
**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2023

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES AND EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 001-35073

GEVO, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

**345 Inverness Drive South,
Building C, Suite 310
Englewood, CO**

(Address of principal executive offices)

87-0747704

(I.R.S. Employer
Identification No.)

80112

(Zip Code)

(303) 858-8358

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, par value \$0.01 per share	GEVO	The Nasdaq Stock Market LLC

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

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

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input checked="" type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

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

As of November 13, 2023, 240,304,735 shares of the registrant's common stock were outstanding.

GEVO, INC.
FORM 10-Q
FOR THE QUARTERLY PERIOD ENDED SEPTEMBER 30, 2023
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PART I: FINANCIAL INFORMATION

Item 1. Financial Statements.

GEVO, INC.
CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands, except share and per share amounts)

	Note	September 30, 2023	December 31, 2022
Assets			
Current assets			
Cash and cash equivalents		\$ 323,510	\$ 237,125
Marketable securities	5	—	167,408
Restricted cash	6	77,759	1,032
Trade accounts receivable, net		2,242	476
Inventories	9	3,688	6,347
Prepaid expenses and other current assets	7	4,032	3,034
Total current assets		411,231	415,422
Property, plant and equipment, net	10, 20	238,117	185,174
Restricted cash	6	—	77,219
Operating right-of-use assets	8	1,386	1,331
Finance right-of-use assets	8	212	219
Intangible assets, net	11	6,816	7,691
Deposits and other assets	12	11,759	13,692
Total assets		<u>\$ 669,521</u>	<u>\$ 700,748</u>
Liabilities			
Current liabilities			
Accounts payable and accrued liabilities	13, 20	\$ 27,895	\$ 24,760
Operating lease liabilities	8	521	438
Finance lease liabilities	8	28	79
Loans payable	14	137	159
2021 Bonds payable, net	14	67,780	—
Total current liabilities		96,361	25,436
2021 Bonds payable, net	14	—	67,223
Loans payable	14	54	159
Operating lease liabilities	8	1,376	1,450
Finance lease liabilities	8	199	183
Other liabilities		—	820
Total liabilities		<u>97,990</u>	<u>95,271</u>
Stockholders' Equity			
Common stock, \$0.01 par value per share; 500,000,000 shares authorized; 240,252,707 and 237,166,625 shares issued and outstanding at September 30, 2023, and December 31, 2022, respectively.		2,403	2,372
Additional paid-in capital		1,272,248	1,259,527
Accumulated other comprehensive loss		—	(1,040)
Accumulated deficit		(703,120)	(655,382)
Total stockholders' equity		571,531	605,477
Total liabilities and stockholders' equity		<u>\$ 669,521</u>	<u>\$ 700,748</u>

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited, in thousands, except share and per share amounts)

	Note	Three Months Ended September 30,		Nine Months Ended September 30,	
		2023	2022	2023	2022
Total operating revenues	2, 21	\$ 4,528	\$ 309	\$ 12,826	\$ 630
Operating expenses:					
Cost of production	15	2,480	575	8,836	5,499
Depreciation and amortization	10, 11	4,994	1,657	14,323	4,573
Research and development expense	15	1,558	1,562	4,716	4,720
General and administrative expense		10,522	11,144	31,891	29,205
Project development costs	15	4,789	2,218	10,635	5,550
Facility idling costs		911	2,330	2,923	2,330
Impairment loss	3	—	24,749	—	24,749
Total operating expenses	15	25,254	44,235	73,324	76,626
Loss from operations		(20,726)	(43,926)	(60,498)	(75,996)
Other income (expense)					
Interest expense		(540)	(455)	(1,615)	(459)
Interest and investment income	5, 18	5,261	896	14,083	1,226
Other income (expense), net		305	(301)	292	2,609
Total other income, net		5,026	140	12,760	3,376
Net loss		\$ (15,700)	\$ (43,786)	\$ (47,738)	\$ (72,620)
Net loss per share - basic and diluted		\$ (0.07)	\$ (0.19)	\$ (0.20)	\$ (0.34)
Weighted-average number of common shares outstanding					
- basic and diluted	4	239,537,811	236,649,805	238,100,986	216,255,710

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS
(Unaudited, in thousands)

	<u>Note</u>	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
		2023	2022	2023	2022
Net loss		\$ (15,700)	\$ (43,786)	\$ (47,738)	\$ (72,620)
Other comprehensive income (loss):					
Unrealized gain (loss) on available-for-sale securities	5	—	88	1,040	(1,554)
Comprehensive loss		<u>\$ (15,700)</u>	<u>\$ (43,698)</u>	<u>\$ (46,698)</u>	<u>\$ (74,174)</u>

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(Unaudited, in thousands, except share amounts)

		For the Three Months Ended September 30, 2023 and 2022					
		Common Stock		Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Stockholders' Equity
Note	Shares	Amount					
Balance, June 30, 2023		237,647,431	\$ 2,377	\$ 1,268,142	\$ —	\$ (687,420)	\$ 583,099
Non-cash stock-based compensation	15	—	—	4,132	—	—	4,132
Stock-based awards and related share issuances, net	19	2,605,276	26	(26)	—	—	—
Net loss		—	—	—	—	(15,700)	(15,700)
Balance, September 30, 2023		<u>240,252,707</u>	<u>\$ 2,403</u>	<u>\$ 1,272,248</u>	<u>\$ —</u>	<u>\$ (703,120)</u>	<u>\$ 571,531</u>
Balance, June 30, 2022		235,165,951	\$ 2,353	\$ 1,249,880	\$ (2,256)	\$ (586,209)	\$ 663,768
Non-cash stock-based compensation	15	—	—	4,361	—	—	4,361
Stock-based awards and related share issuances, net		2,055,781	19	492	—	—	511
Other comprehensive income		—	—	—	88	—	88
Net loss		—	—	—	—	(43,786)	(43,786)
Balance, September 30, 2022		<u>237,221,732</u>	<u>\$ 2,372</u>	<u>\$ 1,254,733</u>	<u>\$ (2,168)</u>	<u>\$ (629,995)</u>	<u>\$ 624,942</u>
		For the Nine Months Ended September 30, 2023 and 2022					
		Common Stock		Paid-In Capital	Accumulated Other Comprehensive Loss	Accumulated Deficit	Stockholders' Equity
Note	Shares	Amount					
Balance, December 31, 2022		237,166,625	\$ 2,372	\$ 1,259,527	\$ (1,040)	\$ (655,382)	\$ 605,477
Non-cash stock-based compensation	15	—	—	12,752	—	—	12,752
Stock-based awards and related share issuances, net	19	3,086,082	31	(31)	—	—	—
Other comprehensive income		—	—	—	1,040	—	1,040
Net loss		—	—	—	—	(47,738)	(47,738)
Balance, September 30, 2023		<u>240,252,707</u>	<u>\$ 2,403</u>	<u>\$ 1,272,248</u>	<u>\$ —</u>	<u>\$ (703,120)</u>	<u>\$ 571,531</u>
Balance, December 31, 2021		201,988,662	\$ 2,020	\$ 1,103,224	\$ (614)	\$ (557,375)	\$ 547,255
Issuance of common stock and common stock warrants, net of issuance costs	19	33,333,336	333	138,675	—	—	139,008
Issuance of common stock upon exercise of warrants	19	4,677	—	3	—	—	3
Non-cash stock-based compensation	15	—	—	12,625	—	—	12,625
Stock-based awards and related share issuances, net	19	1,895,057	19	206	—	—	225
Other comprehensive loss		—	—	—	(1,554)	—	(1,554)
Net loss		—	—	—	—	(72,620)	(72,620)
Balance, September 30, 2022		<u>237,221,732</u>	<u>\$ 2,372</u>	<u>\$ 1,254,733</u>	<u>\$ (2,168)</u>	<u>\$ (629,995)</u>	<u>\$ 624,942</u>

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited, in thousands)

	Note	Nine Months Ended September 30,	
		2023	2022
Operating Activities			
Net loss		\$ (47,738)	\$ (72,620)
Adjustments to reconcile net loss to net cash used in operating activities:			
Impairment loss	3	—	24,749
Stock-based compensation	15	12,752	12,624
Depreciation and amortization	10, 11	14,323	4,452
Amortization of marketable securities (discount) premium		(102)	2,755
Other noncash expense (income)		655	(153)
Changes in operating assets and liabilities:			
Accounts receivable		(1,766)	626
Inventories	9	1,137	(338)
Prepaid expenses and other current assets, deposits and other assets	7, 12	(816)	(5,078)
Accounts payable, accrued expenses and non-current liabilities	13	427	207
Net cash used in operating activities		(21,128)	(32,776)
Investing Activities			
Acquisitions of property, plant and equipment	10, 20	(61,413)	(76,837)
Acquisition of patent portfolio	11	—	(10)
Proceeds from maturity of marketable securities	5	168,550	243,817
Purchase of marketable securities	5	—	(130,402)
Proceeds from sale of property, plant and equipment	10	34	-
Net cash provided by investing activities		107,171	36,568
Financing Activities			
Debt and equity offering costs	19	—	(10,993)
Proceeds from issuance of common stock and common stock warrants	19	—	150,000
Proceeds from exercise of warrants	19	—	3
Net settlement of common stock under stock plans	15	—	(285)
Payment of loans payable	14	(128)	(112)
Payment of finance lease liabilities	8	(22)	(8)
Net cash (used in) provided by financing activities		(150)	138,605
Net increase in cash and cash equivalents		85,893	142,397
Cash, cash equivalents and restricted cash at beginning of period		315,376	136,033
Cash, cash equivalents and restricted cash at end of period		\$ 401,269	\$ 278,430
		Nine Months Ended September 30,	
		2023	2022
Schedule of cash, cash equivalents and restricted cash			
Cash and cash equivalents		\$ 323,510	\$ 200,564
Restricted cash (current)		77,759	1,024
Restricted cash (non-current)		—	76,842
Total cash, cash equivalents and restricted cash		\$ 401,269	\$ 278,430
		Nine Months Ended September 30,	
		2023	2022
Supplemental disclosures of cash and non-cash investing and financing transactions			
Cash paid for interest, net of amounts capitalized		\$ 1,028	\$ 770
Non-cash purchase of property, plant and equipment		15,593	11,136
Right-of-use asset purchased with operating lease		\$ 199	\$ —

See the accompanying Notes to the Consolidated Financial Statements.

GEVO, INC.
Notes to Consolidated Financial Statements
(unaudited)

1. Nature of Business, Financial Condition and Basis of Presentation

Nature of business.

Gevo, Inc. (Nasdaq: GEVO) (“Gevo”, “we”, “us”, “our”, or the “Company,” which, unless otherwise indicated, refers to Gevo, Inc. and its subsidiaries), a Delaware corporation founded in 2005, is a growth-oriented company with the mission of solving greenhouse gas (“GHG”) emissions for those sectors of the transportation industry that are not amenable to electrification or hydrogen.

The Company is focused on transforming renewable energy into energy-dense liquid drop-in hydrocarbons that can be used as renewable fuels, such as sustainable aviation fuel (“SAF”) and other fuels and chemicals, with the potential to achieve a “net-zero” GHG, or even carbon negative footprint measured by the Argonne National Laboratory’s GREET (Greenhouse gases, Regulated Emissions, and Energy use in Transportation) model (the “GREET Model”) to measure, predict and verify GHG emissions across the life-cycle. Our “net-zero” concept means production of drop-in hydrocarbon fuels by using sustainably grown feedstocks (e.g., low till, no-till and dry corn cultivation), renewable and substantially decarbonized energy sources, resulting in a net-zero carbon footprint from the full life cycle of the fuel measured from the capture of renewable carbon through the burning of the fuel.

Gevo’s primary market focus, given current demand and growing customer interest, is SAF. The Company believes that SAF from carbohydrates to alcohol is the most economically viable approach for carbon abatement. The Company also has commercial opportunities for other renewable hydrocarbon products, such as (i) renewable natural gas, also known as biogas (“RNG”), (ii) hydrocarbons for gasoline blendstocks and diesel fuel, and (iii) plastics, materials and other chemicals. We are engaged in technology, process and intellectual property development targeted to large scale deployment of net-zero hydrocarbon fuels and chemicals. We are developing the marketplace and customers for SAF and other related products. We also are engaged as a developer and enabler/licensor for large scale commercial production, and we expect to be a co-investor on certain projects. Gevo’s business model is that of a developer of projects, a licensor, process technology developer, and operator of certain assets in the future.

Net-Zero Projects

In early 2021, we announced our proprietary “Net-Zero Projects” that we developed and engineered as a series of planned facilities to produce energy dense liquid hydrocarbons using renewable energy and our proprietary technology. Our Net-Zero Projects will convert renewable energy (e.g., photosynthetic, wind, RNG) from a variety of sources into energy dense liquid hydrocarbons that, when burned in traditional engines, has the potential to achieve net-zero GHG emissions across the whole lifecycle of the liquid fuel: from the way carbon is captured from the atmosphere, processed to make liquid fuel products, and burned as a fuel for planes, cars, trucks, and ships. Gevo has engineered, developed, and owns our Net-Zero plant designs, and the overall Gevo Net-Zero process (i.e., the process to enable carbon-negative olefins, and hydrocarbon fuels with an anticipated net-zero or better carbon footprint measured across the lifecycle of the whole processes). The proprietary Gevo Net-Zero processes and plant designs are based upon the conversion of carbohydrates to alcohols, then the conversion of the alcohols to olefins (i.e., building blocks for chemicals, plastics, and fuels), and then the conversion of the olefins into fuels, all optimized and integrated to achieve a net-zero carbon footprint. We’ve taken what we believe are the best of proven unit operations from the fermentation and petrochemical industry. In the fermentation section of our plant design, we work with Fluid Quip Technologies, LLC and PRAJ Industries Limited (“PRAJ”), as well as other suppliers of unit operations, and using Axens North America, Inc. (“Axens”) as the unit operation technology supplier for producing olefins and fuels. Gevo has developed and owns the overall proprietary plant designs, engineering details, integration technologies, and has filed patents on several process improvements.

In November 2021, Gevo entered into an agreement to exclusively utilize Axens’ technology for isobutanol conversion into hydrocarbons. In February of 2022, Gevo and Axens entered into a second exclusive agreement to specifically cover the process steps for ethanol to finished jet fuel.

