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

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2024

OR

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

Commission file number 001-40282

LanzaTech Global, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**92-2018969**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

8045 Lamon Avenue, Suite 400
Skokie, IL 60077
(847) 324-2400
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock	**LNZA**	**Nasdaq Capital Market**
Warrants	**LNZAW**	**Nasdaq Capital Market**

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

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

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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 Act). Yes ☐ No ☒

The registrant had outstanding 197,782,055 shares of common stock as of September 30, 2024.

Table of Contents

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q filed by LanzaTech Global, Inc. together with its consolidated subsidiaries, contains statements that are forward-looking and as such are not historical facts. This includes, without limitation, statements regarding the financial position, business strategy and the plans and objectives of management for future operations. These statements constitute projections, forecasts and forward-looking statements, and are not guarantees of performance. Such statements can be identified by the fact that they do not relate strictly to historical or current facts. When used in this Quarterly Report, words such as “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “strive,” “would” and similar expressions may identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking. When we discuss our strategies or plans, we are making projections, forecasts or forward-looking statements. Such statements are based on the beliefs of, as well as assumptions made by and information currently available to, LanzaTech’s management.

Forward-looking statements may include, for example, statements about:

- our anticipated growth rate and market opportunities;
- the potential liquidity and trading of our securities;
- our ability to resolve material litigation proceedings in our favor;
- our ability to raise substantial additional financing to fund our operations and complete the development and commercialization of our process technologies;
- our assessment of the competitive landscape;
- our ability to comply with laws and regulations applicable to our business;
- our ability to enter into, successfully maintain and manage relationships with industry partners;
- the availability of governmental programs designed to incentivize the production and consumption of low-carbon fuels and carbon capture and utilization;
- our ability to adequately protect our intellectual property rights;
- our ability to attract, retain and motivate qualified personnel and to manage our growth effectively;
- our future financial performance, growth, costs and expenses, availability of resources and capital requirements;
- our ability to increase our revenue from engineering services, sales of equipment packages and sales of CarbonSmart products and to improve our operating results;
- our ability to increase our ownership stake in LanzaJet, Inc. (“LanzaJet”) through the sublicensing of LanzaJet’s technology;
- our ability to collaborate with our partners and progress projects into the construction phase; and
- our ability to implement and maintain effective internal controls.

We caution you that the foregoing list may not contain all of the forward-looking statements made in this Quarterly Report.

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including the risk factors discussed in Part II, Item 1A of this Quarterly Report and in Part I, Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2023, and in other documents that we file or furnish from time to time with the Securities and Exchange Commission (“SEC”). Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for the management of LanzaTech to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this Quarterly Report may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this Quarterly Report.

Any forward-looking statement speaks only as of the date on which it is made, and we do not undertake any obligation to publicly update or revise any forward-looking statement, whether as a result of new information, future developments or otherwise, except as required by law.

PART I - FINANCIAL INFORMATION

ITEM 1. FINANCIAL STATEMENTS

LANZATECH GLOBAL, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited, in thousands, except share and per share data)

	As of	
	September 30, 2024	December 31, 2023
Assets		
Current assets:		
Cash and cash equivalents	$ 58,741	$ 75,585
Held-to-maturity investment securities	28,121	45,159
Trade and other receivables, net of allowance	14,628	11,157
Contract assets	19,136	28,238
Other current assets	15,981	12,561
Total current assets	136,607	172,700
Property, plant and equipment, net	21,849	22,823
Right-of-use assets	25,912	18,309
Equity method investment	10,859	7,066
Equity security investment	14,990	14,990
Other non-current assets	5,999	5,736
Total assets	$ 216,216	$ 241,624
Liabilities and Shareholders’ Equity		
Current liabilities:		
Accounts payable	$ 3,121	$ 4,060
Other accrued liabilities	7,929	7,316
Warrants	2,605	7,614
Fixed Maturity Consideration and current FPA Put Option liability	20,080	—
Contract liabilities	6,449	3,198
Accrued salaries and wages	6,575	5,468
Current lease liabilities	158	126
Total current liabilities	46,917	27,782
Non-current lease liabilities	28,811	19,816
Non-current contract liabilities	6,966	8,233
Fixed Maturity Consideration	—	7,228
FPA Put Option liability	48,182	37,523
Brookfield SAFE liability	9,550	25,150
Convertible Note	61,577	—
Other long-term liabilities	608	1,421
Total liabilities	202,611	127,153
Shareholders’ Equity		
Common stock, \$0.0001 par value; 400,000,000 and 400,000,000 shares authorized, 197,782,055 and 196,642,451 shares issued and outstanding as of September 30, 2024 and December 31, 2023, respectively	19	19
Additional paid-in capital	954,035	943,960
Accumulated other comprehensive income	2,161	2,364
Accumulated deficit	(942,610)	(831,872)
Total shareholders’ equity	$ 13,605	$ 114,471
Total liabilities and shareholders' equity	$ 216,216	$ 241,624

