooctene, and isooctane. These products were sold mostly on a free- on- board, shipping point basis (recognized at a point in time), were independent transactions, did not provide post- sale support or promises to deliver future goods, and were single performance obligations. The following tables display the Company' s revenue by major source based on product type for the years ended December 31, 2022 and 2021 (in thousands): Year Ended December 31, Major Goods / Service Line20222021Ethanol sales and related products, net $ 240 $ 50 Hydrocarbon revenue81 483 Renewable natural gas commodity640 — Environmental attribute revenue214 — Total operating revenue $ 1, 175 $ 533 All goods transferred are tested to ensure that the product sold satisfies the contractual product specifications prior to transfer. The customer obtains control of the goods when title and risk of loss for the goods has transferred. All material contracts have payment terms of between one to three months and there are no return or refund rights. Contract Assets and Trade Receivables. As of December 31, 2022 and 2021, there were no contract assets or liabilities as all customer amounts owed to the Company are unconditional and the Company does not receive payment in advance for its products. Accordingly, amounts owed by customers are included in" Trade accounts receivable, net" on the Company' s Consolidated Balance Sheets. In addition, due to the nature of the Company' s contracts, there are no costs incurred or to be paid in the future that qualify for asset recognition as a cost to fulfill or obtain a contract. 4. Asset Impairment During the year ended December 31, 2022, the Company recorded a $ 24. 7 million impairment loss on long- lived assets, to reduce the carrying value of certain property, plant, and equipment, and a leased right of use (" ROU") asset, at the Agri- Energy, LLC (" Agri- Energy") segment to its fair value. The impairments recorded to date relate to the decision to suspend production at the Luverne Facility and shift the plant into an idled, care and maintenance status during the third quarter of 2022. As a result of this change in use, combined with a sustained history of operating losses, the Company assessed that indicators of impairment were present for long- lived assets within its Agri- Energy reporting segment. The Company therefore performed impairment testing and determined that the carrying amounts of certain property plant and equipment and the leased ROU asset exceeded estimated fair values. The Company estimated the fair value of these asset groups generally using a cost approach which is based on replacement or reproduction costs of the assets and is considered a Level 2 measurement and recorded a corresponding impairment loss under Operating Expenses within the Consolidated Statements of Operations. There were no impairment losses recorded during the year ended December 31, 2021. 5. Net Loss per Share Basic net loss per share is calculated based on the weighted average number of common shares outstanding for the period. Diluted net loss per share is calculated based on the assumption that stock options and other dilutive securities outstanding, which have an exercise price less than the average market price of the Company' s common shares during the period, would have been exercised on the later of the beginning of the period or the date granted, and that the funds obtained from the exercise were used to purchase common shares at the average market price during the period. None of the Company' s stock options or other dilutive securities are considered to be dilutive in periods with net losses. The effect of the Company' s dilutive securities is calculated using the treasury stock method and only those instruments that result in a reduction in net income per common share are included in the calculation. Diluted net loss per share excluded common stock equivalents because the effect of their inclusion would be anti- dilutive or would decrease the reported net loss per share. Therefore 1, 675, 741 and 4, 911, 841 of potentially dilutive common stock equivalents have been excluded for the years ended December 31, 2022 and 2021, respectively. Basic and diluted net loss per share is calculated as follows (net loss in thousands): Year Ended December 31, 20222021Net loss $ (98, 007) $ (59, 203) Basic weighted- average shares outstanding221, 537, 262195, 794, 606Net loss per share- basic and diluted $ (0. 44) $ (0. 30) 6. Marketable Securities The Company' s investments in marketable securities are stated at fair value and are available- for- sale. The following table summarizes the Company' s investments in marketable securities (in thousands) as of: December 31, 2022MaturityAmortized Cost BasisGross Unrealized LossesFair ValueShort- term marketable securitiesU. S. Treasury notesWithin one year $ 56, 418 $ (344) $ 56, 074 U. S. Government- sponsored enterprise securitiesWithin one year112, 030 (696) 111, 334 Total short- term marketable securities $ 168, 448 $ (1, 040) $ 167, 408 December 31, 2021MaturityAmortized Cost BasisGross Unrealized LossesFair ValueShort- term marketable securitiesU. S. Treasury notesWithin one year $ 226, 136 $ (344) $ 225, 792 U. S. Government- sponsored enterprise securitiesWithin one year49, 618 (70) 49, 548 Total short- term marketable securities $ 275, 754 $ (414) $ 275, 340 Long- term marketable securitiesU. S. Government- sponsored enterprise securitiesWithin two years64, 596 (200) 64, 396 Total long- term marketable securities $ 64, 596 $ (200) $ 64, 396 The cost of securities sold is based upon the specific identification method. Interest receivable related to the marketable securities of $ 0. 5 million and $ 1. 5 million was included within" Prepaid expenses and other current assets" on the Consolidated Balance Sheets as of December 31, 2022 and 2021, respectively. Interest income from marketable securities totaled $ 4. 3 million and $ 0. 5 million for the years ended December 31, 2022 and 2021, respectively, and is included in" Investment income (loss)" in the Consolidated Statements of Operations. Future maturities of the Company' s marketable securities are $ 168. 6 million in 2023. 7. Restricted Cash Short- term and long- term restricted cash of $ 78. 3 million consists of amounts held as collateral for letters of credit to provide financing support for development and construction of the NW Iowa RNG and NZ1 projects and interest earned on restricted cash. The Company entered into an irrevocable direct pay letter of credit (the" Bond Letter of Credit") with Citibank N. A (" Citibank") in April 2021 to support the 2021 Bonds (as defined below) for the development and construction of NW Iowa RNG. See Note 14, Debt, for additional information on the 2021 Bonds. The Bond Letter of Credit has a 0. 5 % annual fee and expires April 4, 2024 (unless terminated earlier). The Company deposited $ 71. 2 million with Citibank as restricted cash to secure any amounts drawn under the Bond Letter of Credit. The Company is entitled to receive interest income on the restricted cash, and recorded interest income of $ 0. 5 million for the year ended December 31, 2022, included in" Other income, net" in the Consolidated Statements of Operations. As of December 31, 2022, no amounts have been drawn under the Bond Letter of Credit. The proceeds from issuance of the 2021 Bonds recorded as restricted cash are maintained by the Trustee (as defined below) under the Indenture (as defined below) and are released to the Company to pay costs of the construction of NW Iowa RNG. The Company has used all bond proceeds for the project as of December 31, 2022. In September 2022, the Company entered into a Pledge and Assignment agreement~~