GEVO, INC.
Notes to Consolidated Financial Statements
(unaudited)

Our initial Net-Zero Project, Net-Zero 1 (“NZ1”), is expected to be located in Lake Preston, South Dakota, and is being currently designed to produce approximately 65 million gallons per year (“MGPY”) of total hydrocarbon volumes, including 60 MGPY of SAF. Along with the hydrocarbons, NZ1 is being designed to produce approximately 1,390 million pounds per year of high-value protein products for use in the food chain and more than 34 million pounds per year of corn oil. Our products will be produced in three steps; the first step is milling the corn and the production of protein, oil, and carbohydrates, the second step produces alcohols using fermentation and the third step is the conversion of the alcohols into hydrocarbons.

We also are developing other commercial production projects for SAF at other locations in the United States where we expect to use our Net-Zero plant designs based on work done for NZ1 at Lake Preston. Gevo expects to play the role of project developer, plant design and technology licensor, and investor, based on traditional developer business models where the developer gets a partial ownership stake for developing the project. We may also co-invest in projects to increase our equity ownership in those projects.

Renewable Natural Gas Facilities

Gevo’s RNG facilities in Northwest Iowa (“NW Iowa RNG”) are owned by Gevo NW Iowa RNG, LLC, and produce RNG captured from dairy cow manure supplied by three local dairies. Animal manure can be digested anaerobically to produce biogas, which is then upgraded to pipeline quality gas referred to as RNG. The original design capacity for this project was 355,000 MMBtu. Gevo NW Iowa RNG, LLC sells the produced RNG to the California market through an agreement with BP Canada Energy Marketing Corp. and BP Products North America Inc. (collectively, “BP”). In addition, NW Iowa RNG generates and sells Low Carbon Fuel Standard (“LCFS”) credits as well as D3 Renewable Identification Numbers (“RINs”) through the production of RNG (collectively, “environmental attributes”).

Luverne Facility

Gevo’s development plant in Luverne, Minnesota (the “Luverne Facility”), recorded in the Agri-Energy segment, was originally constructed in 1998 and is located on approximately 55 acres of land, which contains approximately 50,000 square feet of building space. Gevo may use the Luverne Facility in the future to prove our processes, process concepts, unit operations and for other purposes in order to optimize feedstocks and the processes used for producing hydrocarbons from alcohols. Currently, the activities at the Luverne Facility are minimized to care and maintenance, market development, and customer education.

Basis of presentation.

The accompanying unaudited condensed consolidated financial statements have been prepared in accordance with U.S. generally accepted accounting principles (“GAAP”) along with the instructions to Form 10-Q and Article 10 of Regulation S-X assuming the Company will continue as a going concern. Accordingly, they do not include the information and footnotes required by GAAP for complete financial statements. These statements reflect all normal and recurring adjustments which, in the opinion of management, are necessary to present fairly the financial position, results of operations and cash flows of the Company as of, and for the nine months ended, September 30, 2023, and are not necessarily indicative of the results to be expected for the full year. These statements should be read in conjunction with the Company’s audited consolidated financial statements and notes thereto included under the heading “Financial Statements and Supplementary Data” in Part II, Item 8 of the Company’s Annual Report on Form 10-K for the year ended December 31, 2022. The financial statements at December 31, 2022, have been derived from the audited financial statements as of that date. For further information, refer to our audited financial statements and notes thereto included for the year ended December 31, 2022 (the “2022 Annual Report”).

GEVO, INC.
Notes to Consolidated Financial Statements
(unaudited)

Prior Period Financial Statement Immaterial Adjustment. The Company has entered into agreements with Zero6 Energy Development, Inc. (“ZEDI”), a national clean energy expert that provides expertise in capital management, development, engineering, and asset management, to develop and construct facilities to provide carbon neutral power to NZ1 via the two limited liability companies: Kingsbury Country Wind Fuel, LLC (“KCWF”) and Dakota Renewable Hydrogen, LLC (“DRH”) (collectively, the “Project LLCs”), respectively, to induce the design and construction of the power generation, transmission and distribution facilities that will serve NZ1. The Project LLCs formed to govern the projects are VIEs. In determining whether the Company was the primary beneficiary of the VIEs, the Company considered both qualitative and quantitative factors regarding the nature, size and form of the involvement with the VIE, such as the role in establishing the VIEs and the ongoing rights and responsibilities; the economic interests deemed to be variable interests in the VIEs; the design of the VIEs, including the capitalization structure, subordination of interests, and payment priority. During the third quarter of 2023, the Company identified that the governance structure and operating procedures of the Project LLCs resulted in the Company having the power to control certain significant activities of the Project LLCs, as defined by Accounting Standards Codification 810 (“ASC 810”), *Consolidations*. Therefore, the Company is the primary beneficiary of the VIEs, and per ASC 810, must consolidate the VIEs. Prior to the third quarter of 2023, the Company did not consolidate the Project LLCs. The Company assessed the materiality of this correction on the previously issued interim and annual financial statements in accordance with SEC Staff Accounting Bulletin No. 99. The Company concluded that the changes were not material to any of the previously issued consolidated financial statements. The Company’s primary involvement with the VIEs is to fund the deposits in order to induce the contractor to design and construct the power generation, transmission and distribution facilities that will serve NZ1. These amounts funded will be either fully reimbursed upon completion of the project or used as an investment into the Project LLC. Gevo has contractual priority liens against the equipment and constructed facilities under the contracts.

A summary of the impact of the adjustment on the Consolidated Balance Sheets for each of the periods ended December 31, 2022, March 31, 2023, and June 30, 2023, respectively, is as follows: an increase to property, plant, and equipment of \$8.3 million, \$19.0 million, and \$19.7 million, and a corresponding decrease in deposits and other assets of \$8.3 million, \$19.0 million, and \$19.7 million. For the period ended March 31, 2023, a summary of the impact of the adjustment on the Consolidated Balance Sheets is as follows: an increase in trade accounts receivable, net, of \$0.1 million and an increase in accounts payable and accrued liabilities of \$0.1 million. For the period ended June 30, 2023, a summary of the impact of the adjustment on the Consolidated Balance Sheets is as follows: a decrease in accounts payable and accrued liabilities of \$0.3 million and a corresponding decrease to deposits and other assets.

Additionally, the following immaterial adjustments were made to the consolidated statements of cash flows associated with the above changes for each of the periods ended September 30, 2022, December 31, 2022, March 31, 2023, and June 30, 2023, respectively, as follows: a decrease in the net cash used in operating activities of \$8.3 million, \$8.3 million, \$10.7 million, and \$11.4 million, and a corresponding decrease in the net cash provided by investing activities reported for the periods then ended, respectively, as a result of these changes. The reclassification was made for presentation purposes and had no impact on the consolidated statements of operations and comprehensive income.

Reclassifications. The Company reclassified certain prior period amounts to conform to the current period presentation. The reclassifications included the categorization of depreciation and amortization on the Consolidated Statements of Operations and had no impact on total revenues, total operating expenses, net loss or stockholders’ equity for any period.

Significant Accounting Policies

Variable Interest Entities. The Company enters into agreements with special purpose entities (“SPEs”), some of which are variable interest entities (“VIEs”), in the ordinary course of business. A legal entity is considered a VIE if it has either a total equity investment that is insufficient to finance its operations without additional subordinated financial support or whose equity holders lack the characteristics of a controlling financial interest. The Company’s variable interests arise from contractual or other monetary interests in the entity. The typical condition for a controlling financial interest ownership is holding a majority of the voting interests of an entity; however, a controlling financial interest may also exist in entities, such as VIEs, through arrangements that do not involve controlling voting interests.

GEVO, INC.
Notes to Consolidated Financial Statements
(unaudited)

The Company consolidates a VIE if it is deemed to be the primary beneficiary. The Company determines it is the primary beneficiary if it has the power to direct the activities that most significantly impact the VIEs' economic performance and has the obligation to absorb losses or has the right to receive benefits of the VIE that could potentially be significant to the VIE. The Company evaluates its relationships with its VIEs on an ongoing basis to determine whether it is the primary beneficiary. See Footnote 20 below for further information.

2. Revenues from Contracts with Customers and Other Revenues

RNG Revenue

The Company's revenues are primarily comprised of the sale of RNG and related environmental attributes produced at the NW Iowa RNG facility under long-term contracts with customers. Revenue is recognized at a point in time when the Company transfers the product to its customer. The customer obtains control of the product upon RNG delivery into gas pipeline system, whereas the title and control for the environmental attributes are transferred to the customer subsequent to the issuance of such attributes by the relevant regulatory agency. The Company generally has a single performance obligation in our arrangements with customers. The Company's performance obligation related to the sales of RNG and related environmental attributes are satisfied at a point in time upon delivery to the customer. Revenue is measured as the amount of consideration the Company expects to receive in exchange for transferring its products. There is no variable consideration present in the Company's performance obligations. Consideration for each transaction is based upon quoted market prices at the time of delivery.

Licensing and Development Revenue

The Company's licensing and development revenue is related to a joint development agreement with LG Chem, Ltd. ("LG Chem") to develop bio-propylene for renewable chemicals using Gevo's Ethanol-to-Olefins ("ETO") technology. As the contractually promised intellectual properties ("IP") are not individually distinct, the Company combined each individual IP noted in the contract into a bundle of IP ("IP Rights") that is distinct and accounted for all of the IP Rights promised in the contract as a single performance obligation. The IP Rights granted were "functional IP rights" that have significant standalone functionality. The Company's subsequent activities do not substantively change that functionality and do not significantly affect the utility of the IP to which the licensee has rights. The Company has no further obligation with respect to the grant of IP Rights, including no expressed or implied obligation to maintain or upgrade the technology, or provide future support or services. Licensees legally obtain control of the IP Rights upon execution of the contract. As such, the earnings process is complete and revenue is recognized upon the execution of the contract, when collectability is probable and all other revenue recognition criteria have been met.

Other Hydrocarbon Revenue

The Company recorded limited revenues from its development-scale plant, the Luverne Facility, during the three and nine months ended September 30, 2023 and 2022. These revenues were promotional in nature and from customer contracts for ethanol sales and related products and hydrocarbon revenues, which included SAF, isooctene, and isooctane. These products were sold mostly on a free-on-board shipping point basis (recognized at a point in time), were independent transactions, did not provide post-sale support or promises to deliver future goods, and were single performance obligations.

The following table displays the Company's revenue by major source based on product type (in thousands):

Major Goods/Service Line	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Renewable natural gas commodity	\$ 187	\$ 309	\$ 457	\$ 309
Environmental attribute revenue	4,330	—	10,640	—
Licensing and development revenue	—	—	1,300	—
Other hydrocarbon revenue - ethanol, isooctane, IBA	11	—	429	321
Total operating revenue	<u>\$ 4,528</u>	<u>\$ 309</u>	<u>\$ 12,826</u>	<u>\$ 630</u>

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3. Asset Impairment

During the three and nine months ended September 30, 2022, the Company recorded a \$24.7 million impairment loss on long-lived assets, to reduce the carrying value of certain property, plant, and equipment, and a leased right of use ("ROU") asset, at the Agri-Energy, LLC ("Agri-Energy") segment to its fair value. The impairments recorded to date relate to the determination to suspend production at the Luverne Facility and shift the plant into an idled, care and maintenance status during the three months ended September 30, 2022. As a result of this change in use, combined with a sustained history of operating losses, the Company assessed that indicators of impairment were present for long-lived assets within its Agri-Energy reporting segment. The Company therefore performed impairment testing and determined that, as of September 30, 2022, the carrying amounts of certain property plant and equipment, and the leased ROU asset exceeded estimated fair values. The Company estimated the fair value of these asset groups generally using a cost approach which is based on replacement or reproduction costs of the assets and is considered a Level 2 measurement and recorded a corresponding impairment loss under Operating Expenses within the Consolidated Statements of Operations.

4. Net Loss Per Share

Basic net loss per share is calculated based on the weighted average number of common shares outstanding for the period. Diluted net loss per share is calculated based on the assumption that stock options and other dilutive securities outstanding, which have an exercise price less than the average market price of the Company's common shares during the period, would have been exercised on the later of the beginning of the period or the date granted, and that the funds obtained from the exercise were used to purchase common shares at the average market price during the period. None of the Company's stock options or other dilutive securities are considered to be dilutive in periods with net losses.

The effect of the Company's dilutive securities is calculated using the treasury stock method and only those instruments that result in a reduction in net income per common share are included in the calculation. Diluted net loss per share excluded common stock equivalents because the effect of their inclusion would be anti-dilutive or would decrease the reported net loss per share. Therefore 83,988, 83,733, 80,954, and 80,846 of dilutive common stock equivalents have been excluded for the three and nine months ended September 30, 2023 and 2022, respectively, as the Company is in a net loss position. See Notes 15 and 19 for all outstanding options and warrants that were not included in the computation of diluted weighted average common shares outstanding, as the exercise price of the options and warrants exceeded the average price of the Company's common stock during the reporting period, and therefore are anti-dilutive.

Basic and diluted net loss per share is calculated as follows (net loss in thousands):

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>
Net loss	\$ (15,700)	\$ (43,786)	\$ (47,738)	\$ (72,620)
Basic weighted-average shares outstanding	239,537,811	236,649,805	238,100,986	216,255,710
Net loss per share - basic and diluted	<u>\$ (0.07)</u>	<u>\$ (0.19)</u>	<u>\$ (0.20)</u>	<u>\$ (0.34)</u>

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5. Marketable Securities

The Company's investments in marketable securities are stated at fair value and are available for sale. During the nine months ended September 30, 2023, all remaining investments in marketable securities matured with no realized gain or loss. The following table summarizes the Company's investments in marketable securities (in thousands) as of:

	December 31, 2022		
	Amortized Cost Basis	Gross Unrealized Losses	Fair Value
Marketable securities (current)			
U.S. Treasury notes	\$ 56,418	\$ (344)	\$ 56,074
U.S. Government-sponsored enterprise securities	112,030	(696)	111,334
Total marketable securities (current)	<u>\$ 168,448</u>	<u>\$ (1,040)</u>	<u>\$ 167,408</u>

The cost of securities sold is based upon the specific identification method. The Company did not record investment income during the three months ended September 30, 2023, and recorded investment income from marketable securities totaling \$0.8 million for the nine months ended September 30, 2023, and \$1.2 million and \$3.9 million for the three and nine months ended September 30, 2022, respectively. It is included in "Interest and investment income" in the Consolidated Statements of Operations.