See the accompanying Notes to the Condensed Consolidated Financial Statements.

LANZATECH GLOBAL, INC.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Unaudited, in thousands, except share and per share data)

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Revenue:				
Revenue from contracts with customers and grants	$ 5,199	$ 14,162	$ 17,684	$ 32,119
Revenue from sales of CarbonSmart products	2,209	2,258	4,010	3,265
Revenue from collaborative arrangements	917	1,566	4,469	3,116
Revenue from related party transactions	1,618	1,619	11,399	3,668
Total revenue	9,943	19,605	37,562	42,168
Cost and operating expenses:				
Cost of revenue from contracts with customers and grants (exclusive of depreciation shown below)	(5,339)	(11,862)	(14,356)	(28,835)
Cost of revenue from sales of CarbonSmart products (exclusive of depreciation shown below)	(2,116)	(1,772)	(3,649)	(2,499)
Cost of revenue from collaborative arrangements (exclusive of depreciation shown below)	(479)	(678)	(2,034)	(1,504)
Cost of revenue from related party transactions (exclusive of depreciation shown below)	(207)	(59)	(363)	(150)
Research and development expense	(22,006)	(16,645)	(60,548)	(51,839)
Depreciation expense	(1,301)	(1,376)	(4,289)	(3,981)
Selling, general and administrative expense	(11,452)	(11,808)	(34,236)	(41,095)
Total cost and operating expenses	(42,900)	(44,200)	(119,475)	(129,903)
Loss from operations	(32,957)	(24,595)	(81,913)	(87,735)
Other income (expense):				
Interest income, net	791	1,249	2,452	3,164
Other expense, net	(19,730)	(1,517)	(23,342)	(29,912)
Total other expense, net	(18,939)	(268)	(20,890)	(26,748)
Loss before income taxes	(51,896)	(24,863)	(102,803)	(114,483)
Loss from equity method investees, net	(5,535)	(463)	(7,935)	(941)
Net loss	$ (57,431)	$ (25,326)	$ (110,738)	$ (115,424)
Other comprehensive loss:				
Foreign currency translation adjustments	(48)	(1,001)	(198)	(954)
Comprehensive loss	$ (57,479)	$ (26,327)	$ (110,936)	$ (116,378)
Unpaid cumulative dividends on preferred stock	—	—	—	(4,117)
Net loss allocated to common shareholders	$ (57,431)	$ (25,326)	$ (110,738)	$ (119,541)
Net loss per common share - basic and diluted	$ (0.29)	$ (0.13)	$ (0.56)	$ (0.70)
Weighted-average number of common shares outstanding - basic and diluted	197,773,376	195,869,537	197,499,156	169,797,443

See the accompanying Notes to the Condensed Consolidated Financial Statements.

LANZATECH GLOBAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND SHAREHOLDERS' EQUITY/ DEFICIT

(Unaudited, in thousands, except share data)

	Common Stock Outstanding		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Shareholders' Equity
	Shares	Amount				
Balance as of December 31, 2023	**196,642,451**	**$ 19**	**943,960**	**(831,872)**	**2,364**	**114,471**
Stock-based compensation expense	—	—	2,625	—	—	2,625
Net loss	—	—	—	(25,508)	—	(25,508)
Issuance of common stock upon exercise of options and vesting of RSUs	1,083,026	—	234	—	—	234
Repurchase of equity instruments	—	—	(48)	—	—	(48)
Foreign currency translation	—	—	—	—	42	42
Balance as of March 31, 2024	**197,725,477**	**19**	**946,771**	**(857,380)**	**2,406**	**91,816**
Stock-based compensation expense	—	—	3,672	—	—	3,672
Net loss	—	—	—	(27,799)	—	(27,799)
Issuance of common stock upon exercise of options and vesting of RSUs	39,590	—	38	—	—	38
Foreign currency translation	—	—	—	—	(191)	(191)
Balance as of June 30, 2024	**197,765,067**	**$ 19**	**$ 950,481**	**$ (885,179)**	**$ 2,215**	**$ 67,536**
Stock-based compensation expense	—	—	3,554	—	—	3,554
Net loss	—	—	—	(57,431)	—	(57,431)
Issuance of common stock upon exercise of options	16,988	—	—	—	—	—
Other comprehensive income, net	—	—	—	—	(5)	(5)
Foreign currency translation	—	—	—	—	(49)	(49)
Balance as of September 30, 2024	197,782,055	19	954,035	(942,610)	2,161	13,605

