

Risk Factors Comparison 2025-03-27 to 2024-03-07 Form: 10-K

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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 have a history of net losses, and we may not achieve or maintain profitability. We incurred net losses of \$ **82.6 million and \$ 66.2 million** and ~~\$ 98.0 million~~ during the years ended December 31, **2024 and 2023** and ~~2022~~, respectively. As of December 31, ~~2023~~ **2024**, we had an accumulated deficit of \$ ~~721.804.6~~ **2** 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 **GevoRNG**. ~~Gevo RNG~~. Furthermore, we expect to spend significant amounts on the further development and commercial implementation of our strategic plans and technology. We also expect to spend significant amounts on (i) developing and financing our ~~Net~~ **Alcohol - Zero-to- Jet** projects 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 continue to 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, among other things, include costs associated with our ~~Net~~ **Alcohol - Zero-to- Jet** 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-ATJ-60** and any other ~~Net Zero Alcohol- to- Jet~~ **Net Alcohol - Zero-to- Jet** 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~~ **Alcohol - Zero-to- Jet** Projects, including **NZ1-ATJ- 60**; ● the timing of and costs involved in obtaining permits and compliance with applicable regulations; ● the timing and costs associated with any future capital projects or expansions; ● the costs involved in maintaining the Luverne Facility; ● our ability to gain market acceptance for our products; ● our ability to negotiate financeable 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~~ **Alcohol - Zero-to- Jet** Projects, including **NZ1-ATJ- 60**; ● our plans to enter into agreements with strategic partners; ● our development of future capital projects or expansions; ● 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. Our proposed growth projects may not be completed or, if completed, may not perform as expected or achieve profitability. Our project development activities may consume a significant portion of our management's focus, and if not successful, reduce our profitability. 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. ~~21 We~~ **We** may be unable to successfully perform under current or future offtake agreements to provide our products, ~~which could harm~~ **and we may need to renegotiate some of our commercial prospects' offtake agreements**. 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"). However, in order to commence construction of and complete the Facility, we must secure third-party financing. We cannot assure you that **with the current offtake agreements** we will be able to obtain adequate financing on favorable terms, or at all, **and may need to enter into additional offtake agreements or renegotiate the terms of current offtake agreements**. 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 **or**, we experience production delays, **or** if demand decreases or **if** we encounter difficulties in successfully completing the Facility or producing our renewable hydrocarbon products to specification, our counterparties may terminate our existing offtake agreements and potential customers may be less willing to negotiate definitive offtake agreements with us, which would adversely impact our performance and results of operations. ~~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 production 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, market conditions for our products, 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 production 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, our failure to realize the expected revenue under our offtake agreements would have a material adverse effect on our business, financial condition, results of operation and liquidity.~~ ~~Fluctuations~~ **19Fluctuations** in the price of corn and other feedstocks may affect our cost structure. Our approach to the renewable fuels and chemicals markets is 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 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 and we may be unable to pass the full amount of feedstock cost increases on to our customers, which would make it unprofitable for us to operate in these markets. In addition, passing along increased pricing to our customers could result in fewer or reduced orders or customer loss altogether. No assurance can be given that we will be able to purchase corn and other feedstocks at or near prices which would provide us with positive margins. 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, pests, global or regional growing conditions, including plant disease, farming decisions, government policies and subsidies with respect to agriculture and international trade, increasing input costs, prices for alternative crops, global political or economic issues and conflicts and shifts in global ~~22demand~~ **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. Fluctuations in petroleum prices and customer demand patterns may reduce demand for renewable fuels. 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. In such cases, we may not be able to offer our customers an attractive price for our fuels,