6. Restricted Cash

As of September 30, 2023, current restricted cash of \$77.8 million consists of amounts held as collateral for letters of credit to provide financing support for development and construction of the NW Iowa RNG and NZ1 projects.

The Company entered into an irrevocable direct pay letter of credit (the "Bond Letter of Credit") with Citibank N.A ("Citibank") in April 2021 to support the 2021 Bonds (as defined below) for the development and construction of NW Iowa RNG. See Note 14, Debt, for additional information on the 2021 Bonds. The Bond Letter of Credit has a 0.5% annual fee and expires April 4, 2024 (unless terminated earlier). The Company deposited \$71.2 million with Citibank as restricted cash to secure any amounts drawn under the Bond Letter of Credit. The Company is entitled to receive interest income on the restricted cash. As of September 30, 2023, no amounts have been drawn under the Bond Letter of Credit.

In September 2022, the Company entered into a Pledge and Assignment agreement with Citibank to provide credit support in the form of a letter of credit (the "Power Letter of Credit") from Citibank to a local electric utility company in order to induce the utility company to design and construct the power transmission and distribution facilities that will serve NZ1. The Company deposited \$6.6 million of restricted cash in an account with Citibank to collateralize the Power Letter of Credit, which has a 0.3% annual fee and expires September 30, 2024 (unless terminated earlier). As of September 30, 2023, no amounts have been drawn under the Power Letter of Credit.

7. Prepaid Expenses and Other Current Assets

The following table sets forth the components of the Company's prepaid expenses and other current assets (in thousands) as of:

	September 30, 2023	December 31, 2022
Prepaid insurance	\$ 693	\$ 911
Interest receivable	1,396	514
Prepaid feedstock	1,105	1,097
Other current assets	838	512
Total prepaid expenses and other current assets	<u>\$ 4,032</u>	<u>\$ 3,034</u>

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8. Leases, Right-of-Use Assets and Related Liabilities

The Company is party to an operating lease contract for the Company’s office and research facility in Englewood, Colorado, which expires in January 2029, and an operating lease contract for additional office space in Albuquerque, New Mexico, which expires in 2025. These leases contain options to extend the leases, which management does not reasonably expect to exercise, so they are not included in the length of the terms. The Company also has one production line piece of equipment with an operating lease that expires in 2024.

The Company has four finance leases for land under arrangements related to NW Iowa RNG. Under these contracts, the Company leases land from dairy farmers on which it has built three anaerobic digesters, and related equipment and pipelines to condition raw biogas from cow manure provided by the farmers. The partially conditioned biogas is transported from the three digester sites to a central gas upgrade system located at the fourth site that upgrades the biogas to pipeline-quality RNG for sale. These leases expire at various dates between 2031 and 2050.

The following tables present the (i) other quantitative information and (ii) future minimum payments under non-cancelable financing and operating leases as they relate to the Company’s leases (in thousands, except for weighted averages):

	Nine Months Ended September 30,	
	2023	2022
Other Information		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from finance leases	\$ 22	\$ 29
Operating cash flows from operating leases	\$ 236	\$ 625
Finance cash flows from finance leases	\$ 2	\$ 2
Right-of-use asset obtained in exchange for new operating lease liabilities	\$ 199	\$ —
Weighted-average remaining lease term, finance lease (months)	309	310
Weighted-average remaining lease term, operating leases (months)	65	61
Weighted-average discount rate - finance leases ⁽¹⁾	12 %	11 %
Weighted-average discount rate - operating leases ⁽¹⁾	6 %	5 %

(1) Our leases do not provide an implicit interest rate; we calculate the lease liability at lease commencement as the present value of unpaid lease payments using our estimated incremental borrowing rate. The incremental borrowing rate represents the rate of interest that we would have to pay to borrow an amount equal to the lease payments on a collateralized basis over a similar term and is determined using a portfolio approach based on information available at the commencement date of the lease.

Year Ending December 31,	Operating Leases	Finance Leases
2023 (remaining)	\$ 325	\$ 22
2024	386	30
2025	398	25
2026	367	25
2027	335	26
2028 and thereafter	344	549
Total	2,155	677
Less: amounts representing present value discounts	258	450
Total lease liabilities	1,897	227
Less: current portion	521	28
Non-current portion	\$ 1,376	\$ 199

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9. Inventories

The following table sets forth the components of the Company's inventory balances (in thousands) as of:

	<u>September 30, 2023</u>	<u>December 31, 2022</u>
Raw materials	\$ 126	\$ 168
Finished goods		
SAF, Isooctane, Isooctene and other	1,175	1,581
Work in process		
Environmental attributes, net of allowance of \$792 and \$2,378, respectively	2,001	4,193
Jet fuel	—	51
Spare parts	386	354
Total inventories	<u>\$ 3,688</u>	<u>\$ 6,347</u>

10. Property, Plant and Equipment

The following table sets forth the Company's property, plant and equipment by classification (in thousands) as of:

	<u>September 30, 2023</u>	<u>December 31, 2022</u>
Land	\$ 6,505	\$ 6,452
Plant facilities and infrastructure	77,305	76,900
Machinery and equipment	95,016	87,248
Furniture and office equipment	2,828	2,977
Software	2,374	2,217
Construction in progress	137,231	81,019
Total property, plant and equipment	<u>321,259</u>	<u>256,813</u>
Less: accumulated depreciation and amortization	<u>(83,142)</u>	<u>(71,639)</u>
Property, plant and equipment, net	<u>\$ 238,117</u>	<u>\$ 185,174</u>

The Company recorded depreciation expenses of \$5.2 million and \$13.3 million for the three and nine months ended September 30, 2023, respectively, as compared with \$1.3 million and \$3.6 million for the same periods ended September 30, 2022.

Construction in progress includes \$33.8 million for Gevo, \$13.5 million for the Agri-Energy segment ("Agri-Energy") related to a fractionation and hydrocarbon skid, and \$89.8 million for NZ1 at September 30, 2023. Construction in progress includes \$25.9 million for Gevo, \$11.4 million for Agri-Energy, \$1.0 million for NW Iowa RNG and \$42.7 million for NZ1 at December 31, 2022. Construction in progress is not subject to depreciation until the assets are placed into service. At September 30, 2023, construction in progress included accruals of \$9.1 million.

Borrowing costs. Borrowing costs directly attributable to acquisition and construction of an asset are capitalized until it is completed and ready for its intended use, and thereafter are recognized in profit or loss for the period. The Company did not capitalize any interest expense during the nine months ended September 30, 2023, and capitalized \$1.2 million of interest expense for the nine months ended September 30, 2022.

11. Intangible Assets

Identifiable intangible assets consist of patents, which management evaluates to determine whether they (i) support current products, (ii) support planned research and development, or (iii) prevent others from competing with Gevo's products.

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The following tables set forth the Company's intangible assets by classification (in thousands) as of:

	September 30, 2023			Weighted-Average Useful Life (Years)
	Gross Carrying Amount	Accumulated Amortization	Identifiable Intangible Assets, net	
Patents	\$ 4,580	\$ (1,475)	\$ 3,105	7.4
Defensive assets	4,900	(1,189)	3,711	8.4
Intangible assets	\$ 9,480	\$ (2,664)	\$ 6,816	7.9

	December 31, 2022			Weighted-Average Useful Life (Years)
	Gross Carrying Amount	Accumulated Amortization	Identifiable Intangible Assets, Net	
Patents	\$ 4,580	\$ (1,039)	\$ 3,541	7.4
Defensive assets	4,900	(750)	4,150	8.4
Intangible assets	\$ 9,480	\$ (1,789)	\$ 7,691	7.9

The Company recorded amortization expense of \$0.3 million, \$0.9 million, \$0.4 million, and \$1.0 million for the three and nine months ended September 30, 2023 and 2022, respectively.

The following table details the estimated amortization of intangible assets as of September 30, 2023 (in thousands):

Year Ending December 31,	Patents	Defensive Assets	Total
2023 (remaining)	\$ 146	\$ 146	\$ 292
2024	582	586	1,168
2025	582	586	1,168
2026	582	586	1,168
2027	582	586	1,168
2028 and thereafter	631	1,221	1,852
Total intangible assets	\$ 3,105	\$ 3,711	\$ 6,816

12. Deposits and Other Assets

The following table sets forth the components of the Company's deposits and other assets (in thousands) as of:

	September 30, 2023	December 31, 2022
Deposits ⁽¹⁾	\$ 166	\$ 276
Prepaid feedstock ⁽²⁾	680	934
Equity interest ⁽³⁾	1,500	1,500
Exclusivity fees ⁽⁴⁾	583	2,522
Deposits receivable ⁽⁵⁾	695	—
Other assets, net ⁽⁶⁾	8,135	8,460
Total deposits and other assets	\$ 11,759	\$ 13,692

(1) Deposits for services and products.

(2) Prepaid feedstock fees, non-current, for the production of RNG.

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- (3) The Company directly holds a 4.3% interest in the Series A Preferred Stock of Zero6 Clean Energy Assets, Inc. (“Zero6”), formerly Juhl Clean Energy Assets, Inc., which is not a publicly listed entity with a readily determinable fair value. The Company therefore measures the securities at cost. Recent observable equity raises indicated no impairment issues. This ownership interest is also pledged as collateral against two future obligations to Rock County Wind Fuel, LLC (“RCWF”), a Zero6 subsidiary, see Note 17, Commitments and Contingencies, for additional information.
- (4) Axens will provide certain alcohol-to-SAF technologies and services exclusively provided to the Company which may be offset against future license fees subject to the delivery of a process design package.
- (5) Reimbursable deposits with ZEDI for the design, development and construction of the wind and hydrogen power generation facilities for NZ1.
- (6) Payments which were allocated to the non-lease fuel supply, primarily related to sand separation systems, to support NW Iowa RNG fuel supply agreements prior to commencement of operations, being amortized over the life of the project.

13. Accounts Payable and Accrued Liabilities

The following table sets forth the components of the Company’s accounts payable and accrued liabilities in the Consolidated Balance Sheets (in thousands) as of:

	<u>September 30, 2023</u>	<u>December 31, 2022</u>
Accounts payable	\$ 9,610	\$ 5,009
Accrued liabilities	13,086	12,594
Accrued payroll and related benefits	5,197	5,105
Accrued sales and use tax	2	2,052
Total accounts payable and accrued liabilities	<u>\$ 27,895</u>	<u>\$ 24,760</u>

14. Debt

2021 Bond Issuance

On April 15, 2021, on behalf of Gevo NW Iowa RNG, LLC, the Iowa Finance Authority (the “Authority”) issued \$68,155,000 of its non-recourse Solid Waste Facility Revenue Bonds (Gevo NW Iowa RNG, LLC Renewable Natural Gas Project), Series 2021 (Green Bonds) (the “2021 Bonds”) for NW Iowa RNG. The bond proceeds were used as a source of construction financing alongside equity from the Company. The 2021 Bonds were issued under a Trust Indenture dated April 1, 2021 (the “Indenture”) between the Authority and Citibank, N.A. as trustee (the “Trustee”). The 2021 Bonds mature April 1, 2042. The bonds bear interest at 1.5% per annum during the Initial Term Rate Period (as defined in the Indenture), payable semi-annually on January 1 and July 1 of each year. The effective interest rate is 1.0%. The 2021 Bonds are supported by the \$71.2 million Bond Letter of Credit; see Note 6, Restricted Cash. The Trustee can draw sufficient amounts on the Bond Letter of Credit to pay the principal and interest until the first mandatory tender date of April 1, 2024. The 2021 Bonds became callable and re-marketable on October 1, 2022. If the 2021 Bonds have not been called and re-marketed by the first mandatory tender date, the Trustee may draw on the Bond Letter of Credit to repay the 2021 Bonds in their entirety at the purchase price. As of September 30, 2023, no amounts have been drawn under the Bond Letter of Credit.

The 2021 Bonds were issued at a premium of \$0.8 million and debt issuance costs were \$3.0 million. The bond debt is classified as current debt and is presented net of the premium and issuance costs, which are being amortized over the life of the 2021 Bonds using the interest method. As of September 30, 2023 and December 31, 2022, the premium balance and the debt issuance cost net of amortization were \$0.2 million, \$0.5 million, \$0.4 million, and \$1.3 million, respectively.

Loans Payable

In April 2020, the Company and Agri-Energy each entered into a loan agreement with Live Oak Banking Company, pursuant to which the Company and Agri-Energy obtained loans from the Small Business Administration’s Paycheck Protection Program (“SBA PPP”) totaling \$1.0 million in the aggregate (the “SBA Loans”).

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In April 2021, the entire balance of \$0.5 million of the Company’s and \$0.1 million of Agri-Energy’s loans and accrued interest obtained through the SBA PPP were forgiven. The remaining SBA Loan for Agri-Energy totals \$0.2 million, bears interest at 1.0% per annum and matures in April 2025. Monthly payments of \$8,230, including interest, began on June 5, 2021, and are payable through April 2025.

The summary of the Company’s debt is as follows (in thousands) as of:

	<u>Interest Rate</u>	<u>Maturity Date</u>	<u>September 30, 2023</u>	<u>December 31, 2022</u>
2021 Bonds, net	1.5%	April 2042	\$ 67,780	\$ 67,223
SBA Loans	1.0%	April 2025	143	224
Equipment	4% to 5%	December 2023 to December 2024	48	94
Total debt			67,971	67,541
Less: current portion			(67,917)	(159)
Non-current portion			<u>\$ 54</u>	<u>\$ 67,382</u>

Future payments for the Company’s debt are as follows (in thousands):

<u>Year Ending December 31,</u>	<u>Total Debt</u>
2023 (remaining)	\$ 32
2024	67,910
2025	29
Total debt	<u>\$ 67,971</u>

15. Stock-Based Compensation

Equity incentive plans. In February 2011, the Company’s stockholders approved the Gevo, Inc. 2010 Stock Incentive Plan (as amended and restated to date, the “2010 Plan”), and the Employee Stock Purchase Plan (the “ESPP”).