LANZATECH GLOBAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CHANGES IN REDEEMABLE CONVERTIBLE PREFERRED STOCK AND SHAREHOLDERS' EQUITY/ DEFICIT

(Unaudited, in thousands, except share data)

	Redeemable Convertible Preferred Stock		Common Stock Outstanding		Additional Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Income	Total Shareholders' Equity
			Shares	Amount				
Balance as of December 31, 2022	**29,521,810**	**$480,631**	**2,382,358**	**$ —**	**$ 24,783**	**$ (456,245)**	**$ 2,740**	**$ (428,722)**
Retroactive application of recapitalization	99,626,583	—	8,039,693	1	(1)	—	—	—
Adjusted balance, beginning of period	**129,148,393**	**480,631**	**10,422,051**	**1**	**24,782**	**(456,245)**	**2,740**	**(428,722)**
Stock-based compensation expense	—	—	—	—	3,505	—	—	3,505
RSA vesting	—	—	2,535,825	—	—	—	—	—
Repurchase of equity instruments	—	—	(771,141)	—	(7,650)	—	—	(7,650)
Net loss	—	—	—	—	—	(63,312)	—	(63,312)
Issuance of common stock upon exercise of options	—	—	470,843	—	746	—	—	746
Exercise of a warrant, Series C and D Preferred Stock	594,309	5,890	—	—	—	—	—	—
In-kind payment of preferred dividend	—	241,529	—	—	—	(241,529)	—	(241,529)
Conversion of preferred stock into common stock	(129,742,702)	(728,050)	153,895,644	15	728,035	—	—	728,050
Recapitalization, net of transaction expenses (Note 3)	—	—	28,898,374	3	236,970	—	—	236,973
FPA prepayment	—	—	—	—	(60,547)	—	—	(60,547)
Reclassification of warrants to equity	—	—	—	—	1,800	—	—	1,800
Foreign currency translation	—	—	—	—	—	—	(49)	(49)
Balance as of March 31, 2023	**—**	**$ —**	**195,451,596**	**$ 19**	**$ 927,641**	**$ (761,086)**	**$ 2,691**	**$ 169,265**
Stock-based compensation expense	—	—	—	—	5,122	—	—	5,122
Net loss	—	—	—	—	—	(26,786)	—	(26,786)
Issuance of common stock upon exercise of options	—	—	222,906	—	331	—	—	331
Reclassification of warrants to equity	—	—	—	—	3,063	—	—	3,063
Foreign currency translation	—	—	—	—	—	—	96	96
Balance as of June 30, 2023	**—**	**$ —**	**195,674,502**	**$ 19**	**$ 936,157**	**$ (787,872)**	**$ 2,787**	**$ 151,091**
Stock-based compensation expense	—	—	—	—	3,151	—	—	3,151
Net loss	—	—	—	—	—	(25,326)	—	(25,326)
Issuance of common stock upon exercise of options	—	—	380,726	—	560	—	—	560
Foreign currency translation	—	—	—	—	—	—	(1,001)	(1,001)
Balance as of September 30, 2023	**—**	**$ —**	**196,055,228**	**$ 19**	**$ 939,868**	**$ (813,198)**	**$ 1,786**	**$ 128,475**

See the accompanying Notes to the Condensed Consolidated Financial Statements.