market adoption of our fuels could be slowed or limited and / or we may be forced to reduce the prices at which we sell our fuels in order to try to attract new customers or prevent the loss of demand from existing customers. 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. We may not be successful in the commercialization of alcohol- to- SAF projects utilizing Axens technology. Our future success on alcohol- to- SAF projects depends on, among other things, 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 in scaling or constructing alcohol- to- SAF projects, it 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. Our assumptions, however, may prove to be incorrect. Accordingly, we cannot be certain that we will be able to consistently produce renewable hydrocarbon products in an economical manner in commercial quantities. In addition, we expect to incur significant capital expenditures to build out our Net Alcohol- Zero- to- Jet projects and produce renewable hydrocarbon products. If we fail to build or scale up the facilities required to produce our renewable hydrocarbon products or are unable 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. 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 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 and other important costs may vary from the costs we originally estimated. These variations may cause the gross profit of a project to materially differ from what 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 . An impairment of our long- lived assets or goodwill could reduce our earnings or negatively impact our financial condition and results of operations. We continually monitor our business, the business environment and the performance of our operations to determine if an event has occurred that indicates that a long- lived asset or goodwill may be impaired. If an event occurs, which is a determination that involves judgment, we may be required to utilize cash flow projections to assess our ability to recover the carrying value based on the ability to generate future cash flows. Our long- lived assets and goodwill impairment analyses are sensitive to changes in key assumptions used in our analysis, such as expected future cash flows, the degree of volatility in equity and debt markets and our unit price. If the assumptions used in our analysis are not realized, it is possible a material impairment charge may need to be recorded in the future. We cannot accurately predict the amount and timing of any impairment of long- lived assets or goodwill. Further, as we continue to develop our strategy regarding certain of our non- core assets, we will need to continue to evaluate the carrying value of those assets. Any additional impairment charges that we may take in the future could be material to our results of operations and financial condition. We may be subject to liabilities and losses that may not be covered by insurance. Our employees and facilities are subject to the hazards associated with producing RNG and other products. Operating hazards can cause personal injury and loss of life, damage to, or destruction of, property, plant and equipment and environmental damage. We maintain insurance coverage in amounts, against the risks that we believe are consistent with industry practice and maintain an active safety program. However, we could sustain losses for uninsurable or uninsured risks, or in amounts in excess of existing insurance coverage. Events that result in significant personal injury or damage to our property or to property owned by third parties or other losses that are not fully covered by insurance could have a material adverse effect on our results of operations and financial position. Insurance liabilities are difficult to assess and quantify due to unknown factors, including the severity of an injury, the determination of our liability in proportion to other parties, the number of incidents not reported and the effectiveness of our safety program. If we were to experience insurance claims or costs above our coverage limits or that are not covered by our insurance, we might be required to use working capital to satisfy these claims rather than to maintain or expand our operations. To the extent that we experience a material increase in the frequency or severity of accidents or workers' compensation claims, our operating results and financial condition could be materially and adversely affected . We may be unable to produce renewable hydrocarbon products in

accordance with customer specifications. 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, hinder market adoption of our products, and harm our reputation, thus having a material adverse impact on our business and results of operations. Our experience may not be sufficient to operate commercial- scale facilities and we may encounter substantial difficulties operating commercial plants or expanding our business. 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 **GevoRNG** Gevo RNG and **Net Alcohol - Zero to- Jet** Projects. The skills and knowledge gained in operating our current facilities may not be sufficient to support the ~~for~~ successful operation of a large- scale production 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. Any production delays or volume or other issues resulting from our inability to operate at a commercial scale could result in additional capital expenditures and investment, reduced sales volumes, loss of customers, harm to our reputation and could have a material adverse impact on our financial condition and results of operations. In addition, 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.