~~with Citibank to provide credit support in the form of a letter of credit (the “ Power Letter of Credit ”) from Citibank to a local electric utility company in order to induce the utility company to design and construct the power transmission and distribution facilities that will serve NZ1. The Company deposited $ 6. 6 million of restricted cash in an account with Citibank to collateralize the Power Letter of Credit, which has a 0. 3 % annual fee and expires September 30, 2024 (unless terminated earlier). As of December 31, 2022, no amounts have been drawn under the Power Letter of Credit. 8. Prepaid and Other Current Assets The following table sets forth the components of the Company’ s prepaid and other current assets (in thousands) as of: December 31, 20222021Prepaid insurance $ 911 $ 805 Interest receivable514 1, 530 Prepaid engineering — 409 Prepaid feedstock, current1, 097 — Prepaid other512 863 Total Prepaid and other current assets $ 3, 034 $ 3, 607 9. Leases, Right- of- Use Assets and Related Liabilities The Company is party to an operating lease contract for the Company’ s office and research facility in Englewood, Colorado, which expires in January 2029. The lease contains an option to extend the lease which management does not reasonably expect to exercise, so it is not included in the length of the term. The Company also has one production line piece of equipment with an operating lease that expires in 2024. The Company has four finance leases for land under arrangements related to NW Iowa RNG. Under these contracts, the Company leases land from dairy farmers on which it has built three anaerobic digesters, and related equipment and pipelines to condition raw biogas from cow manure provided by the farmers. The partially conditioned biogas is transported from the three digester sites to a central gas upgrade system located at the fourth site that upgrades the biogas to pipeline- quality RNG for sale. These leases expire at various dates between 2031 and 2050. Effective October 1, 2022, the Company elected to change its accounting policy covering the application of the practical expedient under ASC 842, Leases. Under the new accounting policy, the Company will account for lease components separately from non- lease components for the Company’ s dairy lease asset class. Under the previous treatment, all amounts paid to the lessor under these arrangements for use of the land, cow manure, and other non- lease services were classified as lease payments and included in the calculation of the right- of- use assets and lease liabilities. Upon commencement of operations at NW Iowa RNG in the third quarter of 2022, the Company’ s dairy lease agreements were evaluated, and it was determined that the practical expedient less accurately reflected the economic substance of the agreements. The Company voluntarily elected this acceptable change in accounting policy effective October 1, 2022. The Company believes the change is preferable as it provides the most useful and transparent financial information and improves comparability and consistency of financial information, resulting in improved financial reporting and alignment with financial information used internally by management. As a result of this change in policy, the Company will retroactively no longer combine lease and non- lease components for all leases in the dairy lease asset class and will account for non- lease components separately and under other, applicable accounting standards. A summary of the impact of the change in accounting policy on the Consolidated Balance Sheets for each of the three months ended June 30, 2021, September 30, 2021, December 31, 2021, March 31, 2022, June 30, 2022, and September 30, 2022, respectively is as follows: a reduction to Finance Right of Use Asset of $ 27. 3 million, $ 27. 4 million, $ 27. 1 million, $ 26. 7 million, $ 27. 3 million, and $ 26. 8 million; a reduction to Finance Lease Liabilities (Current) of $ 4. 9 million, $ 2. 7 million, $ 3. 4 million, $ 4. 0 million, $ 6. 2 million, and $ 2. 1 million; a reduction to Finance Lease Liabilities (Long- Term) of $ 19. 5 million, $ 19. 4 million, $ 17. 6 million, $ 17. 2 million, $ 16. 2 million, and $ 16. 2 million; a reduction to Construction in Progress of $ 0. 8 million, $ 0. 8 million, $ 0. 8 million, $ 0. 7 million, $ 0. 7 million, and $ 0. 9 million; and an increase to Other Assets of $ 3. 4 million, $ 6. 0 million, $ 7. 4 million, $ 7. 5 million, $ 7. 7 million, and $ 8. 7 million. The Company further recorded an increase to Prepaid Expenses of $ 1. 1 million and Other Assets of $ 0. 9 million for the three months ended June 30, 2022. A summary of the impact of the change in accounting policy on the Consolidated Statements of Cash Flows for each of the three months ended September 30, 2021, December 31, 2021, and September 30, 2022, respectively is as follows: an increase in Cash Used in Operating Activities of $ 3. 0 million, $ 4. 5 million, and $ 4. 3 million, and a decrease in Cash Used in Financing Activities of $ 3. 0 million, $ 4. 5 million, and $ 4. 3 million. There was not a material impact on the Consolidated Statements of Cash Flows for the periods ended June 30, 2021, March 31, 2022, and June 30, 2022. The change in accounting policy did not have an incrementally material impact on the three months ended December 31, 2022 as compared to the three months ended September 30, 2022, and no impact on the Consolidated Statements of Operations for the periods listed above. The following tables present the (i) other quantitative information and (ii) future minimum payments under non- cancelable financing and operating leases as they relate to the Company’ s leases (in thousands), except for weighted averages: Years Ended December 31, 20222021Other Information Cash paid for amounts included in the measurement of lease liabilities: Operating cash flows from finance leases $ 12 $ 15 Operating cash flows from operating leases804 245 Finance cash flows from finance leases3 3 Right- of- use asset obtained in exchange for new finance lease liabilities — 245 Right- of- use asset obtained in exchange for new operating lease liabilities — 1, 611 Weighted- average remaining lease term, finance lease (months) 311317Weighted- average remaining lease term, operating leases (months) 6563Weighted- average discount rate- finance leases (1) 12 % 11 % Weighted- average discount rate- operating leases (1) 5 % 5 % (1) Our leases do not provide an implicit interest rate, and we calculate the lease liability at lease commencement as the present value of unpaid lease payments using our estimated incremental borrowing rate. The incremental borrowing rate represents the rate of interest that we would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term and is determined using a portfolio approach based on information available at the commencement date of the lease. Year Ending December 31, Operating LeasesFinancing Leases2023 $ 528 $ 88 2024305 31 2025315 25 2026324 25 2027334 25 2028 and thereafter373 538 Total2, 179 732 Less: Amounts representing present value discounts (291) (470) Total lease liabilities1, 888 262 Less: current portion (438) (79) Long- term portion $ 1, 450 $ 183 10. Inventories The following table sets forth the components of the Company’ s inventory balances (in thousands) as of: December 31, 20222021Raw materialsCorn $ — $ 301 Consumables29 186 Catalyst139 265 Finished goods SAF, isooctane and isooctene1, 457 335 Isobutanol124 223 Ethanol — 96 Work in process Isobutanol — 83 Jet fuel51 — Spare parts, net354 1, 262 Environmental attributes4, 193 — Total inventories $ 6, 347 $ 2, 751 Environmental attributes represent distinguishable and~~

~~material output from our NW Iowa RNG operations. The Company started allocating the cost of production to the sales value of RNG, credits from California' s LCFS program and RINs credits. The value of the environmental attributes is reviewed for potential write- downs based on the net realizable value methodology. During the year ended December 31, 2022 the Company adjusted its environmental attribute inventory to net realizable value and recorded a loss of $ 0. 4 million in cost of production. During the year ended December 31, 2022 and 2021, the Company adjusted its finished goods and work in process inventory to net realizable value and recorded a loss of $ 0. 8 million and $ 5. 2 million, respectively, in cost of production. 11. Property, Plant and Equipment The following table sets forth the Company' s property, plant and equipment by classification (in thousands): Useful Life (in years) December 31, 20222021Land $ 6, 452 $ 410 Plant facilities and infrastructure5 to 2076, 900 84, 117 Machinery and equipment5 to 2087, 248 25, 369 Furniture and office equipment3 to 72, 977 2, 550 Software3 to 62, 217 1, 564 Construction in progress72, 717 87, 591 Total property, plant and equipment248, 511 201, 601 Less accumulated depreciation and amortization (71, 639) (63, 859) Property, plant and equipment, net $ 176, 872 $ 137, 742 The Company recorded depreciation expenses of $ 6. 5 million and $ 4. 8 million for the years ended December 31, 2022 and 2021, respectively. At December 31, 2022, construction in progress included accruals of $ 13. 8 million. Construction in progress includes $ 25. 9 million for Gevo, $ 11. 4 million for Agri- Energy related to a fractionation and hydrocarbon skid, $ 1. 0 million for NW Iowa RNG and $ 34. 4 million for NZ1 at December 31, 2022. Construction in progress includes $ 0. 4 million for Gevo, $ 9. 1 million for Agri- Energy, $ 55. 5 million for NW Iowa RNG and $ 22. 5 million for NZ1 at December 31, 2021. Construction in progress is not subject to depreciation until the assets are placed into service. Borrowing costs. Borrowing costs directly attributable to acquisition and construction of an asset are capitalized until it is completed and ready for its intended use, and thereafter are recognized in profit or loss for the current period. The Company capitalized $ 0. 