LANZATECH GLOBAL, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited, in thousands)

	Nine Months Ended September 30,	
	2024	**2023**
Cash Flows From Operating Activities:		
Net loss	$ (110,738)	$ (115,424)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation expense	9,739	11,933
Gain on change in fair value of SAFE and warrant liabilities	(20,609)	(14,249)
Loss on change in fair value of the FPA Put Option and the Fixed Maturity Consideration liabilities	23,511	44,661
Loss on change in fair value of Convertible Notes	21,572	—
Recoveries and provisions for losses on trade and other receivables	(700)	700
Depreciation of property, plant and equipment	4,289	3,981
Amortization of discount on debt security investment	(649)	(933)
Non-cash lease expense	1,411	946
Non-cash recognition of licensing revenue	(10,385)	(1,700)
Loss from equity method investees, net	7,935	941
Net foreign exchange gain	1,060	423
Changes in operating assets and liabilities:		
Accounts receivable, net	(2,902)	1,088
Contract assets	9,269	(6,488)
Accrued interest on debt investment	131	(178)
Other assets	(2,156)	(6,723)
Accounts payable and accrued salaries and wages	409	(1,484)
Contract liabilities	564	29
Operating lease liabilities	13	(212)
Other liabilities	(1,148)	1,124
Net cash used in operating activities	$ (69,384)	$ (81,565)
Cash Flows From Investing Activities:		
Purchase of property, plant and equipment	(3,557)	(7,137)
Purchase of debt securities	(27,083)	(93,858)
Proceeds from maturity of debt securities	44,770	50,000
Purchase of additional interest in equity method investment	—	(288)
Origination of related party loan	—	(5,212)
Net cash provided by/(used in) investing activities	$ 14,130	$ (56,495)
Cash Flows From Financing Activities:		
Proceeds from issue of equity instruments of the Company	272	—
Proceeds from the Business Combination and PIPE, net of transaction expenses (Note 3)	—	213,381
FPA prepayment	—	(60,096)
Proceeds from exercise of options	—	1,637
Repurchase of equity instruments of the Company	(48)	(7,650)
Proceeds from issuance of Convertible Note, net	40,000	—
Net cash provided by financing activities	$ 40,224	$ 147,272
Net (decrease)/increase in cash, cash equivalents and restricted cash	(15,030)	9,212
Cash, cash equivalents and restricted cash at beginning of period	76,284	83,710
Effects of currency translation on cash, cash equivalents and restricted cash	(287)	(852)
Cash, cash equivalents and restricted cash at end of period	$ 60,967	$ 92,070
Supplemental disclosure of non-cash investing and financing activities:		
Acquisition of property, plant and equipment under accounts payable	40	219
Right-of-use asset additions	9,014	—
Reclassification of capitalized costs related to the business combination to equity	—	1,514
Cashless conversion of warrants on preferred shares	—	5,890
Recognition of public and private warrant liabilities in the Business Combination	—	4,624
Reclassification of AM SAFE warrant to equity	—	1,800
Conversion of AM SAFE liability into common stock	—	29,730
Conversion of Legacy LanzaTech NZ, Inc. preferred stock and in-kind dividend into common stock	—	722,160
Reclassification of Shortfall warrant to equity	—	3,063

See the accompanying Notes to the Condensed Consolidated Financial Statements.

Note 1 — Description of the Business

LanzaTech Global, Inc., formerly known as AMCI Acquisition Corp. II (“AMCI”) prior to February 8, 2023 (the “Closing Date”) was incorporated as a Delaware corporation on January 28, 2021.

On March 8, 2022, LanzaTech NZ, Inc. ("Legacy LanzaTech") entered into an Agreement and Plan of Merger (the “Merger Agreement”) with AMCI and AMCI Merger Sub, Inc. a Delaware corporation and a wholly owned subsidiary of AMCI (“Merger Sub”). On February 8, 2023, Legacy LanzaTech completed its business combination with AMCI by which the Merger Sub merged with and into Legacy LanzaTech, with Legacy LanzaTech continuing as the surviving corporation and as a wholly owned subsidiary of AMCI (the “Business Combination”). The reporting entity is LanzaTech Global, Inc. and its subsidiaries (collectively referred to herein as “the Company”, "LanzaTech", “we”, “us”, “our”). For more information on the Business Combination, see *Note 3 - Reverse Recapitalization*.

The Company is headquartered in Skokie, Illinois, USA. The Company is a nature-based carbon refining company that transforms waste carbon into the chemical building blocks for consumer goods such as sustainable fuels, fabrics, and packaging that people use in their daily lives. The Company’s customers leverage its proven proprietary gas fermentation technology platform to conv0ert certain feedstock, including waste carbon gases, into sustainable fuels and chemicals such as ethanol. The Company performs related services such as feasibility studies, engineering services, and research and development ("R&D") in biotechnology for commercial and government entities. The Company also purchases low carbon chemicals produced at customer facilities employing the Company’s technology and sells it under the brand name CarbonSmart. We have also been developing the capabilities to produce single cell protein as a primary product from our gas fermentation platform.