Mergers ~~24~~Even if we are successful in producing our products on a commercial scale, we **acquisitions and other strategic investments** may not be successful in **achieving intended benefits, cost savings and synergies and negotiating additional fuel offtake agreements or pricing terms to support the growth of our business.** We expect that many ~~may disrupt current operations.~~ **From time to time, we may complete acquisitions** of our customers will be large companies with extensive experience operating in the fuels or chemicals markets. We lack significant commercial operating experience and **certain businesses or assets of companies, and we** may face **not realize the expected benefits from such acquisitions because of integration** difficulties in developing marketing expertise in these fields. Our business model relies upon our ~~or~~ 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 ~~other challenges.~~ **For example, on January 31, 2025, we closed on the previously announced acquisition of Red Trail Energy, LLC (“ Red Trail ”) to** purchase of limited quantities from us. Our ability to increase our sales will depend in large part upon our ability to retain existing customers and expand these existing customer relationships into long- term offtake agreements. Maintaining and expanding our existing relationships and establishing new ones can require substantial **substantially all of** investment without any assurance from customers that they ~~the~~ 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 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 appropriate opportunities become available, we may acquire businesses, **assets, and assume** 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, **of Red Trail (including problems integrating the purchased operations, technologies or products, unanticipated costs and other** ~~the “ Transaction ”~~ 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 **of any newly acquired business, such as the Transaction, may be complex, costly and** time from focusing on ~~consuming.~~ **The potential difficulties of integrating the operating operations** ~~our of an acquired~~ business , result in a decline in employee morale and **realizing** cause retention issues to arise from changes in compensation, reporting relationships, future prospects or **our expectations for an acquisition, including the benefits that may be realized, include, among the other direction things: 22** ● **failure** of the business . In addition, we may acquire companies that have insufficient internal financial controls, which could

impair our ability to **perform** 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, **planned following the acquisition** our **or achieve** business, financial condition and results of operations may be materially adversely affected. 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 appropriate opportunities become available, we may enter into joint ventures with various parties. Realizing the anticipated **revenue, cash flow** benefits of joint ventures involves a number of potential challenges. The failure to meet these challenges could seriously harm our **or profitability** financial condition and results of operations. In addition, these arrangements typically involve restrictions on actions that the joint venture may take without the approval of the other parties, which could limit our ability to manage the joint venture in a manner that serves our best interests. Finally, 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; • **unexpected costs or** difficulties obtaining **in completing** the permits and approvals **acquisition or integration of required acquired** to produce and sell products in different geographic areas **companies or assets, including as a result of regulatory challenges**; • complexities associated with managing **higher than expected costs, lower than expected cost savings or synergies and / or a need to allocate resources to manage unexpected operating difficulties**; • difficulties assimilating the potential geographic separation **operations and personnel** of facilities **acquired companies into our operations**; • diversion of **the attention and resources of** management or attention from ongoing business concerns to matters related to the **other joint ventures disruptions to current operations**; • difficulties maintaining effective **unanticipated changes in applicable laws and** relationships **regulations**; • **risks inherent in our acquired companies' and businesses' industry and operations**; • **unanticipated issues in conforming our acquired companies' and businesses' standards, processes, procedures and internal controls with our operations** personnel from different corporate cultures; and • **failures or delays in receiving the necessary approvals by the relevant regulators and authorities**; • **retaining key customers, suppliers and employees**; • **retaining and obtaining required regulatory approvals, licenses and permits**; • **operating risks inherent in the acquired business and our business**; and • **the other inability-unanticipated issues, expenses and liabilities. Our failure** to generate sufficient revenue to offset retrofit **successfully complete the integration of any acquired business, including as a result of regulatory challenges and any adverse consequences associated with future acquisition activities, could have an adverse effect on our business, financial condition and operating results. Even if the integration of any acquired business is successfully completed, the full expected benefits and synergies of the acquisition may not be realized. Additional unanticipated costs, which could be material, may also be incurred in the integration of our business and the acquired business. Additionally, the full benefits of an acquisition may not be realized if the combined business does not perform as expected or demand for the combined company's services does not meet our expectations. If any of the above risks occur, our business, financial condition, results of operations and cash flows may be materially and adversely