The 2010 Plan provides for the grant of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock awards, restricted stock units and other equity awards to employees and directors of the Company. In May 2023, upon approval of the stockholders at the 2021 Annual Meeting of Stockholders, the 2010 Plan was amended and restated, which increased the number of shares of common stock reserved for issuance under the 2010 Plan to 37,980,074 shares. At September 30, 2023, 13,739,024 shares were available for future issuance under the 2010 Plan.

Stock-based compensation expense. The Company records stock-based compensation expense during the requisite service period for share-based payment awards granted to employees and non-employees.

The following table sets forth the Company’s stock-based compensation expense for the periods indicated (in thousands):

	<u>Three Months Ended September 30,</u>		<u>Nine Months Ended September 30,</u>	
	<u>2023</u>	<u>2022</u>	<u>2023</u>	<u>2022</u>
<u>Equity Classified Awards</u>				
Cost of production	\$ 25	\$ 208	\$ 37	\$ 599
General and administrative	4,239	3,910	11,480	10,992
Other	(132)	243	1,235	1,034
Total equity classified awards	<u>4,132</u>	<u>4,361</u>	<u>12,752</u>	<u>12,625</u>
<u>Liability Classified Awards</u>				
General and administrative	—	(267)	—	(460)
Other	—	126	—	—
Total liability classified awards	<u>—</u>	<u>(141)</u>	<u>—</u>	<u>(460)</u>
Total stock-based compensation	<u>\$ 4,132</u>	<u>\$ 4,220</u>	<u>\$ 12,752</u>	<u>\$ 12,165</u>

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Stock option award activity. Stock option activity under the Company's stock incentive plans and changes during the nine months ended September 30, 2023, were as follows:

	Number of Options	Weighted- Average Exercise Price ⁽¹⁾	Weighted- Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Options outstanding at December 31, 2022	5,945,321	\$ 4.65	9.1	\$ —
Granted	3,178,148	\$ 1.69		\$ —
Canceled or forfeited	(769,529)	\$ 3.79		\$ —
Exercised	—	\$ —		\$ —
Options outstanding at September 30, 2023	<u>8,353,940</u>	\$ 3.61	8.7	\$ —
Options vested and expected to vest at September 30, 2023	<u>3,332,229</u>	\$ 4.86	7.2	\$ —

(1) The exercise price of options outstanding range from \$1.59 to \$876.00 as of September 30, 2023. The higher end of the range is due to the impact of several reverse stock splits during the years 2015 to 2018.

As of September 30, 2023, the total unrecognized compensation expense, net of forfeitures, relating to stock options was \$10.4 million, which is expected to be expensed over the remaining weighted-average recognition period of approximately 2.1 years.

Restricted stock. Non-vested restricted stock awards and the changes during the nine months ended September 30, 2023, were as follows:

	Number of Shares	Weighted- Average Grant-Date Fair Value
Outstanding at December 31, 2022	5,254,457	\$ 3.94
Granted	3,897,010	\$ 1.47
Vested and issued	(2,404,742)	\$ 4.08
Canceled or forfeited	(823,428)	\$ 3.44
Non-vested at September 30, 2023	<u>5,923,297</u>	\$ —

As of September 30, 2023, the total unrecognized compensation expense, net of forfeitures, relating to restricted stock awards was \$12.3 million, which is expected to be expensed over the remaining weighted-average recognition period of approximately 2.0 years. As of September 30, 2023, there are no liability-classified restricted stock awards.

16. Income Taxes

The Company has incurred operating losses since inception; therefore, no provision for income taxes was recorded and all related deferred tax assets are fully reserved. We continue to assess the impact of a deferred tax asset as it relates to income taxes.

17. Commitments and Contingencies

Legal Matters. From time to time, the Company has been, and may again become, involved in legal proceedings arising in the ordinary course of its business. The Company is not presently a party to any litigation and is not aware of any pending or threatened litigation against the Company that it believes could have a material adverse effect on its business, operating results, financial condition or cash flows.

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Indemnifications. In the ordinary course of its business, the Company makes certain indemnities under which it may be required to make payments in relation to certain transactions. As of September 30, 2023, the Company did not have any liabilities associated with indemnities.

In addition, the Company indemnifies its officers and directors for certain events or occurrences, subject to certain limitations. The duration of these indemnifications, commitments, and guarantees varies and, in certain cases, is indefinite. The maximum amount of potential future indemnification is unlimited; however, the Company has a director and officer insurance policy that may enable it to recover a portion of any future amounts paid. The Company accrues losses for any known contingent liability, including those that may arise from indemnification provisions, when future payment is probable. No such losses have been recorded to date.

Environmental Liabilities. The Company's operations are subject to environmental laws and regulations adopted by various governmental authorities in the jurisdictions in which it operates. These laws require the Company to investigate and remediate the effects of the release or disposal of materials at its locations. Accordingly, the Company has adopted policies, practices and procedures in the areas of pollution control, occupational health and the production, handling, storage and use of hazardous materials to prevent material environmental or other damage, and to limit the financial liability which could result from such events. Environmental liabilities are recorded when the Company's liability is probable, and the costs can be reasonably estimated. No environmental liabilities have been recorded as of September 30, 2023.

Fuel Supply Commitment. The Company has three long-term fuel supply contracts to source feedstock for the anaerobic digesters at the NW Iowa RNG project. These contracts provide an annual amount of feedstock to be used in the production of RNG.

PRAJ Commitment. In June 2021 the Company contracted with a manufacturer in India to build a fractionation and hydrocarbon skid for \$10.2 million. The remaining commitment for the contract is \$1.0 million as of September 30, 2023. In addition, the Company has committed to pay \$0.6 million in engineering fees to PRAJ subject to certain project milestones on Net-Zero Projects.

Zero6 Commitments. In September 2022, the Company entered into a development agreement with Zero6 to construct and operate a wind project for the provision of electric energy for NZ1. Pursuant to the agreement, the Company has committed to pay Zero6 total development charges of \$8.6 million, comprised of advanced development fee payments of \$0.9 million, certain reimbursable costs of \$1.2 million, and \$6.5 million upon completion of the project. The Company is not contractually obligated for the specified development charges until certain milestones are met in future periods, and upon completion of the project. Further, the Company has committed to remitting \$28.5 million to facilitate the construction of the project, which will be fully reimbursed upon completion of the project. Gevo has contractual priority liens against the equipment and constructed facilities under the contracts. See Footnote 20 below for further information.

Additionally, the Company's investment in Zero6, see Note 12 above, is pledged separately as collateral for two commitments for the purchase of wind electricity for the Luverne Facility, as well as the purchase of 100% of RCWF's renewable energy credits. Gevo has a commitment to purchase all of RCWF's electricity. The portion not used by the Luverne Facility is charged to the Company at a lower price.

The estimated commitments as of September 30, 2023, and thereafter are shown below (in thousands):

	December 31,						2028 and thereafter	Total
	2023 (remaining)	2024	2025	2026	2027	2028		
Fuel Supply Payments	\$ 550	\$ 3,904	\$ 1,702	\$ 1,718	\$ 2,060	\$ 28,263	\$ 38,197	
Zero6 Commitment	4,386	24,453	6,670	—	—	—	35,509	
PRAJ Commitment	953	558	—	—	—	—	1,511	
Renewable Energy Credits	36	144	144	145	144	1,779	2,392	
Electricity Above Use (Est.)	129	522	534	545	557	7,926	10,213	
Total	\$ 6,054	\$ 29,581	\$ 9,050	\$ 2,408	\$ 2,761	\$ 37,968	\$ 87,822	

GEVO, INC.
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18. Fair Value Measurements

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

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

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

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

The carrying value and fair value, by fair value hierarchy, of the Company’s financial instruments at September 30, 2023, and December 31, 2022 are as follows (in thousands):

	<u>Fair Value Measurements at September 30, 2023</u>			
	<u>Fair Value at September 30, 2023</u>	<u>Quoted Prices in Active Markets for Identical Assets (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
Cash and cash equivalents ⁽¹⁾	\$ 323,510	\$ 323,510	\$ —	\$ —

	<u>Fair Value Measurements at December 31, 2022</u>			
	<u>Fair Value at December 31, 2022</u>	<u>Quoted Prices in Active Markets for Identical Assets (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
Cash and cash equivalents ⁽¹⁾	\$ 237,125	\$ 237,125	\$ —	\$ —
Marketable securities	\$ 167,408	\$ 167,408	\$ —	\$ —

(1) Cash and cash equivalents includes \$308.2 million and \$200.7 million invested in U.S. government money market funds as of September 30, 2023 and December 31, 2022, respectively.

The Company had no transfers of assets or liabilities between fair value hierarchy levels between December 31, 2022, and September 30, 2023.

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For the 2021 Bonds, the fair values are estimated using the Black-Derman-Toy interest rate lattice framework. The effective maturity of the 2021 Bonds was assumed to be April 1, 2024 (three years from issuance) with repayment of 100% of principal on that date. The impact of the Company's optional redemption feature, effective October 1, 2022, is appropriately captured by the Black-Derman-Toy interest rate lattice. The carrying values and estimated fair values of the 2021 Bonds as of September 30, 2023, are summarized as follows (in thousands):

	Carrying Value	Estimated Fair Value
2021 Bonds	\$ 67,780	\$ 66,842

19. Stockholders' Equity

Share Issuances

In February 2018, the Company commenced an at-the-market offering program, which allows it to sell and issue shares of its common stock from time to time. In 2021, the at-the-market offering program was amended to provide a total capacity of \$500.0 million. As of September 30, 2023, the Company has remaining capacity to issue up to approximately \$360.6 million of common stock under the at-the-market offering program.

In June 2022, the Company completed a registered direct offering (the "June 2022 Offering") of an aggregate of 33,333,336 shares of the Company's common stock at a price of \$4.50 per share, accompanied by Series 2022-A warrants to purchase an aggregate of 33,333,336 shares of the Company's common stock (each, a "Series 2022-A Warrant") pursuant to a securities purchase agreement with certain institutional and accredited investors. The Series 2022-A Warrants are exercisable for a term of five years from the date of issuance at an exercise price of \$4.37 per share. As of September 30, 2023, none of the Series 2022-A Warrants had been exercised.

The net proceeds to the Company from the June 2022 Offering were \$139.2 million, after deducting placement agent's fees, advisory fees and other offering expenses payable by the Company, and assuming none of the Series 2022-A Warrants issued in the June 2022 Offering are exercised for cash. The Company intends to use the net proceeds from the June 2022 Offering to fund capital projects, working capital and for general corporate purposes.

Stock Repurchase Program

On May 30, 2023, the Company authorized a stock repurchase program, under which it may repurchase up to \$25 million of its common stock. The primary goal of the repurchase program is to allow the Company to opportunistically repurchase shares, while maintaining the Company's ability to fund its development projects. Under the stock repurchase program, the Company may repurchase shares from time to time in the open market or through privately negotiated transactions. The timing, volume and nature of stock repurchases, if any, will be in the Company's sole discretion and will be dependent on market conditions, applicable securities laws, and other factors. The stock repurchase program may be suspended or discontinued at any time by the Company and does not have an expiration date.

The Company did not repurchase any shares of common stock under the stock repurchase program during the three and nine months ended September 30, 2023.

Warrants

In addition to the Series 2022-A Warrants, the Company has warrants outstanding that were issued in conjunction with a registered direct offering in August 2020 (the "Series 2020-A Warrants"). The Company evaluated the Series 2022-A Warrants and Series 2020-A Warrants for liability or equity classification and determined that equity treatment was appropriate because both the Series 2022-A Warrants and Series 2020-A Warrants do not meet the definition of liability instruments.

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The Series 2022-A Warrants and Series 2020-A Warrants are classified as a component of permanent equity because they are freestanding financial instruments that are legally detachable and separately exercisable from the shares of common stock with which they were issued, are immediately exercisable and will expire five years from the date of issuance, do not embody an obligation for the Company to repurchase its shares, and permit the holders to receive a fixed number of shares of common stock upon exercise. In addition, the Series 2022-A Warrants and Series 2020-A Warrants do not provide any guarantee of value or return. The Company valued the Series 2022-A Warrants and Series 2020-A Warrants at issuance using the Black-Scholes option pricing model. The fair value at the issuance date of the Series 2022-A Warrants was \$92.9 million with the key inputs to the valuation model including a weighted average volatility of 151.1%, a risk-free rate of 2.86% and an expected term of five years. The fair value at the issuance date of the Series 2020-A Warrants was \$8.3 million with the key inputs to the valuation model including a weighted average volatility of 130%, a risk-free rate of 0.30% and an expected term of five years.

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

On February 17, 2022, the remaining Series K warrants expired with 7,126 unexercised warrants.

The following table sets forth information pertaining to shares issued upon the exercise of warrants:

	Issuance Date	Expiration Date	Exercise Price as of September 30, 2023	Shares Underlying Warrants on Issuance Date	Shares Issued upon Warrant Exercises as of September 30, 2023	Shares Underlying Warrants Outstanding as of September 30, 2023
Series 2020-A Warrants ⁽¹⁾	7/6/2020	7/6/2025	\$ 0.60	30,000,000	29,914,069	85,931
Series 2022-A Warrants ⁽¹⁾	6/8/2022	6/7/2027	\$ 4.37	33,333,336	—	33,333,336
Total Warrants				63,333,336	29,914,069	33,419,267

(1) Equity-classified warrants.

During the nine months ended September 30, 2023, no warrants were exercised.

20. Variable Interest Entities

The Company has entered into agreements with various SPEs to facilitate the development and construction of facilities to provide carbon neutral power to NZ1. These SPEs are structured as a limited liability companies.

Consolidated VIEs

During September 2022 and February 2023, the Company entered into agreements with ZEDI, a national clean energy expert that provides expertise in capital management, development, engineering, and asset management, to develop and construct facilities to provide carbon neutral power to NZ1 via the two Project LLCs: KCWF and DRH, respectively.

Each Project LLC is currently funded via advances for certain long lead equipment items from Gevo. The Company has made certain refundable project advances to the Project LLCs, to induce to design and construct the power generation, transmission and distribution facilities that will serve NZ1.