3 million and nil of interest expense for the years ended December 31, 2022, and 2021, respectively. 12. Intangible Assets On September 21, 2021, the Company entered into an asset purchase agreement with Butamax Advanced Biofuels LLC and its affiliate, Danisco US Inc. (collectively," Butamax"), pursuant to which the Company purchased all of Butamax' s rights, title and interests in certain U. S. and foreign patents and patent applications, subject to specified conditions and encumbrances, relating to the production, recovery and use of biobutanol that were owned by Butamax, for $ 9. 2 million, including $ 0. 2 million of legal fees. Management evaluated the patents to determine whether the patents (i) supported current products; (ii) supported planned research and development; or (iii) prevent others from competing with Gevo' s products. Based on the Company' s estimated purchase price allocation, approximately $ 4. 3 million of the purchase price was allocated to the purchase of patents to support current products and planned product research and $ 4. 9 million for patents purchased for defensive purposes. The patents are included in" Intangible assets" on the Consolidated Balance Sheets. Identifiable intangible assets were comprised of the following (in thousands): December 31, 2022 Gross Carrying AmountAccumulated AmortizationIdentifiable Intangible Assets, netWeighted- Average Life (Years) Patents $ 4, 580 $ (1, 039) $ 3, 541 7. 4Defensive assets4, 900 (750) 4, 150 8. 4Identifiable intangible assets $ 9, 480 $ (1, 789) $ 7, 691 7. 9 December 31, 2021 Gross Carrying AmountAccumulated AmortizationIdentifiable Intangible Assets, netWeighted- Average Life (Years) Patents $ 4, 575 $ (368) $ 4, 207 7. 3Defensive assets4, 895 (164) 4, 731 8. 4Identifiable intangible assets $ 9, 470 $ (532) $ 8, 938 7. 9 The Company recorded amortization expense of $ 1. 3 million and $ 0. 3 million for the years ended December 31, 2022 and 2021, respectively. The following table details the estimated amortization of identifiable intangible assets as of December 31, 2022 (in thousands): Year Ending December 31, PatentsDefensive AssetsTotal2023 $ 578 $ 586 $ 1, 164 2024580 588 1, 168 2025578 586 1, 164 2026578 586 1, 164 2027578 586 1, 164 2028 and thereafter649 1, 218 1, 867 Total $ 3, 541 $ 4, 150 $ 7, 691 13. Deposits and Other Assets The following table sets forth the components of the Company' s deposits and other assets (in thousands) as of: Year Ended December 31, 20222021Deposits (1) $ 276 $ 831 Prepaid feedstock (2) 934 — Equity interest (3) 1, 500 1, 500 Exclusivity fees (4) 2, 522 3, 250 Deposits receivable (5) 8, 302 — Other assets, net (6) 8, 460 7, 365 Total Deposits and Other Assets $ 21, 994 $ 12, 946 (1) Deposits for legal services and products for NZ1. (2) Prepaid feedstock fees, non- current, for the production of RNG. (3) The Company directly holds a 4. 6 % interest in the Series A Preferred Stock of Zero6 Clean Energy Assets, Inc. (" Zero6"), formerly Juhl Clean Energy Assets, Inc., which is not a publicly listed entity with a readily determinable fair value. The Company therefore measures the securities at cost, which is deemed to be the value indicated by the last observable transaction in Zero6' s stock, subject to impairment. The equity interest in Zero6 is also pledged as collateral against two future obligations to Rock County Wind Fuel, LLC (" RCWF"), a Zero6 subsidiary, see Note 19, Commitments and Contingencies, for additional information. (4) Axens North America, Inc. (" Axens") will provide certain alcohol- to- SAF technologies and services exclusively provided to the Company which may be offset against future license fees subject to the delivery of a process design package. (5) Deposits provided to a developer of certain wind- farm projects and power utility contractor to induce to design and construct the power generation, transmission and distribution facilities that will serve NZ1, $ 5. 5 million of which will be either reimbursed or used as an investment into wind generation facility and the remaining $ 2. 8 million is expected to be fully reimbursed upon completion of the project. Gevo has contractual priority liens against the equipment and constructed facilities under the contracts. (6) Payments which were allocated to the non- lease fuel supply, primarily related to sand separation systems, to support NW Iowa RNG fuel supply agreements prior to commencement of operations, being amortized over the life of the project. 14. Accounts Payable and Accrued Liabilities The following table sets forth the components of the Company' s accounts payable and accrued liabilities in the Consolidated Balance Sheets (in thousands): Year Ended December 31, 20222021Accounts payable $ 5, 009 $ 4, 830 Accrued liabilities12, 594 18, 642 Accrued payroll and related benefits5, 105 4, 678 Accrued sales and use tax2, 052 — Total accounts payable and accrued liabilities $ 24, 760 $ 28, 150 15. Debt 2021 Bond Issuance On April 15, 2021, on behalf of Gevo NW Iowa RNG, LLC, the Iowa Finance Authority (the" Authority") issued $ 68, 155, 000 of its non- recourse Solid Waste Facility Revenue Bonds (Gevo NW Iowa RNG, LLC Renewable Natural Gas Project), Series 2021 (Green Bonds) (the" 2021 Bonds") for NW Iowa RNG. The bond proceeds were used as a source of construction financing alongside equity from the Company. The bonds were issued under a Trust Indenture dated April 1, 2021~~

(the" Indenture") between the Authority and Citibank, N. A. as trustee (the" Trustee"). The 2021 Bonds mature April 1, 2042. The bonds bear interest at 1. 5 % per annum during the Initial Term Rate Period, (as defined in the Indenture), payable semi-annually on January 1 and July 1 of each year. The effective interest rate is 1. 0 %. The bonds are supported by the $ 71. 2 million Bond Letter of Credit; see Note 7, Restricted Cash. The Trustee can draw sufficient amounts on the Bond Letter of Credit to pay the principal and interest until the first mandatory tender date of April 1, 2024. The bonds are callable and re-marketable on or after October 1, 2022. If the bonds have not been called and re- marketed by the first mandatory tender date, the Trustee may draw on the Bond Letter of Credit to repay the bonds in their entirety at the purchase price. As of December 31, 2022, no amounts have been drawn under the Bond Letter of Credit. The 2021 Bonds were issued at a premium of $ 0. 8 million and debt issuance costs were $ 3. 0 million. The bond debt is classified as long- term debt and is presented net of the premium and issuance costs, which are being amortized over the life of the bonds using the interest method. As of December 31, 2022 and 2021, the premium balance and the debt issuance cost net of amortization were $ 0. 4 million, $ 0. 7 million, $ 1. 3 million and $ 2. 3 million, respectively. Loans Payable- Other In April 2020, the Company and Agri- Energy each entered into a loan agreement with Live Oak Banking Company, pursuant to which the Company and Agri- Energy obtained loans from the SBA PPP totaling $ 1. 0 million in the aggregate (the" SBA Loans"). In April 2021, the entire balance of $ 0. 5 million of the Company' s and $ 0. 1 million of Agri- Energy' s loans and accrued interest obtained through the SBA PPP were forgiven. The remaining SBA Loan for Agri- Energy totals $ 0. 3 million, bears interest at 1. 0 % per annum and matures in April 2025. Monthly payments of $ 8, 230, including interest, began on June 5, 2021 and are payable through April 2025. The SBA Loans are treated as debt on the Consolidated Balance Sheets and classified as" Loans payable – other (current)" and" Loans payable – other (long- term)". The Consolidated Statements of Operations classifies the interest as" Interest expense" and the loan forgiveness as" Gain on forgiveness of SBA Loans". The summary of the Company' s long- term debt is as follows (in thousands) as of: Year Ended December 31, Interest RateMaturity Date20222021 2021 Bonds1. 5 % January 2042 $ 67, 223 $ 66, 486 SBA Loans1. 0 % April 2025224 320 Equipment4. 0 % to5. 