As of September 30, 2024, licensees of the Company’s technology operate four commercial-scale waste-to-gas ethanol plants in China, one plant in India, and one plant in Belgium with others currently in development in various countries, compared to three commercial scale waste-to-gas ethanol plants in China as of September 30, 2023.

As a result of the Business Combination, the Company’s common stock trades under the ticker symbol “LNZA” and its Public Warrants trade under the ticker symbol “LNZAW” on the Nasdaq Stock Market. Prior to the consummation of the Business Combination, the Company’s common shares were listed on Nasdaq Stock Market under the symbol “AMCI” and the Public Warrants were listed on the Nasdaq Stock Market under the symbol “AMCI-W”. Public Warrants are defined and further described in *Note 9 - Stockholders' equity*.

Unless otherwise indicated, amounts in these financial statements are presented in thousands, except for share and per share amounts.

Note 2 — Summary of Significant Accounting Policies

Basis of Presentation and Principles of Consolidation

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with generally accepted accounting principles for interim financial information, and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America ("US GAAP"), the accounting principles, standards, and procedures adopted by the U.S. Securities and Exchange Commission, for complete financial statements. However, in the opinion of management, all adjustments (consisting of normal recurring accruals) have been made that are necessary for a fair presentation of the condensed consolidated financial statements for the interim periods. The condensed consolidated financial statements include the accounts of LanzaTech Global, Inc. and its wholly-owned consolidated subsidiaries. All intercompany transactions and balances have been eliminated in consolidation. For further information refer to the Consolidated Financial Statements and Footnotes thereto included in LanzaTech's Annual Report on Form 10-K for the year ended December 31, 2023.

The Business Combination is accounted for as a reverse recapitalization as Legacy LanzaTech was determined to be the accounting acquirer under Accounting Standards Codification (“ASC”) 805, *Business Combinations* (“ASC 805”) based on the evaluation of the following facts and circumstances:

- Legacy LanzaTech stockholders have the largest portion of voting rights (85.3% at the closing of the Business Combination) in the Company;
- Legacy LanzaTech’s existing senior management team comprise a portion of senior management of the Company;

- The operations of the Company primarily represent operations of Legacy LanzaTech; and
- In comparison with AMCI, Legacy LanzaTech has significantly more revenue and total assets.

For more information on the Business Combination, see *Note 3 - Reverse Recapitalization*.

Significant Accounting Policies

Our significant accounting policies are included in Note 2 of the Notes to our Audited Consolidated Financial Statements included in our Annual Report.

Revision of previously issued financial statements

In connection with the preparation of the Company's consolidated financial statements for the year ended December 31, 2023, the Company determined it should have classified the FPA prepayment as a cash outflow from financing activities within the consolidated statement of cash flows, instead of a cash outflow from investing activities as previously reported. The Company has corrected this classification for the nine months ended September 30, 2023 within the consolidated statement of cash flows. The company determined the incorrect classification was not material to the previously filed quarterly report. There is no impact to the Company's condensed consolidated balance sheets, condensed consolidated statements of operations and comprehensive loss, condensed consolidated statements of changes in redeemable convertible preferred stock and shareholders' equity/deficit or cash flows from operating activities.

Going Concern

The accompanying unaudited condensed consolidated financial statements of the Company have been prepared in accordance with US GAAP and assuming the Company will continue as a going concern. The going concern basis of presentation assumes that the Company will continue in operation one year after the date these financial statements are issued and will be able to realize its assets and discharge its liabilities and commitments in the normal course of business. The Company had cash and cash equivalents of $58,741, short-term held-to-maturity debt investments of $28,121 and an accumulated deficit of $(942,610) as of September 30, 2024 and cash outflows from operations of $(69,384) and a net loss of $(110,738) for the nine months ended September 30, 2024.