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Each Project LLC is a VIE, and the Company holds a variable interest in each Project LLC, for which the Company is the primary beneficiary. The Project LLCs are a VIE because their equity is insufficient to maintain its on-going collateral requirements without additional financial support from the Company. The Company is the primary beneficiary of the VIEs, and the VIEs are required to be consolidated on the Consolidated Balance Sheet, because the Company has a controlling financial interest in the VIEs and has both the power to direct the activities of the VIEs that most significantly impact the economic performance of the VIEs as well as the obligation to absorb losses or the right to receive benefits from the VIEs that could potentially be significant to the VIEs. As the primary beneficiary of these VIEs, the VIEs' assets, liabilities, and results of operations are included in the Company's consolidated financial statements as of, and for the nine months ended, September 30, 2023.

The following table summarizes the carrying amount of the VIEs' assets and liabilities included in the Company's Consolidated Balance Sheets at September 30, 2023 and December 31, 2022 (in thousands):

	<u>September 30, 2023</u>	<u>December 31, 2022</u>
Assets		
Current assets		
Cash and cash equivalents	\$ 15	\$ —
Total current assets	15	—
Property, plant and equipment, net	33,944	8,302
Total assets	<u>\$ 33,959</u>	<u>\$ 8,302</u>
Liabilities		
Current liabilities		
Accounts payable and accrued liabilities	\$ 6,674	\$ —
Total current liabilities	6,674	—
Total liabilities	<u>\$ 6,674</u>	<u>\$ —</u>

All assets in the above table can only be used to settle obligations of the consolidated VIE to which the respective assets relate. Liabilities are nonrecourse obligations. Amounts presented in the table above are adjusted for intercompany eliminations.

21. Segments

Operating segments are defined as components of an entity for which discrete financial information is available that is regularly reviewed by the Chief Operating Decision Maker ("CODM") in deciding how to allocate resources to an individual segment and in assessing performance. The Company's Chief Executive Officer is the CODM. The CODM reviews financial information presented on a consolidated basis for the purpose of making operating decisions, allocating resources, and evaluating financial performance. As such, management has determined that the Company has organized its operations and activities into three reportable segments: (i) Gevo segment; (ii) Agri-Energy segment; and (iii) Renewable Natural Gas segment. Transactions between segments are eliminated in consolidation.

Gevo segment. The Gevo segment is responsible for all research and development activities related to transforming renewable energy into energy-dense liquid hydrocarbons that can be used as renewable fuels, such as SAF, with the potential to achieve a "net-zero" GHG footprint; commercial opportunities for other renewable hydrocarbon products, such as hydrocarbons for gasoline blendstocks and diesel fuel; ingredients for the chemical industry, such as ethylene and butenes; plastics and materials; and other chemicals. The Gevo segment also develops, maintains and protects its intellectual property portfolio, provides corporate oversight services, and is responsible for development and construction of our Net-Zero Projects.

Agri-Energy segment. The Agri-Energy segment is currently responsible for the operation of the Company's Luverne Facility and the development and optimization of the production of isobutanol, ethanol and related products.

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Renewable Natural Gas segment. The Renewable Natural Gas segment produces pipeline quality methane gas captured from dairy cow manure.

	Three Months Ended September 30, 2023			
(in thousands)	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Revenues	\$ 11	\$ —	\$ 4,517	\$ 4,528
Loss from operations	\$ (17,382)	\$ (3,114)	\$ (230)	\$ (20,726)
Acquisitions of property, plant, and equipment	\$ 18,997	\$ 217	\$ 1,670	\$ 20,884

	Three Months Ended September 30, 2022			
	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Revenues	\$ —	\$ —	\$ 309	\$ 309
Loss from operations	\$ (15,480)	\$ (27,948)	\$ (498)	\$ (43,926)
Acquisitions of patents, property, plant, and equipment	\$ 20,016	\$ 4,351	\$ 6,305	\$ 30,672

	Nine Months Ended September 30, 2023			
	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Revenues	\$ 1,729	\$ —	\$ 11,097	\$ 12,826
Loss from operations	\$ (47,284)	\$ (9,503)	\$ (3,711)	\$ (60,498)
Acquisitions of property, plant, and equipment	\$ 55,044	\$ 240	\$ 6,129	\$ 61,413

	Nine Months Ended September 30, 2022			
	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Revenues	\$ 81	\$ 240	\$ 309	\$ 630
Loss from operations	\$ (40,629)	\$ (34,869)	\$ (498)	\$ (75,996)
Acquisitions of patents, property, plant, and equipment	\$ 39,283	\$ 3,905	\$ 33,649	\$ 76,837

	September 30, 2023			
	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Total assets	\$ 538,547	\$ 29,397	\$ 101,577	\$ 669,521

	December 31, 2022			
	Gevo	Agri-Energy	Renewable Natural Gas	Consolidated
Total assets	\$ 573,057	\$ 34,440	\$ 93,251	\$ 700,748

Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

Forward-Looking Statements

This Quarterly Report on Form 10-Q (this “Report”) contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). When used anywhere in this Report, the words “expect,” “believe,” “anticipate,” “estimate,” “intend,” “plan” and similar expressions are intended to identify forward-looking statements. These statements relate to future events or our future financial or operational performance and involve known and unknown risks, uncertainties and other factors that could cause our actual results, levels of activity, performance or achievements to differ materially from those expressed or implied by these forward-looking statements. These statements reflect our current views with respect to future events and are based on assumptions and subject to risks and uncertainties. These forward-looking statements include, among other things, statements about: our financial condition, our results of operation and liquidity, our ability to finance, develop, and construct our Net-Zero Projects (as defined below), as well as other growth projects, our ability to produce our products, our ability to meet production, financial and operational guidance, our ability to generate revenue from our executed contracts, our strategy to pursue low-carbon or “net-zero” carbon renewable fuels for sale into California and elsewhere, our ability to replace our fossil-based energy sources with renewable energy sources at our Net-Zero Projects and elsewhere, our ability and plans to construct greenfield commercial hydrocarbon facilities to produce sustainable aviation fuel (“SAF”) and other products, our ability to raise additional funds to finance our business, our ability to perform under our existing offtake agreements and other sales agreements we may enter into in the future, our ability to successfully operate our renewable natural gas (“RNG”), also known as biogas, facilities in Iowa, our ability to produce renewable hydrocarbon products at a commercial level and at a profit, the availability of, and market prices for, government economic incentives to the renewable energy market, achievement of advances in our technology platform, the availability of suitable and cost-competitive feedstocks, our ability to gain market acceptance for our products, the expected cost-competitiveness and relative performance attributes of our products, our strategy to pursue alcohol-to-SAF development and production, additional competition and changes in economic conditions and the future price and volatility of petroleum and products derived from petroleum. Important factors could cause actual results to differ materially from those indicated or implied by forward-looking statements such as those contained in documents we have filed with the United States (“U.S.”) Securities and Exchange Commission (the “SEC”), including this Report in Item 7. “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” our Annual Report on Form 10-K for the year ended December 31, 2022 (our “2022 Annual Report”), including Item 1A. “Risk Factors” of our 2022 Annual Report and subsequent reports on Form 10-Q. All forward-looking statements in this Report are qualified entirely by the cautionary statements included in this Report and such other filings. These risks and uncertainties or other important factors could cause actual results to differ materially from results expressed or implied by forward-looking statements contained in this Report. These forward-looking statements speak only as of the date of this Report. We undertake no intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, and readers should not rely on the forward-looking statements as representing the Company’s views as of any date subsequent to the date of the filing of this Report.

Unless the context requires otherwise, in this Report the terms “Gevo”, “we,” “us,” “our” and the “Company” refer to Gevo, Inc. and its wholly owned, direct and indirect subsidiaries.

The following discussion should be read in conjunction with our unaudited consolidated financial statements and the related notes and other financial information appearing elsewhere in this Report. Readers are also urged to carefully review and consider the various disclosures made by us which attempt to advise interested parties of the factors which affect our business, including, without limitation, the disclosures in our 2022 Annual Report.

Company Overview

Gevo, Inc. (Nasdaq: GEVO), a Delaware corporation founded in 2005, is a growth-oriented company with the mission of solving greenhouse gas emissions for those sectors of the transportation industry that are not amenable to electrification or hydrogen. We believe that the market size for hydrocarbon fuels will continue to remain significant in the long-term even with the rapid adoption of electric vehicles and hydrogen technologies.

We are focused on transforming renewable energy into energy-dense liquid hydrocarbons that can be used as renewable fuels, such as SAF, with the potential to achieve a “net-zero” greenhouse gas (“GHG”) footprint. We believe that this addresses the global need of reducing GHG emissions with “drop in” sustainable alternatives to petroleum fuels. We use the Argonne National Laboratory’s Greenhouse gases, Regulated Emissions, and Energy use in Transportation model (the “GREET Model”) to measure, predict and verify GHG emissions across the life-cycle of our products. Our “net-zero” concept means the production of drop-in hydrocarbon fuels and chemicals by using sustainably grown feedstocks (e.g., low till, no-till and dry corn cultivation, or other carbohydrate sources), renewable, substantially decarbonized energy sources, and process technologies to lower GHG emissions, resulting in a net-zero carbon footprint from the full life cycle of the fuel measured from the capture of renewable carbon through the burning of the fuel.

Our primary market focus, given current demand and growing customer interest, is hydrocarbon fuels, and SAF in particular. We believe that SAF from carbohydrates to alcohol is the most economically viable approach for carbon abatement. We also have commercial solutions for other renewable hydrocarbon products, such as RNG; hydrocarbons for gasoline blendstocks and diesel fuel; ingredients for the chemical industry, such as ethylene and butenes; plastics and materials; and other chemicals. Global fuel consumption by commercial airlines continues to remain strong, with global fuel consumption at more than 100 MGPY and growing.

We believe that there is a growing and significant market demand for SAF production generally based on a number of factors, including:

- Air transportation is considered to be a hard to decarbonize segment by governments, the airlines, and others. De-fossilized jet fuel, meaning jet fuel but with a low GHG emission footprint, is expected to be important to achieve the decarbonization of the segment. The International Air Transport Association (“IATA”) 77th Annual General Meeting approved a resolution for the global air transport industry to achieve net-zero carbon emissions by the year 2050. Most recently, IATA presented roadmaps to achieve its 2050 Fly Net Zero commitment, which include SAF providing 62 percent of the carbon mitigation needed in 2050. IATA has 317 airline members, including Alaska Airlines, American Airlines, Delta Air Lines, FedEx Express, United Airlines and UPS Airlines, who have committed to spending significant amounts to mitigate the balance of emissions from their global businesses going forward.
- The U.S. Federal government continues to advance its Sustainable Aviation Fuel Grand Challenge (the “Challenge”) to meet the demand for SAF by working with stakeholders to reduce costs, enhance sustainability, and expand production and use of SAF which achieve a minimum of a 50% reduction in life cycle GHGs compared to conventional fuel. The Challenge includes the goal of supplying at least 3 billion gallons of SAF per year by 2030 and, by 2050, sufficient SAF to meet 100% of aviation fuel demand, which is currently projected to be around 35 billion gallons per year.
- Newly enacted state-based incentives for SAF in 2023, including per gallon tax credits in Illinois, Minnesota, and Washington, demonstrate growing public policy support at all levels of government for scaling SAF production and increasing SAF use in the United States.
- The *oneworld*® alliance committed to a target of 10% SAF use across the alliance by 2030 and plans to reach net-zero emissions by 2050.

We believe that we possess the ability to convert various carbohydrate feedstocks through a fermentation process into alcohols and then transform the alcohols into renewable fuels and materials, through a combination of licensing of technology and engineering from third parties, and our own proprietary technology, know-how, and engineering. While we expect our major capital deployments to focus on the production of SAF, we recognize there are opportunities to operate in several different renewable fuels and materials markets and we will pursue those opportunities when appropriate based on customer interest, access to capital, and expected investment returns.

Our SAF production process uses carbohydrates as a feedstock. Carbohydrates are plant matter that result from photosynthesis. Photosynthesis is the natural process by which carbon dioxide is captured from the air by plants, which are very efficient at capturing carbon dioxide from the atmosphere. The carbon in carbohydrates is renewable because its source is carbon dioxide from the atmosphere. The carbohydrates are fermented to produce alcohol-based intermediate products (e.g., ethanol or isobutanol). The alcohol-based intermediates are then chemically processed to make renewable hydrocarbons. To achieve net-zero carbon intensity (“CI”) across the whole life cycle of the products, we believe:

- carbohydrates from sustainably grown feedstocks (e.g., low till, no-till, and dry corn cultivation) or other carbohydrate sources with a low CI score should be used in production;
- the energy (electricity and heat source) used in production must be de-fossilized; and
- the products cannot contain fossil-based carbon.

We believe sustainably grown industrial field corn (e.g., corn that is grown with precision agricultural techniques and low-till or no till cultivation to conserve nutrients, prevent water runoff, and erosion) is the best feedstock to commercialize for SAF initially because:

- it produces a significant amount of protein and vegetable oil for nutritional products on a per acre basis while also producing an abundance of low CI carbohydrates that can be captured and used as a feedstock for fuels and chemicals;
- the protein and oil that are produced can be easily separated and sold as co-products into the food chain markets. The protein and oil revenue serves to offset the cost of the corn feedstock;
- we believe the carbon footprint of growing corn can be negative, according to calculations completed with the GREET Model, when a full suite of climate-smart agricultural practices is employed on appropriate acres of cropland;
- we believe the corn can achieve lower CI scores when grown with climate-smart agricultural techniques than waste raw materials or wood; and
- we believe that residual carbohydrates from corn are the lowest cost carbohydrates available as a renewable raw material, and the production is proven and scalable.

We believe utilizing sustainable agriculture practices to help solve GHG problems is a breakthrough that addresses the problem of GHGs without compromising sustainability or food supply. We also believe that it will be possible to create an incentive structure that rewards farmers to lower the CI score of their agricultural products and create a cycle of continuous improvement to their overall sustainability footprint.

Net-Zero Projects

In early 2021, we announced the concept of “Net-Zero Projects” as a series of planned facilities to produce energy dense liquid hydrocarbons using renewable energy and our proprietary technology.

Our initial Net-Zero Project, Net-Zero 1 (“NZ1”), is expected to be located in Lake Preston, South Dakota, and is being currently designed to produce approximately 65 million gallons per year (“MGPY”) of total hydrocarbon volumes, including 60 MGPY of SAF, which would fulfill part of our approximately 400 MGPY of SAF and hydrocarbon supply agreements. The liquid hydrocarbons, when burned, are expected to have a “net-zero” GHG footprint. Along with the hydrocarbons, NZ1 is expected to produce approximately 1,390 million pounds per year of high-value protein products for use in the food chain and more than 34 million pounds per year of corn oil. Our products will be produced in three steps: the first step is milling the corn to produce the carbohydrates needed for the production of SAF while simultaneously enabling the production of protein and oil; the second step produces alcohols using carbohydrate-based fermentation; and the third step is the conversion of the alcohols into hydrocarbons.