0 % February 2022toDecember 202494 156 Total loans payable- other67, 541 66, 962 Less current portion (159) (158) Long- term portion $ 67, 382 $ 66, 804 Future payments for the Company' s long- term debt are as follows (in thousands): Year Ending December 31, Total Debt2023 $ 159 202467, 352 202530 Total loans payable- other $ 67, 541 16. Stock- Based Compensation Equity incentive plans. In February 2011, the Company' s stockholders approved the Gevo, Inc. 2010 Stock Incentive Plan (as amended and restated to date, the" 2010 Plan") and the Employee Stock Purchase Plan. The 2010 Plan provides for the grant of non- qualified stock options, incentive stock options, stock appreciation rights, restricted stock awards, restricted stock units and other equity awards to employees and directors of the Company. In June 2021, upon approval of the shareholders at the 2021 Annual Meeting of Stockholders, the 2010 Plan was amended and restated, which increased the number of shares of common stock reserved for issuance under the 2010 Plan to 22, 980, 074 shares. At December 31, 2022, 4, 221, 225 shares were available for future issuance under the 2010 Plan. Stock- based compensation expense. The Company records stock- based compensation expense during the requisite service period for share- based payment awards granted to employees and non- employees. The following table sets forth the Company' s stock- based compensation expense for the periods indicated (in thousands): Year Ended December 31, 20222021Equity Classified AwardsCost of production $ (25) $ 43 General and administrative14, 342 5, 631 Other2, 618 2, 026 Total equity classified awards16, 935 7, 700 Liability Classified AwardsGeneral and administrative — 2, 165 Other — 9 Total liability classified awards — 2, 174 Total stock- based compensation $ 16, 935 $ 9, 874 Stock option award activity. Stock option activity under the Company' s stock incentive plans and changes during the year ended December 31, 2022 were as follows: Number of Options Weighted Average Exercise Price (1) Weighted Average Remaining Contractual Term (years) Aggregate Intrinsic ValueOptions outstanding at December 31, 20214, 746, 368 $ 5. 11 $ — Granted1, 627, 683 $ 3. 45 Canceled or forfeited (428, 730) $ 5. 49 Exercised — $ — Options outstanding at December 31, 20225, 945, 321 $ 4. 65 9. 1 $ — Options vested and expected to vest at December 31, 20221, 512, 054 $ 5. 32 8. 7 $ — (1) Exercise price of options outstanding range from $ 2. 42 to $ 11, 340 as of December 31, 2022. The higher end of the range is due to the impact of several reverse stock splits during the years 2015 to 2018, subsequent to certain option grants, and relates to awards that expire during 2023. During the year ended December 31, 2022, 1. 5 million stock options vested. As of December 31, 2022, the total unrecognized compensation expense, net of estimated forfeitures, relating to stock options was $ 13. 5 million, which is expected to be recognized over the remaining weighted- average period of approximately 2. 4 years. The following table sets forth the weighted average Black- Scholes option pricing model assumptions (no dividends were expected) and resulting grant date fair value for the stock options granted during the years ended December 31, 2022 and 2021: Year Ended December 31, 20222021Risk- free interest rate2. 90 % 0. 92 % Expected volatility factor134 % 141 % Expected option life (years) 6. 05. 9Weighted- average fair value $ 2. 18 $ 4. 59 There is a maximum contractual term of ten years for the share options. The Company settles stock option exercises with newly issued common shares. No tax benefits were realized by the Company in connection with these exercises as the Company maintains net operating loss carryforwards and has established a valuation allowance against the entire tax benefit. Restricted Stock. The Company periodically grants restricted stock awards to employees and directors. The vesting period for restricted stock awards granted may be based upon a service period or based upon the attainment of performance objectives. The Company recognizes stock- based compensation over the vesting period, generally two to three years, for awards that vest based upon a service period. Non- vested restricted stock awards at December 31, 2022 and changes during the year ended December 31, 2022 were as follows: Number of SharesWeighted- Average Grant- Date Fair ValueNon- vested at December 31, 20216, 882, 502 $ 3. 77 Granted2, 360, 605 $ 2. 57 Vested (3, 561, 879) $ 2. 86 Canceled or forfeited (426, 771) $ 4. 83 Non- vested at December 31, 20225, 254, 457 $ 3. 94 The total fair value of restricted stock that vested during the years ended December 31, 2022 and 2021 was $ 10. 2 million and $ 2. 8 million, respectively. As of December 31, 2022, the total unrecognized compensation expense, net of estimated forfeitures, relating to restricted stock awards was $ 16. 7 million, which is expected to be recognized over the remaining weighted- average period of approximately

~~2. 3 years. As of December 31, 2022, there are no unvested liability- classified restricted stock awards. 17. Income Taxes As of December 31, 2022, the Company has a federal and state net operating loss (“ NOL ”) carryover of approximately $ 170. 6 million and $ 90. 4 million, respectively, available to offset future income for income tax reporting purposes. Of our federal net operating carryovers, $ 1. 4 million would expire between the years 2025- 2037 and $ 50. 4 million for state, which would expire between the years 2027- 2042. The Company’ s ability to use the carryover net operating loss may be substantially limited or eliminated pursuant to Internal Revenue Code Section 382. A limitation may apply to the use of the net operation loss and credit carryforwards, under provisions of the Internal Revenue Code that are applicable if we experience an “ ownership change ”. That may occur, for example, as a result of trading in our stock by significant investors as well as issuance of new equity. Should these limitations apply, the carryforwards would be subject to an annual limitation resulting in a substantial reduction in the gross deferred tax asset. We periodically evaluate our NOL carryforwards and whether certain changes in ownership have occurred that would limit our ability to utilize a portion of our NOL and tax credit carryforwards. We have evaluated whether we experienced an ownership change, as defined under Section 382, and determined that an ownership change did occur as of July 9, 2020 and January 22, 2021. NOL carryovers of approximately $ 66. 2 million subject to the July 9, 2020 ownership change date are subject to a base $ 0. 1 million annual limitation for each year following said ownership change. The Company will be able to utilize the annual limitation of the NOL carryforwards to offset future taxable incomes. NOL carryovers of approximately $ 17. 9 million that occurred between the July 9, 2020 and January 22, 2021 ownership change dates are subject to a base $ 11. 9 million annual limitation for each year following said ownership change. The following table sets forth the tax effects of temporary differences that give rise to significant portions of the Company’ s net deferred tax assets (in thousands): December 31, 20222021Deferred tax assets, net: Net operating loss carryforwards $ 40, 511 $ 29, 398 Operating lease assets (371) (1, 405) Operating lease liabilities410 1, 489 Depreciation9, 145 3, 840 Stock compensation2, 027 1, 146 Business interest expense1, 033 1, 165 Capitalized research cost3, 334 — Other temporary differences691 886 Deferred tax assets56, 780 36, 519 Valuation allowance (56, 780) (36, 519) Net deferred tax assets $ — $ — The Company had a change in accounting principle (discussed in Note 9 above) effective as of December 31, 2022, resulting in the de- election of the practical expedient to combine lease and non- lease components under ASC 842. The company has adjusted the December 31, 2021 balance to reflect the modified retrospective treatment the deferred tax table has been updated to reflect the modified retrospective treatment. To reflect the update, the Company reduced the operating lease asset deferred tax liability by $ 6. 5 million, a reduction to the operating lease liability deferred tax asset of $ 6. 6 million, and an increase in the net operating loss deferred tax asset of $ 0. 1 million. Beginning in 2022, the Tax Cuts and Jobs Act of 2017 eliminated the option to deduct research and development expenditures in the current year and requires taxpayers to amortize them over five years pursuant to IRC Section 174. The mandatory capitalization requirement increases the deferred tax asset for Capitalized Research Costs by $ 3. 3 million for the year ended December 31, 2022. ASC 740, Income Taxes, provides for the recognition of deferred tax assets if realization of such assets is more likely than not to occur. Based on management’ s review of both the positive and negative evidence, which includes our historical operating performance, reported cumulative net losses since inception and difficulty in accurately forecasting results, we have concluded that it is not more likely than not that we will be able to realize all of our U. S. deferred tax assets. Therefore, we have provided a full valuation allowance against deferred tax assets at December 31, 2022 and 2021, respectively. The following table sets forth reconciling items from income tax computed at the statutory federal rate: Year Ended December 31, 20222021Federal income tax at statutory rate21. 0 % 21. 0 % State income taxes, net of federal benefits1. 6 % 3. 8 % Permanent deductions (2. 2) % 0. 3 % Valuation allowance (20. 4) % (25. 