impacted, we may fail to meet the expectations of investors or analysts, and our stock price may decline as a result**. If we lose key personnel, including key management personnel, or are unable to attract and retain additional personnel, it could delay our product development programs and harm our research and development efforts, make it more difficult to pursue partnerships or develop our own products or otherwise have a material adverse effect on our business. Our business is complex and we intend to target a variety of markets. Therefore, it is critical that our management team and employee workforce are knowledgeable in the areas in which we operate. The departure, illness or absence of any key members of our management, including our named executive officers, or the failure to attract or retain other key employees who possess the requisite expertise for the conduct of our business, could prevent us from developing and commercializing our products for our target markets and entering into partnerships or licensing arrangements to execute our business strategy, as could the loss of any key scientific staff, or the failure to attract or retain other key scientific employees. 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 **and to grow our business**. 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. **23** **We 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 from companies with greater resources and financial strength, which could adversely affect our performance and growth. We may face substantial competition in the markets for 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 ~~26and~~ and marketing resources than we do. In addition, certain of our competitors may also benefit from local government subsidies and other incentives that are not available to us. As a result, our competitors may be able to develop competing and / or superior technologies and processes, and compete more aggressively and sustain that competition over a longer period of time than we could. Our technologies and products may be rendered obsolete or uneconomical by technological advances or entirely different approaches developed by one or more of our competitors. As more companies develop new intellectual property in our markets, the possibility of a competitor acquiring patent or other rights that may limit our products or potential products increases, which could lead to litigation. Furthermore, to secure purchase agreements from certain customers, we may be required to enter into exclusive supply contracts, which could limit our ability to further expand our sales to new customers. Likewise, major potential customers may be locked into long- term, exclusive agreements with our competitors, which could inhibit our ability to compete for their business. ~~In addition, various governments have recently announced a number of spending programs focused on the development of clean technologies, including alternatives to petroleum-based fuels and the reduction of carbon emissions. Such spending programs could lead to increased funding for our competitors or a rapid increase in the number of competitors within those markets.~~ Our limited resources relative to many of our competitors may cause us to fail to anticipate or respond adequately to new developments and other competitive pressures. This failure could reduce our competitiveness and market share, adversely affect our results of operations and financial position and prevent us from obtaining or maintaining profitability. ~~Business interruptions may have an adverse impact on our business and our financial results. We are vulnerable to natural disasters and other events that could disrupt our operations, such as riots, civil disturbances, war, terrorist acts, pandemics and other public health crises, weather conditions, electricity rationing, floods, infections in our laboratory or production facilities or those of our contract manufacturers and other events beyond our control. We do not have a detailed disaster recovery plan. In addition, we may not carry sufficient business interruption insurance to compensate us for losses that may occur. Any losses or damages we incur could have a material adverse effect on our cash flows and success as an overall business.~~ Our business and operations would suffer in the event of IT system failures or a cyber-attack. 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. ~~27We~~ ~~24We~~ may engage in hedging transactions, which could adversely impact our business. 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. ~~Ethical, legal and social concerns about genetically engineered products and processes, and similar concerns about feedstocks grown on land that could be used for food production, could limit or prevent the use of our products, processes and technologies and limit our revenues. Some of our processes involve the use of genetically engineered organisms or genetic engineering technologies. Additionally, our feedstocks may be grown on land that could be used for food production, which subjects our feedstock sources to “ food versus fuel ” concerns. If we are not able to overcome the ethical, legal and social concerns relating to genetic engineering or food versus fuel, our products and processes may not be accepted widely enough for our business to be profitable, or at all. 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. Any negative publicity (even if relating to the actions or products of a competitor or partner) could have a negative impact on our business and / or perceptions of our products. This could result in lower revenue and profits. This adverse publicity could also lead to greater regulation and trade restrictions on imports of genetically engineered products or feedstocks grown on land suitable for food production. Additionally, the use of social media platforms and similar devices, provide an opportunity for the immediate and far- reaching dissemination of information, including inaccurate information. Information concerning us or our products may be posted on such platforms at any time, and such information may be adverse to our interests or may be inaccurate, each of which may harm our performance, prospects, or business. The harm may be immediate without affording us an opportunity for redress or correction. 