We believe that by using known commercial technologies, the project execution and operational risk can be substantially decreased. Gevo developed, possesses, and owns the know-how, engineering, and overall systems design approach, which collectively represent strong intellectual property for our Net-Zero Projects. Gevo is adapting and integrating process technology from Axens North America, Inc. (“Axens”), Fluid Quip Technologies, LLC (“Fluid Quip”), and PRAJ Industries Limited (“PRAJ”), among others to design proprietary production facilities that efficiently convert biobased alcohols to hydrocarbons with a low carbon footprint.

The Axens process steps were chosen because their ethanol-to-hydrocarbon technology is commercially proven in petrochemical refineries and they have extensive commercial experience licensing various technologies and providing operational support to the petrochemical industry. We have an exclusive license in the U.S. from Axens to the process technology steps to convert ethanol into jet fuel, diesel fuel, and naphtha. Axens will also provide certain technology guarantees for the process steps related to their unit operations. The fermentation side of the integrated Net-Zero Projects is being engineered with Fluid Quip and PRAJ, who have extensive experience in fermentation and agriculture-based facilities. Gevo has extensive intellectual property to reduce the CI scores in these Net-Zero processes.

We completed the value engineering on our NZ1 project and are proceeding with detailed engineering, modularization design, and capital costs updates. Based on current information, the installed cost for NZ1 is currently forecasted to be approximately \$1 billion, excluding certain contingencies and financing costs.

We are focusing on engineering work to increase the modularization of component parts on the NZ1 plant design, which means that we expect that the process equipment would be built into modules at a factory, then the modules would be assembled onsite at NZ1, with the goal of minimizing specialized field work typical in plant construction of this type. This approach is expected to lower the risk and cost of, and access to, skilled labor at the site and reduce the supply chain constrictions for some of our long-lead equipment. Increasing the modularization of the plant design is also expected to reduce our spend in advance of securing a third-party equity and debt financing for NZ1.

We currently expect to finance the construction of NZ1 at the subsidiary level using a combination of our own, third-party, and debt capital. The Company expects to retain an equity interest in the project and may invest equity in the project using the proceeds from the reimbursement of the Company’s NZ1 development expenditures. Cash distributions from future NZ1 earnings would be proportionate to Gevo’s ownership in NZ1 under this expected financing structure which would allow us to conserve and redeploy our capital on other growth projects, including our Net-Zero 2 project (“NZ2”). We expect to apply similar development and financing strategies to NZ2 and future Net-Zero Projects to enable growth of SAF production to meet demand for SAF.

In order to achieve full construction financing for NZ1, we need to secure third-party equity and debt. Upon receiving an invitation from the U.S. Department of Energy (“DOE”), we submitted a Part II Application for a DOE loan guarantee for a direct lending from Federal Financing Bank. Gevo has been invited to enter the due diligence and term sheet negotiation phases with DOE. Given the current interest rate environment and general macroeconomic conditions, a DOE-guaranteed loan is our most attractive debt option, and is expected to offer the lowest cost of debt for the project. We expect that obtaining a DOE-guaranteed loan will have the benefit of reducing the overall amount of equity required to finance NZ1 and should result in higher project equity returns for investors which should increase the likelihood of Gevo successfully financing NZ1. However, the DOE loan application process is expected to carry into 2024. We expect that our NZ1 plant start-up date will occur twenty-four to thirty months after the financing of NZ1 closes, the timing of which is uncertain. In parallel with the DOE-guaranteed loan process, we continue to explore debt financing for NZ1 without the benefit of the DOE-guaranteed loan.

We are evaluating and performing early site development work at several sites in the U.S. for NZ2. These sites include several greenfield locations that are particularly advantageous in terms of potential economics, opportunities to decarbonize, and time to market. In addition, we are pursuing potential Net-Zero Projects with several existing ethanol plant sites. Existing ethanol plants need to be decarbonized with renewable energy or de-fossilized energy and/or carbon sequestration. Gevo has developed a preferred list of potential partners and sites with decarbonization in mind and is engaged in preliminary feasibility and development discussions with several of these potential partners. We plan to give priority to existing industrial plant sites that have attractive potential economics and high predictability of timeline for decarbonization.

Renewable Natural Gas Facilities

Our RNG and biogas projects generate incremental profit and create a long-term option to potentially supply RNG to our Net-Zero Projects as part of our long-term strategy to decarbonize SAF and other hydrocarbon fuels.

We developed and constructed our first RNG facilities in northwest Iowa in 2022. RNG has value in markets such as California as well as in our hydrocarbon production process by helping us achieve carbon negative GHG emissions on our renewable hydrocarbon products. The end products resulting from such a decarbonization process have lower CI scores and increased market value, in addition to having a more positive impact on the environment. Our initial RNG project, Gevo NW Iowa RNG, LLC (“Gevo RNG”), was developed to generate RNG captured from dairy cow manure which is supplied by three dairies located in Northwest Iowa. Animal manure is digested anaerobically to produce RNG. We financed the construction of the Gevo RNG project in April 2021 with the \$68,155,000 of Solid Waste Facility Revenue Bonds (Gevo NW Iowa RNG, LLC Renewable Natural Gas Project), Series 2021 (Green Bonds) (the “2021 Bonds”) issued by the Iowa Finance Authority in a public offering for the benefit of Gevo RNG. See Note 14 to the Consolidated Financial Statements for further detail.

The Gevo RNG project started up in and began producing biogas in the first quarter of 2022 and began injecting RNG into an interconnected natural gas pipeline in the second quarter of 2022. Gevo RNG is on target to produce up to 310,000 MMBtu in 2023. In addition, we completed an expansion to the Gevo RNG project to increase its annual design capacity from 355,000 MMBtu to 400,000 MMBtu.

Gevo was granted registration approval by the EPA in 2022, allowing us to participate in its Renewable Fuel Standard Program (“RFS Program”) to receive renewable identification numbers (“RINs”). During the first quarter of 2023, we received approval for a temporary pathway under California’s Low Carbon Fuel Standard (“LCFS”) program. We continue to realize substantial sales for our environmental attributes of both LCFS credits and RINs in 2023.

We believe the trust and reputation we have attained in the RNG industry, in combination with our understanding of the various and complex environmental attributes, gives us a competitive advantage. We intend to leverage our relationships to identify and execute new project opportunities. Typically, new development opportunities come from our existing relationships with dairy owners who value our reputation in the industry.

We exercise financial discipline in pursuing projects by targeting attractive risk-adjusted project returns, whether selling RNG into the markets or using it to lower CI scores at our Net-Zero Projects. We will monitor biogas supply availability across our portfolio and seek to maximize our production by expanding operations when economically feasible.

Verity

It is critical that we can prove the CI of our products, ensuring that these values are accurate and auditable. The mission of Verity (“Verity”), including Verity Tracking and Verity Carbon Solutions, is to document CI and other sustainability attributes and apply Distributed Ledger Technology, commonly referred to as blockchain, to create a record of the products throughout the entire business system. Verity starts by calculating carbon intensity of feedstocks from data collected at the farm and field level. We plan to track these feedstocks through production at our plants where we intend to use a mix of renewable electricity, biogas, renewable hydrogen and other potentially decarbonized energy sources in production. The CI data would then be combined to deliver a comprehensive CI reduction in a finished renewable fuel. The resulting CI reduction value has potential to be quantified as a digital asset and monetized in voluntary or compliance carbon markets, and providing compliance needs for tax incentives while preventing double-counting. We believe that in the future, regenerative agricultural practices have the potential to sequester large quantities of soil organic carbon while improving soil health.

There is an increasing regulatory and stakeholder pressure on global corporations to lower emissions. These trends are driving demand for carbon credits, giving rise to two sets of markets, the regulated compliance carbon market and the unregulated voluntary carbon market, both of which could grow meaningfully in the coming decades. The total value of major compliance carbon markets is expected to be greater than \$800 billion in 2023, according to Bloomberg. Verity intends to document and account for carbon capture in conjunction with scientifically supported measurement techniques. The potential for Verity is broad and could be applicable to tracking the CI of various items beyond Gevo's internal businesses, including, but not limited to, renewable fuels, food, feed and industrial products through their respective business systems and value chains. Our robust scientific measurement, reporting, and verification plan and approach is expected to provide a high-quality credit that should meet regulated compliance and unregulated carbon markets.

In March 2023, we entered into a joint development framework agreement with Southwest Iowa Renewable Energy, in August 2023, we entered into a joint development framework agreement with a second ethanol producer in the Midwest that has over 100 million gallons of capacity, and with a third ethanol producer in the Southwest. These agreements include commercial terms and profit sharing frameworks. As we grow Verity as an externally facing business, we are working to sign up additional ethanol and biofuel customers. Each of these agreements will focus on implementing Verity technology and developing the market for carbon credits to help farmers and biofuel producers quantify the CI reductions for their products.

During the second quarter of 2023, we launched the Verity Tracking platform (the "Platform") with farmers in the Lake Preston, South Dakota area who participated in our 2022 grower program. In its initial release, the Platform allows the users to measure, report, verify, and view the CI scores at both the farm average and field-by-field levels. The Platform provides insights into the contributors and removers behind the CI, helping users to understand the factors that drive differences in CI performance between fields. Users can also compare their scores with the U.S. national average calculated by the GREET model.

Luverne Facility

In 2022, the activities at our Luverne Facility were transitioned to care and maintenance, market development, and customer education, as we shifted focus to our Net Zero Projects. The workforce adjustment which resulted allowed us to retain key personnel and redeploy some resources to our NZ1 and RNG projects to provide valuable knowledge and experience for the future strategic growth of the Company. The Luverne Facility is well equipped and positioned as a development site as it provides a unique opportunity to showcase our decarbonization and business systems and raise awareness for future partnerships, investors, and local communities, even though operations at the site have been minimized. Future operations, if any, will be tailored to support a focus on advancing our technology, testing, optimizing alternative feedstocks and yeast strains, and unit operations as well as partnership development for fuels and specialty chemicals with integrated solutions for GHG reductions. We continue to evaluate incentive opportunities recently introduced by the Inflation Reduction Act, which may positively impact the future economics of our operation at Luverne.

Axens Master Framework Agreement and Technology Access Agreement

On May 5, 2023, Gevo entered into a Side Agreement ("Side Agreement") with Axens in connection with a Master Framework Agreement for Ethanol to Jet Collaboration ("MFA"), dated September 22, 2021 pursuant to which Axens agreed to exclusively provide to Gevo for a period beginning on the effective date of the contract and ending on December 22, 2023 (the "Initial Term") certain engineering, license rights, catalyst supply, technical assistance and proprietary reactor for use in certain processes (collectively, "Services") in the conversion of ethanol to hydrocarbons fuels via dehydration, oligomerization, and saturation in the Exclusive Field (as defined in the MFA) and the Exclusive Territory (as defined in the MFA) for the purpose of the production of renewable hydrocarbons, including gasoline, diesel, and jet fuel in exchange for payment by Gevo of an annual exclusivity fee and use of the Services. The Initial Term is subject to automatic extension for up to two years upon the satisfaction of certain conditions. Should the conditions not be met then any extension of the Initial Term will not be automatic, but subject to written agreement of Gevo and Axens.

The Side Agreement modifies the exclusivity provisions contained in the MFA. The parties carved-out exceptions to the Exclusive Territory in certain areas of the Midwest for (i) an ethanol wet mill facility in Decatur, Illinois, (ii) a dry mill in Cedar Rapids, Iowa, and (iii) a dry mill and co-generation plant in Columbus, Nebraska (“Modified Territory”). Within the Modified Territory, Axens is permitted to provide certain services and grant certain licenses relating to the conversion of ethanol to hydrocarbons fuels via dehydration, oligomerization, and saturation to Phillips 66 Company (“P66”), Archer-Daniels-Midland Company (“ADM” and, together with P66, the “Potential Partners”), or a joint venture entity between ADM and P66 (the “JV”). The Side Agreement became effective on May 5, 2023 and will continue until the exclusivity contemplated under the MFA is suspended or is terminated.

In connection with the Side Agreement, and as consideration for Gevo to share Axens’ technology with P66 and ADM in the Modified Territory, Gevo, P66 and ADM entered into a Technology Access Agreement, dated as of May 5, 2023 (the “TAA”). As consideration for Gevo entering into the TAA and the Side Agreement, the Potential Partners shall cause the applicable JV to pay Gevo certain milestone payments in connection with the development and production of the hydrocarbon fuel expected to equal to \$50 million if all milestones are achieved. Additionally, the Potential Partners will cause the applicable JV to make royalty payments to Gevo on such renewable hydrocarbons produced during a certain period (subject to a cap) and described in the TAA. The royalty payments are expected to equal at least \$75 million if certain conditions and production milestones are achieved.

If the Potential Partners determine not to utilize any of the Services and license the Axens processes in connection with such facilities owned by the JV, the Potential Partners may jointly agree to terminate the TAA. Pursuant to the terms of the TAA, no payments shall be due to Gevo by or on behalf of P66, ADM, any JV or any affiliate of P66, ADM or any JV (i) under or in connection with the TAA if, for any or no reason, no milestone is met or (ii) for a particular milestone if, for any or no reason, such milestone is not met.

The TAA became effective on May 5, 2023 and continues with full force and effect unless certain development milestones have not been reached, or unless earlier terminated as jointly determined by the Potential Partners. The TAA will also terminate upon the occurrence of a material breach by the non-terminating party that is not cured within 30 days following written notice or certain insolvency events, or if the MFA is terminated or Gevo otherwise loses its exclusive rights to the Services in the U.S. If the TAA is terminated, any milestone payments or royalty payments not previously earned prior to termination as described above would not be paid to Gevo.