2) % Effective tax rate — % — % Accounting literature regarding liabilities for unrecognized tax benefits provides guidance for the recognition and measurement in financial statements of uncertain tax positions taken or expected to be taken in a tax return. The Company’ s evaluation was performed for the tax periods from inception to December 31, 2022. The Company is subject to examination by major tax jurisdictions for the years ended December 31, 2016 to 2022. The Company recognizes uncertain tax positions net, against any operating losses or applicable research credits as they arise. Currently, there are no uncertain tax positions recognized at December 31, 2022 and 2021, respectively. On August 16, 2022, the Inflation Reduction Act of 2022 (“ IRA ”) was enacted into law and is effective for taxable years beginning after December 31, 2022. The IRA includes multiple incentives to promote clean energy and remains subject to additional guidance releases. While the clean energy provisions in the IRA are expected to have a material impact on the Company, there are no significant current tax expense impacts with the newly enacted law during the year ended December 31, 2022. 18. Employee Benefit Plan The Company sponsors the Gevo, Inc. 401 (k) Plan (the" 401 (k) Plan") under Section 401 (k) of the Internal Revenue Code. Subject to certain eligibility requirements, the 401 (k) Plan covers substantially all employees beginning the month after employment. Employee contributions are deposited by the Company into the 401 (k) Plan and may not exceed the maximum statutory contribution amount. The Company may make matching and / or discretionary contributions to the 401 (k) Plan. The Company did not provide an employer match during the years ended December 31, 2022 and 2021. Beginning January 1, 2023, the 401 (k) Plan was amended to require matching contributions to the 401 (k) Plan by the Company on behalf of the participants, with the Company matching 100 percent up to three percent, and an additional 50 percent on up to two percent of an employee' s elective contributions, computed on a per pay period basis. The matching contributions will be made in shares of the Company' s common stock and vest immediately. 19. Commitments and Contingencies Legal Matters. From time to time, the Company has been and may again become involved in legal proceedings arising in the ordinary course of its business. The Company is not presently a party to any litigation and is not aware of any pending or threatened litigation against the Company that it believes could have a material adverse effect on its business, operating results, financial condition or cash flows. Indemnifications. In the ordinary course of its business, the Company makes certain indemnities under which it may be required to make payments in relation to certain transactions. As of December 31, 2022 and 2021, the Company did not have any liabilities associated with indemnities. In addition, the Company indemnifies its officers and directors for certain events or occurrences, subject to certain limitations. The~~

~~duration of these indemnifications, commitments, and guarantees varies and, in certain cases, is indefinite. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that may enable it to recover a portion of any future amounts paid. The Company accrues losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable. No such losses have been recorded to 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, 2022. Fuel Supply Commitment. The Company has three long- term fuel supply contracts to source feedstock for the anaerobic digesters at the NW Iowa RNG project. These contracts provide an annual amount of feedstock to be used in the production of RNG. Praj Commitment. In June 2021 the Company contracted with a manufacturer in India to build a fractionation and hydrocarbon skid for $ 10. 2 million. The remaining commitment for the contract is $ 3. 6 million as of December 31, 2022, which is expected to be completed in 2023. Zero6 Commitments. In September 2022, the Company entered into a development agreement with Zero6 to construct and operate a wind project for the provision of electric energy for NZ1. Pursuant to the agreement, the Company has committed to pay Zero6 total development charges of $ 8. 6 million, comprised of advanced development fee payments of $ 0. 9 million, certain reimbursable costs of $ 1. 2 million, and $ 6. 5 million upon completion of the project. The Company is not contractually obligated for the specified development charges until certain milestones are met in future periods, and upon completion of the project. Additionally, the Company' s investment in Zero6, see Note 13 above, is pledged separately as collateral for two commitments for the purchase of wind electricity for the Luverne Facility, as well as the purchase of 100 % of RCWF' s renewable energy credits. Gevo has a commitment to purchase all of RCWF' s electricity. The portion not used by the Luverne Facility is charged to the Company at a lower price. The estimated commitments as of December 31, 2022, and thereafter are shown below (in thousands): December 31, Total20232024202520262027 2028 and thereafterFuel Supply Payments $ 3, 744 $ 2, 408 $ 1, 702 $ 1, 718 $ 1, 736 $ 28, 263 $ 39, 571 Zero6 Commitment250 350 6, 776 — — — 7, 376 Praj Commitment3, 600 — — — — — 3, 600 Renewable Energy Credits148 148 148 149 148 1, 831 2, 572 Electricity Above Use (Est.) 250 263 275 287 300 4, 798 6, 173 Total $ 7, 992 $ 3, 169 $ 8, 901 $ 2, 154 $ 2, 184 $ 34, 892 $ 59, 292 20. Fair Value Measurements Accounting standards define fair value, outline a framework for measuring fair value, and detail the required disclosures about fair value measurements. 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. The carrying value and fair value, by fair value hierarchy, of the Company' s financial instruments at December 31, 2022 and 2021 are as follows (in thousands): Fair Value Measurements at December 31, 2022 Fair Value at December 31, 2022QuotedPrices inActiveMarkets forIdenticalAssets (Level 1) SignificantOtherObservableInputs (Level 2) SignificantUnobservableInputs (Level 3) Recurring Marketable securities U. S. Treasury notes $ 56, 074 $ 56, 074 $ — $ — U. S. Government sponsored enterprise securities111, 334 111, 334 — — Total recurring $ 167, 408 $ 167, 408 $ — $ — Fair Value Measurements at December 31, 2021 Fair Value at December 31, 2021QuotedPrices inActiveMarkets forIdenticalAssets (Level 1) SignificantOtherObservableInputs (Level 2) SignificantUnobservableInputs (Level 3) RecurringMarketable securitiesU. S. Treasury notes $ 225, 792 $ 225, 792 $ — $ — U. S. Government sponsored enterprise securities113, 944 113, 944 — — OtherLiability- classified restricted stock awards702 702 — — Total recurring $ 340, 438 $ 340, 438 $ — $ — The Company had no transfers of assets or liabilities between fair value hierarchy levels during the years ended December 31, 2022 and 2021. For the 2021 Bonds, the fair values are estimated using the Black- Derman- Toy interest rate lattice framework. The effective maturity of the 2021 Bonds was assumed to be April 1, 2024 (three years from issuance) with repayment of 100 % of principal on that date. The impact of the Company' s optional redemption feature, effective October 1, 2022, is appropriately captured by the Black- Derman- Toy interest rate lattice. The carrying values and estimated fair values of the 2021 Bonds as of December 31, 2022 are summarized as follows (in thousands): Carrying ValueEstimated Fair Value2021 Bonds $ 67, 223 $ 65, 438 21. Shareholders' Equity Share Issuances In February 2018, the Company commenced an at- the- market offering program, which allows it to sell and issue shares of its common stock from time to time. In 2021, the at- the- market offering program was amended to provide a total capacity of $ 500. 0 million. During the year ended December 31, 2021, the Company issued 24, 420, 579 shares of common stock under the at- the- market offering program for total proceeds of $ 135. 8 million, net of commissions and other offering related expenses totaling $ 3. 6 million. As of December 31, 2022, the Company has remaining capacity to issue up to approximately $ 360. 6 million of common stock under the at- the- market offering program. On January 19, 2021, the Company completed a registered direct offering pursuant to a securities purchase agreement with certain institutional and accredited investors providing for the issuance and sale by the Company of an aggregate of 43, 750, 000 shares of the Company' s common stock at a price of $ 8. 00 per share (the" January 2021 Offering"). The net proceeds to the Company from the January 2021 Offering were approximately $ 321. 7 million, after deducting placement agent fees and other estimated offering expenses payable by the Company. On June~~