The Company has historically funded its operations through issuances of equity securities and debt financing. Additionally, from time to time, management evaluates options to enhance the Company's liquidity position, including the sale of securities, incurrence of debt, or other financing alternatives. Additionally, on August 6, 2024, the Company issued on a $40,000 Convertible Note as defined and further described in *Note 16 - Subsequent Events*. Based on the Company's financial position as of the date the condensed consolidated financial statements were issued, the Company projects that it will be able to cover its liquidity needs for the next twelve months.

Use of Estimates

The preparation of financial statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the consolidated financial statements, and the reported amounts of revenues and expenses during the reporting period. Significant estimates include the fair value of equity awards granted to both employees and non-employees, valuation of common stock prior to the close of the Business Combination, revenue recognized over time, AM SAFE and Brookfield SAFE obligations, AM SAFE warrants, the FPA, the Convertible Note and the Private Placement Warrants. Private Placement Warrants are defined and further described in *Note 9 - Stockholders' equity*.

The Company uses the percentage of completion for the input method to recognize revenue over time for certain contracts with customers. Under the input method, the Company exercises judgment and estimation when selecting the most indicative measure of such performance.

Most of our arrangements provide fixed consideration, however, when there are variable consideration elements, the Company estimates the transaction price and whether revenue should be constrained. Significant estimates and judgments are also used when a material right is provided to the customer. In these instances, the Company estimates the stand-alone selling price and apportions the total transaction price to this material right. Refer to the Revenue Recognition section in *Note 2 - Summary of Significant Accounting Policies* hereunder.

Changes in facts and circumstances or additional information may result in revised estimates, and actual results may differ from these estimates.

Cash and Cash Equivalents

The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase to be cash equivalents. As of September 30, 2024 and December 31, 2023, the Company had $58,741 and $75,585 of cash and cash equivalents, respectively.

Restricted Cash

The Company is required to maintain a cash deposit with a bank which consists of collateral on certain travel and expense programs maintained by the bank. The following represents a reconciliation of Cash and cash equivalents in the condensed consolidated balance sheets to total cash, cash equivalents and restricted cash in the condensed consolidated statements of cash flows as of September 30, 2024 and December 31, 2023.

	As of	
	September 30, 2024	December 31, 2023
Cash and cash equivalents	$ 58,741	$ 75,585
Restricted cash (presented within Other current assets)	2,226	699
Cash, cash equivalents and restricted cash	$ 60,967	$ 76,284

Forward Purchase Agreement

On February 3, 2023, the Company entered into a Forward Purchase Agreement (“FPA”) with ACM ARRT H LLC (“ACM”). On the same date, ACM partially assigned its rights under the FPA to Vellar Opportunity Fund SPV LLC - Series 10 (“Vellar”). ACM and Vellar are together referred to as the “Purchasers.” Pursuant to the FPA, the Purchasers obtained 5,916,514 common shares (“Recycled Shares”) on the open market for approximately $10.16 per share (“Redemption Price”), and the purchase price of $60,096 was funded by the use of AMCI trust account proceeds as a partial prepayment (“Prepayment Amount”) for the FPA redemption 3 years from the date of the Business Combination (the “ FPA Maturity Date”). The FPA Maturity Date may be accelerated, at the Purchasers’ discretion, if the Company’s volume-weighted average share price is below $3.00 per share for any 50 trading days during a 60 consecutive trading-day period (the “VWAP Condition”) or if the Company is delisted. The Purchasers have the option to early terminate the arrangement in whole or in part by providing optional early termination notice to the Company (the “Optional Early Termination”). For those shares early terminated (the “Terminated Shares”), the Purchasers will owe the Company an amount equal to the Terminated Shares times the Redemption Price, which may be reduced in the case of certain dilutive events (“Reset Price”).

At the FPA Maturity Date, the Company is obligated to pay the Purchasers an amount equal to the product of (1) 7,500,000 less the number of Terminated Shares multiplied by (2) $2.00 (the “Maturity Consideration”), which under the FPA is payable at the Company’s option in cash or shares of common stock valued at the average daily VWAP Price (as defined in the FPA) over the 30 scheduled trading days ending on the FPA Maturity Date. In addition to the Maturity Consideration, on the FPA Maturity Date, the Company is obligated to pay the Purchasers an amount equal to the product of (x) 500,000 and (y) the Redemption Price, totaling $5,079 (the “Share Consideration”), which under the FPA is payable in cash. If the Purchasers were to utilize their Optional Early Termination to terminate the FPA early in its entirety, neither the Maturity Consideration nor the Share Consideration would be due to the Purchasers.