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 SAF may damage engines or otherwise fail to perform as expected. If SAF degrades the performance or reduces 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, 2018 2023, 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, 2023 2024 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. 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. 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 25government 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 29prior -- 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. In order to benefit from RINs and LCFS credits, our RNG projects are required to be registered and are subject to regulatory audit. We are required to register an RNG project with the EPA and relevant state regulatory agencies. Further, we qualify our RINs through a voluntary Quality Assurance Plan. By registering our RNG project with the EPA’ s voluntary Quality Assurance Plan, we are subject to quarterly third- party audits and semi- annual on- site visits of our projects to validate generated RINs and overall compliance with the RFS program. We are also subject to a separate third party’ s annual attestation review. The Quality Assurance Plan provides a process for RIN owners to follow, for an affirmative defense to civil liability, if used or transferred Quality Assurance Plan verified RINs were invalidly

generated. A project's failure to comply could result in remedial action by the EPA, including penalties, fines, retirement of RINs, or termination of the project's registration, any of which could adversely affect our business, financial condition and results of operations. Our RNG **operations project** has, and any future digester **project projects** may not be able to achieve the operating results we expect from these projects. Our RNG project is dependent on the LCFS credits and RINs produced at the dairy farms that make up part of our RNG project. In the event that CARB reduces the CI score that it applies to waste conversion projects, such as dairy digesters, the number of LCFS credits for RNG generated at our RNG project will decline. Additionally, revenue from LCFS credits also depends on the price per LCFS credit, which is driven by various market forces, including the supply of and demand for LCFS credits, which in turn depends on the demand for traditional transportation fuel and the supply of renewable fuel from other renewable energy sources, and mandated CI targets, which determine the number of LCFS credits required to offset LCFS deficits, and which increase over time. A significant decline in the value of LCFS credits could require us to incur an impairment charge on our RNG project and could adversely affect our business, financial condition and results of operations. **If we fail to maintain an effective system of internal controls, we might not be able to report our financial results accurately or prevent fraud; in that case, our stockholders could lose confidence in our financial reporting, which would harm our business and could negatively impact the price of our stock. Effective internal controls are necessary for us to provide reliable financial reports and prevent fraud. In addition, Section 404 of the Sarbanes-Oxley Act of 2002 ("Section 404") requires us to evaluate and report on our internal control over financial reporting and have our principal executive officer and principal financial officer certify as to the accuracy and completeness of our financial reports. The process of maintaining our internal controls and complying with Section 404 is expensive and time consuming, and requires significant attention of management. We cannot be certain that these measures will ensure that we maintain adequate controls over our financial processes and reporting in the future. Even if we conclude that our internal control over financial reporting provides reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles, because of their inherent limitations, our internal controls over financial reporting may not prevent or detect fraud or misstatements. Failure to maintain required controls or implement new or additional controls as circumstances warrant, or difficulties encountered in maintaining or implementing controls, could harm our results of operations or cause us to fail to meet our reporting obligations.** 26Our management has concluded that the Company's disclosure controls and procedures were not effective as of December 31, 2024 because of a material weakness relating to not having a sufficient complement of personnel with the necessary technical expertise and accounting knowledge to appropriately address complex and non-routine transactions. Notwithstanding the material weakness that existed as of December 31, 2024, management has concluded that the consolidated financial statements included in this report present fairly, in all material respects, the financial position, results of operations and cash flows of the Company in accordance with accounting principles generally accepted in the United States of America ("GAAP"). Management is currently addressing this material weakness in internal control over financial reporting and is committed to remediating it as expeditiously as possible. Management believes that there are no material inaccuracies or omissions of material fact in the Company's financial statements and, to the best of its knowledge, believes that the consolidated financial statements for the year ended December 31, 2024 fairly present in all material respects the Company's financial position, results of operations, and cash flows in accordance with GAAP. However, if our remedial measures are insufficient to address the material weakness, or if we, or our independent registered public accounting firm, discover an additional material weakness, the disclosure of that fact, even if quickly remedied, could reduce the market's confidence in our financial statements and harm our stock price.