~~8, 2022, the Company completed a registered direct offering (" the June 2022 Offering") of an aggregate of 33, 333, 336 shares of the Company' s common stock at a price of $ 4. 50 per share, accompanied by Series 2022- A warrants to purchase an aggregate of 33, 333, 336 shares of the Company' s common stock (each, a " Series 2022- A Warrant ") pursuant to a securities purchase agreement with certain institutional and accredited investors. The Series 2022- A Warrants are exercisable for a term of five years from the date of issuance at an exercise price of $ 4. 37 per share. As of December 31, 2022, none of the Series 2022- A Warrants had been exercised. The net proceeds to the Company from the June 2022 Offering were $ 139. 2 million, after deducting placement agent' s fees, advisory fees and other offering expenses payable by the Company, and assuming none of the Series 2022- A Warrants issued in the June 2022 Offering are exercised for cash. The Company intends to use the net proceeds from the June 2022 Offering to fund capital projects, working capital and for general corporate purposes. In addition to the Series 2022- A Warrants, the Company has warrants outstanding that were issued in conjunction with a registered direct offering in August 2020 (the " Series 2020- A Warrants "). The Company evaluated the Series 2022- A Warrants and Series 2020- A Warrants for liability or equity classification and determined that equity treatment was appropriate because both the Series 2022- A Warrants and Series 2020- A Warrants do not meet the definition of liability instruments. During the year ended December 31, 2021, the Company received notices of exercise from holders of our Series 2020- A Warrants to issue an aggregate of 1, 866, 558 shares of common stock for total gross proceeds of approximately $ 1. 1 million. As of December 31, 2022, there were 85, 931 Series 2020- A Warrants outstanding. The Series 2022- A Warrants and Series 2020- A Warrants are classified as a component of equity because they are freestanding financial instruments that are legally detachable and separately exercisable from the shares of common stock with which they were issued, are immediately exercisable and will expire five years from the date of issuance, do not embody an obligation for the Company to repurchase its shares, and permit the holders to receive a fixed number of shares of common stock upon exercise. In addition, the Series 2022- A Warrants and Series 2020- A Warrants do not provide any guarantee of value or return. The Company valued the Series 2022- A Warrants and Series 2020- A Warrants at issuance using the Black- Scholes option pricing model. The fair value at the issuance date of the Series 2022- A Warrants was $ 92. 9 million with the key inputs to the valuation model including a weighted average volatility of 151. 1 %, a risk- free rate of 2. 86 % and an expected term of five years. The fair value at the issuance date of the Series 2020- A Warrants was $ 8. 3 million with the key inputs to the valuation model including a weighted average volatility of 130 %, a risk- free rate of 0. 30 % and an expected term of five years. 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. On February 17, 2022, the remaining Series K warrants expired with 7, 126 unexercised warrants. The following table sets forth information pertaining to shares issued upon the exercise of warrants: Issuance DateExpiration DateExercise Price as of December 31, 2022Shares Underlying Warrants on Issuance DateShares Issued upon Warrant Exercises as of December 31, 2022Shares Underlying Warrants Outstanding as of December 31, 2022Series 2020- A Warrants (1) 7 / 6 / 20207 / 6 / 2025 $ 0. 60 30, 000, 000 29, 914, 069 85, 931 Series 2022- A Warrants (1) 6 / 8 / 20226 / 7 / 2027 $ 4. 37 33, 333, 336 — 33, 333, 336 Total Warrants63, 333, 336 29, 914, 069 33, 419, 267 (1) Equity- classified warrants. During the year ended December 31, 2022, common stock was issued as a result of the exercise of warrants as shown below (dollars in thousands): Common Stock IssuedProceedsSeries 2020- A Warrants4, 677 $ 3 22. Segments Operating segments are defined as components of an entity for which discrete financial information is available that is regularly reviewed by the Chief Operating Decision Maker (" CODM ") in deciding how to allocate resources to an individual segment and in assessing performance. The Company' s Chief Executive Officer is the CODM. The CODM reviews financial information presented on a consolidated basis for purposes of making operating decisions, allocating resources, and evaluating financial performance. As such, management has determined that the Company has organized its operations and activities into three reportable segments: (i) Gevo segment; (ii) Agri- Energy segment; (iii) Renewable Natural Gas segment. Transactions between segments are eliminated in consolidation. Gevo segment. The Gevo segment is responsible for all research and development activities related to the future production of SAF, commercial opportunities for other renewable hydrocarbon products, such as hydrocarbons for gasoline blendstocks and diesel fuel; ingredients for the chemical industry, such as ethylene and butenes; plastics and materials; and other chemicals. The Gevo segment also develops, maintains and protects its intellectual property portfolio, provides corporate oversight services, and is responsible for development and construction of our Net- Zero Projects. Agri- Energy segment. The Agri- Energy segment is currently responsible for the operation of the Company' s Luverne Facility, and the development and optimization of the production of isobutanol, ethanol and related products. Renewable Natural Gas segment. The Renewable Natural Gas segment produces- pipeline quality methane gas captured from dairy cow manure. Year Ended December 31, 2022 GevoAgri- EnergyRenewable Natural GasConsolidatedRevenues from external customers $ 81 $ 240 $ 854 $ 1, 175 Loss from operations $ (58, 427) $ (40, 171) $ (4, 088) $ (102, 686) Acquisitions of licenses, patents, plant, property and equipment $ 47, 647 $ 4, 091 $ 27, 126 $ 78, 864 Year Ended December 31, 2021 GevoAgri- EnergyRenewable Natural GasConsolidatedRevenues from external customers $ 483 $ 50 $ — $ 533 Loss from operations $ (42, 332) $ (16, 783) $ (1, 153) $ (60, 268) Acquisitions of licenses, patents, plant, property and equipment $ 36, 595 $ 5, 716 $ 52, 470 $ 94, 781 December 31, 2022GevoAgri- EnergyRenewable Natural GasConsolidatedTotal assets $ 573, 057 $ 34, 440 $ 93, 251 $ 700, 748 December 31, 2021GevoAgri- EnergyRenewable Natural GasConsolidatedTotal assets $ 484, 528 $ 64, 008 $ 96, 845 $ 645, 381 23. Subsequent Events On February 14, 2023, the Company entered into a Hydrogen Development Services Agreement with Zero6, to develop and construct a hydrogen gas production facility for the provision of electric energy for NZ1. Pursuant to the agreement in 2023, the Company made an initial payment of $ 10. 7 million to procure the required equipment, with the payment being either reimbursed upon completion of the project or used as an investment into the power generation facility. Gevo has contractual priority liens against the equipment and constructed facilities under the contract. Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure Item 9A. Controls and Procedures Evaluation of~~

~~Disclosure Controls and Procedures We maintain disclosure controls and procedures, as such term is defined in Rules 13a- 15 (e) and 15d- 15 (e) under the Exchange Act, that are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and regulations, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Principal Financial Officer, as appropriate, to allow timely decisions regarding required financial disclosures. In designing and evaluating the disclosure controls and procedures, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and management is required to apply its judgment in evaluating the cost- benefit relationship of possible controls and procedures. Based on their evaluation, our Chief Executive Officer and our Chief Financial Officer concluded that our disclosure controls and procedures were effective as of December 31, 2022. Management' s Report on Internal Control over Financial Reporting Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a- 15 (f) and 15d- 15 (f) of the Exchange Act. Our internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of our assets that could have a material effect on our financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate. Under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework set forth in Internal Control — Integrated Framework (2013 framework) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon the results of the evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2022. Changes in Internal Control Over Financial Reporting There were no changes in our internal control over