Other Developments

U.S. Department of Agriculture. In September 2023, we executed a Notice of Grant and Agreement Award with the U.S. Department of Agriculture (“USDA”) for a Partnerships for Climate-Smart Commodities grant of up to \$30.0 million for Gevo’s Climate-Smart Farm-to-Flight Program, with project activity beginning for the 2023 crop year. The project expects to create critical structural climate-smart market incentives for low CI corn as well as to accelerate the production of SAF to reduce the sector’s dependency on fossil-based fuels. In addition, this program will help provide support and incentive payments for farmers to produce, measure, report and verify low CI corn using climate smart agricultural practices, as well as accelerate development of the low-CI corn supply chain for low-carbon ethanol and SAF.

LG Chem Agreement. In April 2023, we entered into a joint development agreement with LG Chem, Ltd. (“LG Chem”) a leading global chemical company to develop bio-propylene for renewable chemicals using our Ethanol-to-Olefins (“ETO”) technology. Gevo’s proprietary ETO technology can target carbon neutral or carbon negative drop-in replacements for traditional petroleum-based building blocks called olefins, including bio-propylene, which can be used for renewable chemicals or fuels including sustainable aviation fuel. These plant-based, renewable olefins would be derived from atmospheric CO₂ captured through photosynthesis and are expected to deliver the same performance in final products on the market today. Under the terms of the agreement, we will provide the core enabling technology it has developed for renewable olefins to be produced from low-carbon ethanol and together the parties will collaborate to accelerate the pilot research, technical scale-up, and commercialization of bio-propylene. LG Chem is expected to bear all scale-up costs for chemicals and make certain payments to Gevo. We received \$1.1 million, net of foreign taxes of \$0.2 million, in the second quarter of 2023 under the agreement, and we expect to receive an additional \$1.2 million over the next two years to help defray costs associated with the joint development efforts. In addition, LG Chem agreed to make certain payments to us upon commencement of commercialization as follows:

- \$5.0 million upon commencement of commercialization, to be paid ratably over a period of five years
- 1% royalty on Net Sales for the first production facility beginning six years from commercial operation
- 1% royalty on Net Sales for all subsequent production facilities upon commencement of operations

Key Operating Metrics

Total operating revenues reflect both sales of RNG and sales of related environmental attributes. Our revenues are primarily affected by RNG production volume, generation of environmental attributes, and the average realized prices for such products. The following table summarizes the key operating metrics, specifically for the Renewable Natural Gas Segment, which we use to measure performance:

(in thousands, unless otherwise indicated)	<u>Three Months Ended September 30, 2023</u>	<u>Three Months Ended June 30, 2023</u>	<u>Change</u>	<u>Change %</u>
Revenues				
Natural gas commodity	\$ 187	\$ 140	\$ 47	34 %
Natural gas environmental attributes - RINs	2,932	1,814	1,118	62 %
Natural gas environmental attributes - LCFS	1,398	963	435	45 %
Total revenues	<u>\$ 4,517</u>	<u>\$ 2,917</u>	<u>\$ 1,600</u>	
Production expenses ⁽¹⁾	<u>\$ 2,689</u>	<u>\$ 1,294</u>	<u>\$ 1,395</u>	108 %
RNG metrics				
RNG production volumes (MMBtu)	81	78	3	4 %
Plus: prior period RNG volumes dispensed in current period	51	64	(13)	(20)%
Less: RNG production volumes not dispensed	(28)	(51)	23	(45)%
Total RNG volumes available for RIN and LCFS generation ⁽²⁾	<u>104</u>	<u>91</u>	<u>13</u>	
RIN Metrics				
RIN generation ⁽³⁾	1,223	1,059	164	15 %
Plus: Prior period RINs	—	—	—	— %
Total RINs available for sale	1,223	1,059	164	15 %
Less: RINs sold	(1,223)	(1,059)	(164)	15 %
RIN inventory	—	—	—	
RNG volumes not dispensed for RINs (MMBtu) ⁽⁴⁾	(23)	51	(74)	(145)%
Average realized RIN price ⁽⁵⁾	\$ 2.40	\$ 1.71	\$ 0.69	40 %
LCFS metrics				
LCFS generation ⁽⁶⁾	20	18	2	11 %
Less: LCFS sold	(20)	(18)	(2)	11 %
LCFS inventory	—	—	—	
RNG volumes not dispensed for LCFS (MMBtu)	28	51	(23)	(45)%
Average realized LCFS price ⁽⁵⁾	\$ 69.11	\$ 54.71	\$ 14.40	26 %

- (1) The higher per unit cost reflects lower production volumes during the commissioning and ramp-up period which can take up to 12 months or longer.
- (2) Represents gas production which has not been dispensed to generate RINs and LCFS.
- (3) RINs are generally generated in the month following the gas being dispensed.
- (4) One MMBtu of RNG has approximately the same energy content as 11.727 gallons of ethanol, and thus may generate 11.727 RINs under the RFS Program.
- (5) Realized prices for environmental attributes are net of third-party commissions and thus do not correspond directly to index prices.
- (6) LCFS credits are generally generated in the calendar quarter following the gas being dispensed.

(in thousands, unless otherwise indicated)	Nine Months Ended September 30, 2023	Nine Months Ended December 31, 2022	Change	Change %
Revenues				
Natural gas commodity	\$ 457	\$ 640	\$ (183)	(29)%
Natural gas environmental attributes - RINs	7,476	214	7,262	3,393 %
Natural gas environmental attributes - LCFS	3,164	—	3,164	100 %
Total revenues	<u>\$ 11,097</u>	<u>\$ 854</u>	<u>\$ 10,243</u>	
Production expenses ⁽¹⁾				
	<u>\$ 8,356</u>	<u>\$ 2,626</u>	<u>\$ 5,730</u>	218 %
RNG metrics				
RNG production volumes (MMBtu)	223	125	98	78 %
Plus: prior period RNG volumes dispensed in current period	116	—	116	100 %
Less: RNG production volumes not dispensed	(28)	(116)	88	(76)%
Total RNG volumes available for RIN and LCFS generation ⁽²⁾	<u>311</u>	<u>9</u>	<u>302</u>	
RIN Metrics				
RIN generation ⁽³⁾	3,638	101	3,537	3,502 %
Plus: Prior period RINs	—	—	—	— %
Total RINs available for sale	<u>3,638</u>	<u>101</u>	<u>3,537</u>	3,502 %
Less: RINs sold	(3,638)	(101)	(3,537)	3,502 %
RIN inventory	<u>—</u>	<u>—</u>	<u>—</u>	
RNG volumes not dispensed for RINs (MMBtu) ⁽⁴⁾	28	116	(88)	(76)%
Average realized RIN price ⁽⁵⁾	\$ 2.05	\$ 2.13	\$ (0.08)	(4)%
LCFS metrics				
LCFS generation ⁽⁶⁾	52	—	52	100 %
Less: LCFS sold	(52)	—	(52)	100 %
LCFS inventory	<u>—</u>	<u>—</u>	<u>—</u>	
RNG volumes not dispensed for LCFS (MMBtu)	28	116	(88)	(76)%
Average realized LCFS price ⁽⁵⁾	\$ 60.45	\$ —	\$ 60.45	100 %

- (1) The higher per unit cost reflects lower production volumes during the commissioning and ramp-up period which can take up to 12 months or longer.
- (2) Represents gas production which has not been dispensed to generate RINs and LCFS.
- (3) RINs are generally generated in the month following the gas being dispensed.
- (4) One MMBtu of RNG has approximately the same energy content as 11.727 gallons of ethanol, and thus may generate 11.727 RINs under the RFS Program.
- (5) Realized prices for environmental attributes are net of third-party commissions and thus do not correspond directly to index prices.
- (6) LCFS credits are generally generated in the calendar quarter following the gas being dispensed.

Results of Operations

Comparison of the Three Months Ended September 30, 2023 and 2022 (in thousands):

	<u>Three Months Ended September 30,</u>		<u>Change</u>	<u>Change %</u>
	<u>2023</u>	<u>2022</u>		
Total operating revenues	\$ 4,528	\$ 309	\$ 4,219	1,365 %
Operating expenses:				
Cost of production	2,480	575	1,905	331 %
Depreciation and amortization	4,994	1,657	3,337	201 %
Research and development expense	1,558	1,562	(4)	(0)%
General and administrative expense	10,522	11,144	(622)	(6)%
Project development costs	4,789	2,218	2,571	116 %
Facility idling costs	911	2,330	(1,419)	(61)%
Impairment loss	—	24,749	(24,749)	(100)%
Total operating expenses	25,254	44,235	(18,981)	(43)%
Loss from operations	(20,726)	(43,926)	23,200	(53)%
Other income (expense)				
Interest expense	(540)	(455)	(85)	19 %
Interest and investment income	5,261	896	4,365	487 %
Other income (expense), net	305	(301)	606	(201)%
Total other income, net	5,026	140	4,886	3,490 %
Net loss	<u>\$ (15,700)</u>	<u>\$ (43,786)</u>	<u>\$ 28,086</u>	<u>(64)%</u>

Operating revenue. During the three months ended September 30, 2023, operating revenue increased \$4.2 million compared to the three months ended September 30, 2022, primarily due to sales of RNG and environmental attributes from our RNG project. Sales under our RNG project commenced in the third quarter of 2022, and only included RNG sales during the ramp up period. During the three months ended September 30, 2023, revenue included biogas commodity sales of 81,271 MMBtu or \$0.2 million, as well as environmental attribute sales of \$4.3 million, see Key Operating Metrics above.

Cost of production. Cost of production increased \$1.9 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, mainly due to the production and sales from our RNG project, which significantly increased in 2023, after the ramp-up phase.

Depreciation and amortization. Depreciation and amortization increased \$3.3 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to additional depreciation for RNG assets placed into service in 2022 and accelerated depreciation on Agri-Energy segment assets due to shorter lives stemming from the impairment assessment during the third quarter of 2022.

Research and development expense. Research and development expense remained flat during the three months ended September 30, 2023, compared to the three months ended September 30, 2022. The expenses primarily consist of patent and personnel related costs, as well as lab work and supplies related to our ETO and other technologies.

General and administrative expense. General and administrative expense decreased \$0.6 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022. The expenses primarily consist of professional consulting fees and personnel costs related to the hiring of highly qualified and skilled professionals.

Project development costs. Project development costs are related to our future Net-Zero Projects and Verity which consist primarily of employee expenses, preliminary engineering, technical, and consulting costs. Project development costs increased \$2.6 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to increases in consulting fees and personnel costs.

Facility idling costs. Facility idling costs of \$0.9 million for the three months ended September 30, 2023, are due to the care and maintenance of our Luverne Facility. While idling, the Luverne Facility is being used as a development scale plant to advance our technology and operational knowledge to help us in achieving operational success as we scale up the production and delivery of hydrocarbons and chemical products for our customers and partners.

Impairment loss. No impairment loss was recorded during the three months ended September 30, 2023. During the three months ended September 30, 2022, the Company recorded a \$24.7 million impairment loss on long-lived assets, which reduced the carrying value of certain property, plant, and equipment, and a leased ROU asset, at the Agri-Energy segment to its fair value. The impairments recorded relate to the determination to suspend production at the Luverne Facility and shift the plant into an idled, care and maintenance state during the third quarter of 2022. See Note 3 to the Consolidated Financial Statements for additional information.

Loss from operations. Our loss from operations decreased by \$23.2 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to the impairment loss recorded during 2022, as well as increased activities for our Net-Zero Projects and Verity, partially offset by increased operating revenue. See explanations for each line item above.

Interest expense. Interest expense increased \$0.1 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to the interest on the 2021 Bonds, which was capitalized into construction in process during the construction phase of our RNG project in the prior periods.

Interest and investment income. Interest and investment income increased \$4.4 million during the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to an increase in interest earned on our cash equivalent investments as a result of higher interest rates.

Other income. Other income increased \$0.6 million for the three months ended September 30, 2023, compared to the three months ended September 30, 2022, primarily due to the receipt of \$0.4 million from the USDA's Biofuel Producer Program in 2023.

Comparison of the Nine Months Ended September 30, 2023 and 2022 (in thousands):

	<u>Nine Months Ended September 30,</u>		<u>Change (\$)</u>	<u>Change (%)</u>
	<u>2023</u>	<u>2022</u>		
Total operating revenues	\$ 12,826	\$ 630	\$ 12,196	1,936 %
Operating expenses:				
Cost of production	8,836	5,499	3,337	61 %
Depreciation and amortization	14,323	4,573	9,750	213 %
Research and development expense	4,716	4,720	(4)	(0)%
General and administrative expense	31,891	29,205	2,686	9 %
Project development costs	10,635	5,550	5,085	92 %
Facility idling costs	2,923	2,330	593	25 %
Impairment loss	—	24,749	(24,749)	(100)%
Total operating expenses	73,324	76,626	(3,302)	(4)%
Loss from operations	(60,498)	(75,996)	15,498	(20)%
Other income (expense)				
Interest expense	(1,615)	(459)	(1,156)	252 %
Interest and investment income	14,083	1,226	12,857	1,049 %
Other income (expense), net	292	2,609	(2,317)	(89)%
Total other income, net	12,760	3,376	9,384	278 %
Net loss	<u>\$ (47,738)</u>	<u>\$ (72,620)</u>	<u>\$ 24,882</u>	<u>(34)%</u>

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Operating revenue. During the nine months ended September 30, 2023, operating revenue increased \$12.2 million compared to the nine months ended September 30, 2022, primarily due to sales of RNG and environmental attributes from our RNG project. Sales under our RNG project commenced in the third quarter of 2022. During the nine months ended September 30, 2023, we sold 222,906 MMBtu of RNG from our RNG project, resulting in biogas commodity sales of \$0.5 million and environmental attribute sales of \$10.6 million, see Key Operating Metrics above. Additionally, we recognized \$1.3 million of licensing and development revenue from the agreement with LG Chem as well as \$0.4 million of isooctane.

Cost of production. Cost of production increased \$3.3 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022 mainly due to the production and sales from our RNG project, which significantly increased in 2023, after the ramp-up phase, as well as lower costs at the idling Luverne Facility in 2023.

Depreciation and amortization. Depreciation and amortization increased \$9.8 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to a full three quarters of additional depreciation expense in 2023 for RNG assets placed into service in Q3 2022 and accelerated depreciation on Agri-Energy segment assets due to shorter lives stemming from the impairment assessment during the third quarter of 2022.

Research and development expense. Research and development expenses remained flat during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022. The expenses primarily include patent and personnel related costs, lab work and supplies related to our ETO and other technologies, as well as technical consulting.