Risks Related to Intellectual Property Our ability to compete may be adversely affected if we are unsuccessful in defending against any claims by competitors or others that we are infringing upon their intellectual property rights. The various bioindustrial markets in which we 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 financial condition and 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. 30We We are aware of a significant number of patents and patent applications relating to aspects of our technologies filed by, and issued to, third parties. We cannot assure you that we will ultimately prevail if any of this third-party intellectual property is asserted against us. Our ability to compete may be adversely affected if we do not adequately protect our proprietary technologies or if we lose some of our intellectual property rights through costly litigation or proceedings. Our success will depend in part on our ability to obtain patents and maintain adequate protection of our intellectual property covering our technologies and products and potential products in the U. S. and other countries. We have adopted a strategy of seeking patent protection in the U. S. and in certain foreign countries with respect to certain of the technologies used in or relating to our products and processes. We own rights to hundreds of issued patents and

filed patent applications in the U. S. and in various foreign jurisdictions. When and if issued, patents would expire at the end of their term and any patent would only provide us commercial advantage for a limited period of time, if at all. Our **patent** **27** 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. **31** **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 and our business could be harmed. 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** **28** **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 and have an adverse impact on our financial condition. We may not be able to enforce our intellectual property rights throughout the world. The laws of some foreign countries do not protect intellectual property rights to the same extent as federal and state laws in the U. S. Many companies have encountered significant problems in protecting and enforcing intellectual property rights in certain foreign jurisdictions, and, particularly 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 ~~32~~efforts-- **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 **or maintain a significant commercial advantage from the intellectual property that we develop , which could negatively impact our results of operations and financial condition**. Confidentiality agreements with employees and others may not adequately prevent disclosures of trade secrets and other proprietary information. We rely in part on trade secret protection to protect our confidential and proprietary information and processes. However, trade secrets are difficult to protect. We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual' s relationship with us be kept confidential and not disclosed to third parties. These agreements also generally provide that know- how and inventions conceived by the individual in the ~~course~~ **29course** of rendering services to us shall be our exclusive property. Nevertheless, these agreements may not be enforceable, our proprietary information may still 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. Any exposure of our trade secrets or other proprietary information could harm our competitive position and have an adverse impact on our financial condition. 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 RegulatoryThe 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. 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 ~~33~~minimum-- **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-30A** 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. 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. 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 **and adversely affect our business.** 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. Negative attitudes toward renewable energy projects from the U. S. government, other lawmakers and regulators, **and** activists **and others** could adversely affect our business, 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 ~~34modification--~~ **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. 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 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~~ **31environmental** laws, there can be no assurance that violations of environmental, health and safety laws will not occur in the future as a result of human error, accident, equipment failure or other causes. Compliance with applicable environmental laws and regulations may be expensive, and the failure to comply with past, present or future laws could result in the imposition of fines, third-party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations, and our liability may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business. Our international activities may increase our exposure to potential liability under anti-corruption, trade protection, tax and other laws and regulations. In the course of our relationships with 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 may not be able to comply with all applicable listing requirements or standards of The Nasdaq Capital Market and Nasdaq could delist our common stock. Our common stock is listed on The Nasdaq Capital Market, and in order to maintain that listing, we must satisfy applicable Nasdaq continued listing requirements. The inability to comply with applicable listing requirements or standards of The Nasdaq Stock Market LLC (“Nasdaq”) could result in the delisting of our common stock, which could have a material adverse effect on our financial condition and could cause the value of our common stock to decline. Delisting of our common stock could also adversely affect our ability to raise additional financing, could significantly affect the ability of our investors to trade our securities and could negatively affect the value and liquidity of our common stock. Delisting could also have other negative results, including the potential loss of confidence by employees and fewer business development opportunities.