financial reporting during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. Item 9B. Other Information PART III Item 10. Directors, Executive Officers and Corporate Governance The information required by this item is incorporated by reference to our definitive proxy statement for the 2023 annual meeting of stockholders to be filed with the SEC within 120 days after our fiscal year ended December 31, 2022. We have a written code of business conduct and ethics in place that applies to all of our directors, officers and employees, including our principal executive officer, principal financial officer, and principal accounting officer. A copy of our code of ethics is available on our website: https: / / investors. gevo. com / corporate / corporate- governance /. We are required to disclose certain changes to, or waivers from, that code for our senior financial officers. We intend to use our website as a method of disseminating any change to, or waiver from, our code of ethics as permitted by applicable SEC rules. Item 11. Executive Compensation Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters Item 13. Certain Relationships and Related Transactions, and Director Independence Item 14. Principal Accountant Fees and Services PART IV Item 15. Exhibits, Financial Statement Schedules (a) (1) Financial Statements The following Consolidated Financial Statements are included: PageReport of Independent Registered Public Accounting Firm48Consolidated Balance Sheets49Consolidated Statements of Operations50Consolidated Statements of Comprehensive Income (Loss) 51Consolidated Statements of Stockholders' Equity52Consolidated Statements of Cash Flows53Notes to Consolidated Financial Statements55 (a) (2) Financial Statement Schedules All financial statement schedules have been omitted because they are not applicable or are not required, or because the information required to be set forth therein is included in the Consolidated Financial Statements or notes thereto. (a) (3) Exhibits Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith 3. 1Amended and Restated Certificate of Incorporation of Gevo, Inc. 10- K001- 35073February 24, 20223. 1 3. 2Second Amended and Restated Bylaws of Gevo, Inc. 8- K001- 35073November 24, 20213. 1 4. 1Form of Gevo, Inc. Common Stock Certificate. S- 1333- 168792January 19, 20114. 1 4. 2Form of Series 2020- A Warrant. 8- K001- 35073July 8, 20204. 1 4. 3Form of Series 2022- A Warrant. 8- K001- 35073June 8 20224. 1 4. 4Description of Securities. 10- K001- 35073February 24, 20224. 3 10. 1 † License Agreement, dated July 12, 2005, by and between Gevo, Inc. and the California Institute of Technology. S- 1333- 168792November 4, 201010. 6 10. 2 † Amendment No. 4, dated October 1, 2010, to the License Agreement, by and between Gevo, Inc. and the California Institute of Technology, dated July 12, 2005. S- 1333- 168792October 21, 201010. 10 10. 3 # Gevo, Inc. Amended and Restated 2010 Stock Incentive Plan. 8- K001- 35073June 11, 202110. 1 10. 4 # Form of Restricted Stock Unit Agreement under the Amended and Restated 2010 Stock Incentive Plan. S- 1333- 168792January 19, 201110. 15 10. 5 # Form of Restricted Shares Award Agreement under the Amended and Restated 2010 Stock Incentive Plan. 10- Q001- 35073August 8, 201810. 7 10. 6 # Form of Stock Option Award Agreement under the Amended and Restated 2010 Stock Incentive Plan. 10- Q001- 35073August 8, 201810. 6 10. 7 # Form of Stock Appreciation Rights Award Agreement under the Amended and Restated 2010 Stock Incentive Plan. 10- Q001- 35073August 8, 201810. 8 Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith10. 8 # Gevo, Inc. Employee Stock Purchase Plan. S- 8333- 172771March 11, 20114. 710. 9 # Gevo, Inc. Executive Health Management Plan. 10- Q001- 35073November 2, 201110. 110. 10 # Form of Indemnification Agreement between Gevo, Inc. and its directors and officers. S- 1333- 168792January 19, 201110. 3310. 11 # Employment Agreement, dated June 4, 2010, by~~

~~and between Gevo, Inc. and Patrick Gruber. S- 1333- 168792November 4, 201010. 1410. 12 # Amendment Agreement, dated December 21, 2011, by and between Gevo, Inc. and Patrick Gruber. 8- K001- 35073December 27, 201110. 110. 13 # Second Amendment Agreement, dated February 16, 2015, by and between Gevo, Inc. and Patrick Gruber. 8- K001- 35073February 17, 201510. 110. 14 # Employment Agreement, dated June 4, 2010, by and between Gevo, Inc. and Christopher Ryan. S- 1333- 168792November 4, 201010. 1610. 15 # Offer of Employment Letter, dated December 21, 2015, by and between Gevo, Inc. and Geoffrey T. Williams, Jr. 10- Q001- 35073May 9, 201710. 110. 16 # Change of Control Agreement for Geoffrey T. Williams, Jr., dated February 18, 2016. 10- Q001- 35073May 9, 201710. 210. 17 # Offer Letter, dated November 9, 2019, by and between Gevo, Inc. and L. Lynn Smull. 8- K001- 35073November 15, 201910. 110. 18 # Offer Letter dated February 22, 2018 by and between Gevo, Inc. and Timothy J. Cesarek10- Q001- 35073May 13, 202010. 110. 19 # Offer Letter, dated February 16, 2021, by and between Gevo Inc. and Paul Bloom. 10- Q001- 35073May 14, 202110. 6 Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith10. 20 † Fuel Sales Agreement, dated October 28, 2019, by and between Gevo, Inc. and Scandinavian Airlines System. 8- K001- 35073February 22, 202110. 110. 21 † Amendment No. 1 to Fuel Sales Agreement, dated February 16, 2021, by and between Gevo, Inc. and Scandinavian Airlines System. 8- K001- 35073February 22, 202110. 210. 22 † At- The- Market Offering Agreement, dated February 13, 2018, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073February 13, 20181. 1 10. 23Amendment to At- The- Market Offering Agreement and Engagement Agreement, dated June 20, 2018, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073June 20, 20181. 2 10. 24 † Amendment to At- The- Market Offering Agreement, dated June 25, 2018, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073June 25, 20181. 3 10. 25Amendment to At- The- Market Offering Agreement and Engagement Agreement, dated June 28, 2018, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073June 28, 20181. 4 10. 26Amendment to At- The- Market Offering Agreement and Engagement Agreement, dated August 15, 2019, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073August 15, 2019 1. 5 10. 27Amendment to At- The- Market Offering Agreement, dated December 30, 2020, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073December 30, 202010. 1 10. 28Amendment to At- The- Market Offering Agreement, dated September 9, 2021, between Gevo, Inc. and H. C. Wainwright & Co., LLC. 8- K001- 35073September 9, 202110. 1 10. 29 Master Framework Agreement, dated August 13, 2020, by and between Gevo, Inc. and Praj Industries Ltd. 8- K001- 35073August 18, 202010. 1 Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith10. 30 Renewable Hydrocarbons Purchase and Sale Agreement, dated August 14, 2020, by and between Gevo, Inc. and Trafigura Trading LLC. 8- K001- 35073August 20, 202010. 110. 31 Base Contract for Sale and Purchase of Natural Gas, dated July 22, 2021, by and between Gevo NW Iowa RNG, LLC, BP Canada Energy Marketing Corp. and BP Products North America Inc. 8- K001- 35073August 9, 202110. 110. 32 Special Provisions Attached to and Forming Part of the Base Contract for Sale and Purchase of Natural Gas dated July 22, 2021, by and between Gevo NW Iowa RNG, LLC, BP Canada Energy Marketing Corp. and BP Products North America Inc. 8- K001- 35073August 9, 202110. 210. 33 Biogas Supply Addendum – Vehicle Fuel Segment- Supply Side, dated July 22, 2021, by and between Gevo NW Iowa RNG, LLC, BP Canada Energy Marketing Corp. and BP Products North America Inc. 8- K001- 35073August 9, 202110. 310. 34 Transaction Confirmation relating to the Base Contract, by and between Gevo NW Iowa RNG, LLC and BP Canada Energy Marketing Corp. 8- K001- 35073August 9, 202110. 410. 35 † † Asset Purchase Agreement, date September 21, 2021, between Butamax Advanced Biofuels LLC and Danisco US Inc., and Gevo, Inc. 8- K001- 35073September 23, 202110. 110. 36Amendment No. 1 to Renewable Hydrocarbons Purchase and Sale Agreement, date August 14, 2020, between Gevo, Inc. and Trafigura Trading LLC8- K001- 35073October 6, 202110. 210. 37 Fuel Supply Agreement, dated December 2, 2021, by and between Gevo, Inc. and Kolmar Americas, Inc. 8- K001- 35073December 7, 202110. 1 Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith10. 38Bond Financing Agreement, dated as of April 1, 2021, by and between Gevo NW Iowa RNG, LLC and the Iowa Finance Authority. 8- K001- 35073April 15, 202110. 110. 39 Letter of Credit Reimbursement Agreement, dated as of April 1, 2021, by and between Gevo, Inc. and Citibank, N. A. 8- K001- 35073April 15, 202110. 210. 40 Fuel Supply Agreement, dated March 16, 2022, by and between Gevo, Inc. and Delta Air Lines, Inc. 8- K001- 35073March 22, 202210. 110. 