General and administrative expense. General and administrative expense increased \$2.7 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to increases in stock-based compensation, professional consulting fees, and personnel costs related to the hiring of highly qualified and skilled professionals.

Project development costs. Project development costs are related to our future Net-Zero Projects and Verity which consist primarily of employee expenses, preliminary engineering costs, and technical consulting costs. Project development costs increased \$5.1 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to increases in personnel costs and consulting fees.

Facility idling costs. Facility idling costs are related to care and maintenance of our Luverne Facility. The increase of \$0.6 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to the Luverne Facility being in production for the first half of 2022, resulting in costs being recorded as a component of production expenses.

Impairment loss. No impairment loss was recorded during the nine months ended September 30, 2023. During the nine months ended September 30, 2022, the Company recorded a \$24.7 million impairment loss on long-lived assets, which reduced the carrying value of certain property, plant, and equipment, and a leased ROU asset, at the Agri-Energy segment to its fair value. The impairments recorded relate to the determination to suspend production at the Luverne Facility and shift the plant into an idled, care and maintenance status during the third quarter of 2022. See Note 3 to the Consolidated Financial Statements for additional information.

Loss from operations. Our loss from operations decreased by \$15.5 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to the increased revenue from RNG operations and LG Chem licensing in 2023, as well as the prior year impairment loss, partially offset by the increase in costs for our Net-Zero, Verity, and USDA Climate-Smart Grant projects.

Interest expense. Interest expense increased \$1.2 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to the interest on the 2021 Bonds, which was capitalized into construction in process during the construction phase of our RNG project in the prior periods.

Interest and investment income. Interest and investment income increased \$12.9 million during the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to an increase in interest earned on our cash equivalent investments as a result of higher interest rates.

Other income. Other income decreased \$2.3 million for the nine months ended September 30, 2023, compared to the nine months ended September 30, 2022, primarily due to the receipt of \$0.4 million from the USDA's Biofuel Producer Program in 2023 compared to \$2.9 million in 2022.

Critical Accounting Policies and Estimates

There have been no significant changes to our critical accounting estimates and policies since December 31, 2022. For a description of our other critical accounting policies and estimates that affect our significant judgments and estimates used in the preparation of our consolidated financial statements, refer to “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates” contained in our 2022 Annual Report.

Our unaudited consolidated financial statements are prepared in conformity with GAAP and require our management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates, and such estimates may change if the underlying conditions or assumptions change.

Liquidity and Capital Resources

As of September 30, 2023, we had cash and cash equivalents of \$323.5 million and current restricted cash of \$77.8 million. As of September 30, 2023, we have net working capital of \$314.9 million, with \$96.4 million of current liabilities. Our cash equivalents primarily consist of investments in U.S. government money market funds. We expect to use our cash, cash equivalents, and restricted cash for the following purposes: (i) identification, development, engineering, licensing, acquisition and construction of production facilities and the Company’s other Net-Zero Projects; (ii) potential investment in RNG projects; (iii) potential development of the Luverne Facility; (iv) operating activities at the Company’s corporate headquarters in Colorado, including research and development work; (v) exploration of strategic alternatives and additional financing, including project financing; and (vi) future debt service obligations. We believe as a result of our cash and cash equivalents balances, and the performance of our current and expected operations, we will be able to meet our obligations and other potential cash requirements during the next 12 months from the date of this report.

Since our inception in 2005, we have devoted most of our cash resources to the development and commercialization of routes to efficiently produce fuels and chemicals from carbohydrates, such as renewable feedstock, using alcohols (isobutanol and ethanol) as intermediates. We have incurred losses since inception, have a significant accumulated deficit, and expect to incur losses for the foreseeable future. Historically we have financed our operations primarily with proceeds from the issuance of equity, warrants, debt securities, and borrowings under debt facilities. Our current sources of cash include sales of RNG, environmental attributes, and licensing fees. We may also fund future operations through additional private and/or public offerings of equity or debt securities. In addition, we may seek additional capital, on acceptable terms, through arrangements with strategic partners or from other sources. Notwithstanding, there can be no assurance that we will be able to raise additional funds or achieve or sustain profitability or positive cash flows from operations.

Our transition to profitability is dependent upon, among other things, the successful development and commercialization of its product candidates, the development, licensing, acquisition and construction of commercial level production facilities to support our offtake agreements, the achievement of a level of revenues adequate to support the Company’s cost structure, and the ability to raise capital to finance the development, licensing, acquisition, and construction of additional production facilities.

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

	Nine Months Ended September 30,	
	2023	2022
Net cash used in operating activities	\$ (21,128)	\$ (32,776)
Net cash provided by investing activities	\$ 107,171	\$ 36,568
Net cash used in financing activities	\$ (150)	\$ 138,605

Operating Activities

Our primary uses of cash from operating activities are cost of production, personnel-related expenses, and research and development-related expenses, including costs incurred under development agreements, costs of licensing of technology, legal-related costs, and other expenses for preliminary project development activities. The operating activities cash uses were offset by the revenues from our RNG operations, as well as licensing fees.

During the nine months ended September 30, 2023, net cash used for operating activities was \$21.1 million compared to \$32.8 million for the nine months ended September 30, 2022. Non-cash charges primarily consisted of depreciation and amortization of \$14.3 million, stock-based compensation expense of \$12.8 million, and other non-cash expense of \$0.7 million, partially offset by non-cash amortization of discounts on marketable securities of \$0.1 million. The net cash outflow from changes in operating assets and liabilities decreased \$3.6 million, primarily due to decreased cash outflows of \$0.2 million related to accounts payable, \$4.3 million of prepaid expenses and other current assets, deposits and other assets and \$1.5 million of decreased costs associated with the sale of environmental attribute inventory. These were partially offset by \$2.4 million related to increases in accounts receivable.

Investing Activities

During the nine months ended September 30, 2023, we had \$107.2 million in cash provided by investing activities, of which \$168.6 million related to proceeds from sales and maturities of marketable securities, partially offset by \$61.4 million of investments in our capital projects, including \$6.1 million in the RNG project, \$46.7 million for NZ1, and \$8.6 million in other projects.

The NZ1 project development is proceeding with water and wind energy development agreements executed in the third quarter of 2022, and other key project elements are on track for completion in accordance with our comprehensive project plan. Based on the ongoing engineering work, the installed cost for NZ1 is currently forecasted to be approximately \$1.0 billion, excluding certain contingencies and financing costs. Upon receiving an invitation from the DOE, we submitted a Part II Application for a DOE loan guarantee for a direct lending from the Federal Financing Bank. In August 2023, Gevo was formally invited by the DOE pursuant to their Title XVII process enter the due diligence and term sheet negotiation phase. A DOE guaranteed loan facility is expected to offer the lowest cost of debt for the project in the current credit markets.

In 2022, we allocated approximately \$25.0 million to develop our next Net-Zero Project, of which we have spent approximately \$15.0 million. Gevo is in the process of identifying and performing early site development work for additional Net-Zero production locations. These potential sites include greenfield and brownfield (*i.e.*, at an existing ethanol plant) locations that are advantageous in terms of potential economics, opportunities to decarbonize, and time to market.

Financing Activities

During the nine months ended September 30, 2023, we had \$0.2 million of net cash used in financing activities, primarily due to payments for equipment loans and finance lease liabilities.

We currently expect to finance the construction of NZ1 at the subsidiary level using a combination of our own equity, third-party equity, and debt capital. The Company expects to retain an equity interest in the project and may invest additional equity in the project using the proceeds from the reimbursement of the Company's NZ1 development expenditures. Cash distributions from future NZ1 project earnings would be proportionate to Gevo's ownership position under the expected financing structure. Using third-party equity will result in less revenue to Gevo but it also allows us to conserve and redeploy capital on other growth projects, including NZ2. We expect to apply similar development and financing strategies to NZ2 and future Net-Zero Projects to enable rapid growth of SAF production to meet current contractual demand for SAF.

Stock Repurchase Program

On May 30, 2023, we authorized a stock repurchase program, under which we may repurchase up to \$25 million of our common stock. The primary goal of the repurchase program is to allow us to opportunistically repurchase shares, while maintaining our ability to fund its development projects. Under the stock repurchase program, we may repurchase shares from time to time in the open market or through privately negotiated transactions. The timing, volume and nature of stock repurchases, if any, will be in our sole discretion and will be dependent on market conditions, applicable securities laws, and other factors. The stock repurchase program may be suspended or discontinued at any time and does not have an expiration date. We did not repurchase any shares of common stock under the stock repurchase program during the three and nine months ended September 30, 2023.

Item 3. Quantitative and Qualitative Disclosures About Market Risk.

As a smaller reporting company, we are not required to provide the information required by this Item. However, we note that we are exposed to market risks in the ordinary course of our business. These risks primarily consist of environmental attribute pricing, commodity pricing, interest rate, credit risk with our contract counterparties, and equity price risks. There have been no material changes since our disclosure in “Quantitative and Qualitative Disclosures About Market Risk” included in Part II, Item 7A of our 2022 Annual Report.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures, as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, that are designed to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required financial disclosures.

During the fiscal period covered by this report, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) of the Exchange Act). Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that, as of September 30, 2023, our disclosure controls and procedures were not effective as of that date due to the material weakness in internal control over financial reporting that was identified as of September 30, 2023, as described below.

Material Weakness

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

As of September 30, 2023, we identified a material weakness related to the ineffective design of internal controls to identify and evaluate the existence of, and accounting for, variable interest entities (“VIEs”). This material weakness resulted in the failure to timely identify two potential VIEs requiring consolidation at the time the Company entered into the agreements. This material weakness resulted in a prior period adjustment to our consolidated financial statements as of and for the period ended September 30, 2023.

Management's Remediation Plan

We are committed to maintaining a strong internal control environment, and we believe the measures described below will strengthen our internal control over financial reporting and remediate the material weakness we have identified. Management has been implementing and continues to implement measures designed to ensure that control deficiencies contributing to the material weakness are remediated, such that these controls are designed, implemented, and operating effectively. The remediation actions include enhancing our risk assessment controls, implementing new internal controls, and engaging with qualified third-party consultants when necessary.

Our remediation efforts have begun, and we will continue to devote significant time and attention to these remedial efforts. As we continue to evaluate and work to improve our internal control over financial reporting, management may determine to take additional measures to strengthen controls or to modify the remediation plan described above, which may require additional implementation time.

Notwithstanding the identified material weakness, management believes that the Financial Statements and related financial information included in this Quarterly Report fairly present, in all material respects, our balance sheets, statements of operations, shareholders' equity and cash flows as of and for the periods presented.

Changes in Internal Control Over Financial Reporting

There were no changes that occurred during the three months ended September 30, 2023, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings.

A discussion of legal matters is found in Note 17, Commitments and Contingencies, in the accompanying Notes to the Financial Statements included in Part I - Item 1. Financial Statements of this Report.

Item 1A. Risk Factors.

You should carefully consider the risk factors discussed in Part I, Item 1A. "Risk Factors" in our 2022 Annual Report, which could materially affect our business, financial condition, cash flows or future results. There have been no material changes in our risk factors included in our 2022 Annual Report. The risk factors in our 2022 Annual Report are not the only risks facing our company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition or future results.

Item 2. Unregistered Sales of Equity Securities, Use of Proceeds, and Issuer Purchases of Equity Securities

None.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not Applicable.

Item 5. Other Information.

None.

Item 6. Exhibits.

The exhibits listed below are filed or furnished as part of this report.

Exhibit No.	Description	Incorporated by Reference				Filed Herewith
		Form	File No.	Filing Date	Exhibit	
3.1	Amended and Restated Certificate of Incorporation of Gevo, Inc.	10-K	001-35073	February 24, 2022	3.1	
3.2	Second Amended and Restated Bylaws of Gevo, Inc.	8-K	001-35073	November 24, 2021	3.1	
4.1	Form of Gevo, Inc. Common Stock Certificate.	S-1	333-168792	January 19, 2011	4.1	
31.1	Section 302 Certification of the Principal Executive Officer.					X
31.2	Section 302 Certification of the Principal Financial Officer.					X
32.1	Section 906 Certification of the Principal Executive Officer and Principal Financial Officer.					**
101.INS	Inline XBRL Instance Document (the Instance Document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document)					X
101.SCH	Inline XBRL Taxonomy Extension Schema					X
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase					X
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase					X
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase					X
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase					X
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and contained in Exhibit 101)					X

** Furnished herewith.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

Gevo, Inc.
(REGISTRANT)

By: _____
 /s/ Alisher Nurmat
 Alisher Nurmat, CPA
 Vice President of Accounting and Treasurer
 (Duly Authorized Officer and Principal Accounting Officer)

Date: November 14, 2023

CERTIFICATIONS

I, Patrick R. Gruber, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Gevo, Inc. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: November 14, 2023

/s/ Patrick R. Gruber

Patrick R. Gruber
Chief Executive Officer
(Principal Executive Officer)

CERTIFICATIONS

I, L. Lynn Smull, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Gevo, Inc. (the "Registrant");
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Registrant as of, and for, the periods presented in this report;
4. The Registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Registrant and have:
 - a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c) Evaluated the effectiveness of the Registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d) Disclosed in this report any change in the Registrant's internal control over financial reporting that occurred during the Registrant's most recent fiscal quarter (the Registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Registrant's internal control over financial reporting; and
5. The Registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Registrant's auditors and the audit committee of the Registrant's board of directors (or persons performing the equivalent functions):
 - a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Registrant's ability to record, process, summarize and report financial information; and
 - b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Registrant's internal control over financial reporting.

Date: November 14, 2023

/s/ L. Lynn Smull

L. Lynn Smull
Chief Financial Officer
(Principal Accounting Officer)

**CERTIFICATIONS PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002
(18 U.S.C. SECTION 1350)**

I, Patrick R. Gruber, Chief Executive Officer of Gevo, Inc. (the "Company"), and I, L. Lynn Smull, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Quarterly Report on Form 10-Q of the Company for the quarter ended September 30, 2023 (the "Report"), fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company for the period covered by the Report.

Date: November 14, 2023

/s/ Patrick R. Gruber

Patrick R. Gruber
Chief Executive Officer
(Principal Executive Officer)

/s/ L. Lynn Smull

L. Lynn Smull
Chief Financial Officer
(Principal Accounting Officer)