~~35 On February 29, 2024, we received notice from Nasdaq that the Company is not in compliance with Nasdaq Listing Rule 5550 (a) (2) (the “Minimum Bid Price Requirement”), as the minimum bid price of our common stock had been below \$ 1.00 per share for the previous 30 consecutive business days. The notice has no immediate effect on the listing or trading of our common stock. We have 180 calendar days, or until August 27, 2024, to regain compliance with the Minimum Bid Price Requirement. To regain compliance, the minimum bid price of our common stock must meet or exceed \$ 1.00 per share for a minimum of ten consecutive business days during this 180-calendar day grace period. In the event we do not regain compliance with the Minimum Bid Price Requirement by August 27, 2024, we may be eligible for an additional 180-calendar day compliance period. If we do not qualify for the second compliance period or fail to regain compliance during the second 180-day period, then Nasdaq will notify us of its determination to delist our common stock, at which point we will have an opportunity to appeal the delisting determination to a hearings panel. We intend to actively monitor the bid price of our common stock and may, if appropriate, consider implementing available options to regain compliance with the Minimum Bid Price Requirement. There can be no assurance that we will regain compliance with the Minimum Bid Price Requirement or maintain compliance with any of the other Nasdaq continued listing requirements.~~ 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. 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. 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. 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~~ **32** 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-ATJ-60** and any other **Net Alcohol - Zero-to-Jet** 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.

~~36~~ Our **Our** stock price may be volatile, and your investment in our securities could suffer a decline in value. The market price of shares of our common stock has experienced significant price and volume fluctuations. We cannot predict whether the price of our common stock will rise or fall. A variety of factors may have a significant effect on our stock price, including:

- actual or anticipated fluctuations in our liquidity, financial condition and operating results;
- the position of our cash and cash equivalents;
- the capital costs required to construct our **Net Alcohol - Zero-to-Jet** Projects;
- our ability to obtain certain regulatory permits or approvals for our production facilities, including our **Net Alcohol - Zero-to-Jet** 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 **and 33** ● general economic and market conditions. Furthermore, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations often have been unrelated or disproportionate to the operating performance of those companies. These broad market and industry fluctuations, as well as general economic, political and market conditions such as recessions, interest rate changes or international currency fluctuations, may negatively impact the market price of shares of our common stock, regardless of our operating performance, and cause the value of your investment to decline. 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 **37** activity -- **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. The estimates and assumptions on which our financial projections are based may prove to be inaccurate. 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. Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies. We may seek additional capital through a combination of public and private equity offerings, debt financings, strategic partnerships and licensing arrangements. To the extent that we raise additional capital through the sale or issuance of equity, warrants or convertible debt securities, 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 34** **We** do not anticipate paying cash dividends, and accordingly, stockholders must rely on stock appreciation for any return on their investment. We have never paid cash dividends on our common stock and we do not expect to pay cash dividends on our common stock at any time in the foreseeable future. The future payment of dividends directly depends upon our future earnings, capital requirements, financial requirements and other factors that our board of directors will consider. As a result, only appreciation of the price of our common stock, which may never occur, will provide a return to stockholders. Investors seeking cash dividends should not invest in our common stock. If securities or industry analysts do not publish research or reports about our business, or publish negative reports about our business, our stock price and trading volume could decline. The trading market for our common stock will be influenced by the research and reports that securities or industry analysts publish about us or our business. We do not have any control over securities or industry analysts. If one or more of the analysts who cover us downgrade our common stock or change their opinion of our common stock, our common stock price would likely decline which in turn would likely cause a decline in the value of our warrants. 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. **38** **We** **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. 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, 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. 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 **35** 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. 39