41 Fuel Supply Agreement, dated March 18, 2022, by and between Gevo, Inc. and British Airways plc. 8- K001- 35073March 21, 202210. 110. 42 Fuel Supply Agreement, dated July 18, 2022, by and between Gevo, Inc. and American Airlines, Inc. 8- K001- 35073July 22, 202210. 110. 43 First Amended and Restated Transaction Confirmation, by and between Gevo NW Iowa RNG, LLC BP Canada Energy Marketing Corp, and BP Products North America Inc. 10- Q001- 35073August 8, 202210. 210. 44 # Gevo, Inc. Change in Control Severance Plan8- K001- 35073December 2, 202210. 118. 1Preferability letter of independent registered public accounting firm. X21. 1List of Subsidiaries. X23. 1Consent of Grant Thornton LLP. X31. 1Section 302 Certification of the Principal Executive Officer. X31. 2Section 302 Certification of the Principal Financial Officer. X32. 1 * Section 906 Certifications of the Principal Executive Officer and the Principal Financial Officer. X * 101. INSInline XBRL Instance Document (the Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document) X Incorporated by Reference ExhibitNo. DescriptionFormFile No. Filing DateExhibitFiledHerewith101. SCHInline XBRL Taxonomy Extension SchemaX 101. CALInline XBRL Taxonomy Extension Calculation LinkbaseX 101. DEFInline XBRL Taxonomy Extension Definition LinkbaseX 01. LABInline XBRL Taxonomy Extension Label LinkbaseX 101. PREInline XBRL Taxonomy Extension Presentation LinkbaseX 104Cover Page Interactive Data File (embedded within the Inline XBRL and contained in Exhibit 101) † Certain portions have been omitted pursuant to a confidential treatment request. Omitted information has been filed separately with the SEC. Certain portions of the exhibit have been omitted pursuant to Rule 601 (b) (10) of Regulation S- K. The omitted information is (i) not material and (ii) would likely cause competitive harm to the Company if publicly disclosed. Confidential portions of the exhibit have been redacted from the filed version of the exhibit and are marked with a * * * † † Schedules have been omitted pursuant to Item 601 (a) (5) of Regulation S- K. The Company hereby undertakes to supplementally furnish copies of any omitted schedules to the Securities and Exchange Commission upon request. # Indicates a~~

management contract or compensatory plan or arrangement. * Furnished herewith (b) Exhibits See Item 15 (a) (3) above. (c) Financial Statement Schedules See Item 15 (a) (2) above. Item 16. Form 10- K Summary SIGNATURES Pursuant to the requirements of Section 13 or 15 (d) of the Securities Exchange Act of 1934, the registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized. Gevo, Inc. (REGISTRANT) By: / s / Alisher Nurmat Alisher Nurmat, CPAVice President and Controller (Principal Accounting Officer) Date: March 9, 2023 Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated: SignaturesTitleDate / s / PATRICK R. GRUBERChief Executive Officer (Principal Executive Officer) and DirectorMarch 9, 2023Patrick R. Gruber, Ph. D. / s / L. LYNN SMULLChief Financial Officer (Principal Financial Officer) March 9, 2023L. Lynn Smull / s / ALISHER NURMATVice President and Controller (Principal Accounting Officer) March 9, 2023Alisher Nurmat, CPA / s / WILLIAM H. BAUMChairperson of the Board of DirectorsMarch 9, 2023William H. Baum / s / RUTH I. DREESSENDirectorMarch 9, 2023Ruth I. Dreessen / s / GARY W. MIZEDirectorMarch 9, 2023Gary W. Mize / s / ANDREW J. MARSHDirectorMarch 9, 2023Andrew J. Marsh / s / JAIME GUILLENDirectorMarch 9, 2023Jaime Guillen / s / CAROL J. BATTERSHELLDirectorMarch 9, 2023Carol J. Battershell Exhibit 18. 1 345 Inverness Drive South, Building C, Suite 310 Englewood, Colorado 80012 Dear Directors: We are providing this letter solely for inclusion as an exhibit to Gevo, Inc. (the " Company ") Form 10- K filing pursuant to Item 601 of Regulation S- K. We have audited the consolidated financial statements included in the Company' s Annual Report on Form 10- K for the year ended December 31, 2022, as set forth in our report dated March 9, 2023. As stated in Note 9 to those financial statements, the Company changed its accounting policy covering the application of the practical expedient to not separate the lease and non- lease components of lease agreements under ASC 842, Leases. Under the new accounting policy, the Company will not elect the practical expedient and will account for lease components separately from non- lease components for the Company' s dairy lease asset class. Note 9 also states management' s belief that the newly adopted accounting principle is preferable in the circumstances because it provides the most useful and transparent financial With regard to the aforementioned accounting change, it should be understood that authoritative criteria have not been established for evaluating the preferability of one acceptable method of accounting over another acceptable method and, in expressing our concurrence below, we have relied on management' s business planning and judgment and on management' s determination that this change in accounting principle is preferable. Based on our reading of management' s stated reasons and justification for this change in accounting principle in the Form 10- K, and our discussions with management as to their judgment about the relevant business planning factors relating to the change, we concur with management that the newly adopted method of accounting is preferable in the Company' s circumstances. Sincerely, Exhibit 21. 1 Subsidiaries of Gevo, Inc. Name of SubsidiaryJurisdictionGevo Asset, LLC (fka Gevo Development, LLC) DelawareGevo RNG Holdco, LLCDelawareGevo NW Iowa RNG, LLCDelawareAgri- Energy, LLCMinnesotaGevo Net- Zero Holdco, LLCDelawareGevo Net- Zero 1, LLCDelaware Exhibit 23. 1 CONSENT OF INDEPENDENT CERTIFIED PUBLIC ACCOUNTANTS We have issued our report dated March 9, 2023, with respect to the consolidated financial statements included in the Annual Report of Gevo, Inc. on Form 10- K for the year ended December 31, 2022. We consent to the incorporation by reference of said report in the Registration Statements of Gevo, Inc. on Forms S- 8 (File No. 333- 172771, 333- 195264, 333- 207172, 333- 212391, 333- 226689, 333- 232267, and 333- 239275, 333- 257971) and on Forms S- 3 (File No. 333- 252229 and File No. 333- 226686). Exhibit 31. 1 CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER I, Patrick R. Gruber, certify that: 1. I have reviewed this Annual Report on Form 10- K of Gevo, Inc.; 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report; 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report; 4. The registrant' s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a- 15 (e) and 15d- 15 (e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a- 15 (f) and 15d- 15 (f)) for the registrant and have: a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared; b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles; c) Evaluated the effectiveness of the registrant' s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and d) Disclosed in this report any change in the registrant' s internal control over financial reporting that occurred during the registrant' s most recent fiscal quarter (the registrant' s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant' s internal control over financial reporting; and 5. The registrant' s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant' s auditors and the audit committee of the registrant' s board of directors (or persons performing the equivalent functions): a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant' s ability to record, process, summarize and report financial information; and b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant' s internal control over financial reporting. / s / Patrick R. GruberPatrick R. GruberChief Executive Officer (Principal Executive Officer) Exhibit 31. 2 CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER I, L. Lynn Smull, certify that: / s / L. Lynn SmullL. Lynn SmullChief Financial Officer (Principal Financial Officer)

~~Exhibit 32. 1 CERTIFICATIONS PURSUANT TO SECTION 906 OF THE SARBANES- OXLEY ACT OF 2002 (18 U. S. C. SECTION 1350) I, Patrick R. Gruber, Chief Executive Officer of Gevo, Inc. (the " Company "), and I, Lynn Smull, Chief Financial Officer of the Company, certify, pursuant to 18 U. S. C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes- Oxley Act of 2002, that: (1) The Annual Report on Form 10- K of the Company for the year ended December 31, 2021, (the " Report ") fully complies with the requirements of Section 13 (a) or 15 (d) of the Securities Exchange Act of 1934, as amended; and (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the period covered by the Report. / s / Patrick R. GruberPatrick R. GruberChief Executive Officer (Principal Executive Officer) Date: March 9, 2023 / s / L. Lynn SmullL. Lynn SmullChief Financial Officer (Principal Financial Officer) Date: March 9, 2023~~