The Purchasers’ Optional Early Termination economically results in the prepaid forward contract being akin to a written put option with the Purchasers’ right to sell all or a portion of the 5,916,514 common shares to the Company. The Company is entitled over the 36-month maturity period to either a return of the prepayment or the underlying shares, which the Purchasers will determine at their sole discretion.

The FPA consists of three freestanding financial instruments which are accounted for as follows:

1) The total prepayment of $60,547 (“Prepayment Amount”), which is accounted for as a reduction to equity to reflect the substance of the overall arrangement as a net repurchase of the Recycled Shares and sale of shares to the Purchasers pursuant to a subscription agreement.

2) The “FPA Put Option” which includes both the in-substance written put option and the portion of the Maturity Consideration in excess of the Minimum Maturity Consideration (as defined below) (the “Variable Maturity Consideration”). The FPA Put Option is a derivative instrument the Company has recorded as a liability and measured at

fair value. The initial fair value of the FPA Put Option and subsequent changes in fair value of the FPA Put Option are recorded within Other expense, net on the condensed consolidated statements of operations and comprehensive loss.

3) The "Fixed Maturity Consideration," which includes the minimum portion of the Maturity Consideration (the "Minimum Maturity Consideration"), calculated as (1) 7,500,000 less 5,916,514 multiplied by (2) $2.00 or $3,167, and the Share Consideration. Both the Minimum Maturity Consideration and the Share Consideration are considered to be free-standing debt instruments and as both will be paid on the same terms and at the same time, these are accounted for together. The Company has elected to measure these using the FVO under ASC 825, *Financial Instruments* ("ASC 825"). The Fixed Maturity Consideration is recorded as a long-term liability on the condensed consolidated balance sheets as of December 31, 2023, and was reclassified as described below as of September 30, 2024. The initial fair value of the Fixed Maturity Consideration and subsequent changes in fair value of the Fixed Maturity Consideration are recorded within Other expense, net on the condensed consolidated statements of operations and comprehensive loss.

On July 22, 2024, Vellar purported to accelerate the FPA Maturity Date with respect to its portion of the FPA in connection with the satisfaction of the VWAP Condition. It subsequently delivered to the Company a notice of default under the FPA. On July 24, 2024, the Company filed suit against Vellar under the FPA, primarily in connection with Vellar's sale of Recycled Shares (see *Note 15 - Commitments and Contingencies)*. As a result, the Company reclassified the Maturity Consideration and the Share Consideration to current liabilities on the condensed consolidated balance sheets, and the FPA Put Option excluding the Variable Maturity Consideration portion, which remains in long-term liabilities (refer to *Note 10 - Forward Purchase Agreement)*. In October 2024, ACM accelerated the FPA Maturity Date with respect to its portion of the FPA in connection with the satisfaction of the VWAP Condition, and the Company fully satisfied its obligation to ACM in accordance with the FPA's provisions (see *Note 16 - Subsequent Events*).

Convertible Note

On August 5, 2024, the Company entered into a Convertible Note Purchase Agreement (the "Convertible Note Purchase Agreement") with an accredited investor (the "Investor") pursuant to which the Company agreed to sell and issue to the Investor and other purchasers in a private placement transaction (the "Private Placement") in one or more closings up to an aggregate principal amount of $150,000 of convertible notes. As of August 6, 2024, we issued and sold a principal amount of $40,150 of convertible notes to the Investor pursuant to the Convertible Note Purchase Agreement (the "Convertible Note").

The Company has elected the fair value option for the Convertible Note at issuance, under ASC 825. Under this option, the Convertible Note is initially recognized at its fair value as a long-term liability on the condensed consolidated balance sheets with subsequent changes in fair value reflected in earnings. Interest expense is not recognized separately; rather, the change in the fair value of the debt, inclusive of interest, market risk, and other factors affecting valuation, is recorded in the condensed consolidated statements of operations and comprehensive loss as a component of other income (expense). However, the change in fair value attributable to the change in the instrument-specific credit risk is presented separately in other comprehensive income. Transaction costs of $150 were expensed as incurred and included in the condensed consolidated statements of operations and comprehensive loss as a component of other income (expense). See *Note 8 - Convertible Note*.

Fair Value of Financial Instruments

Fair value is defined as the exchange price that would be received for an asset or an exit price paid to transfer a liability in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. Valuation techniques used to measure fair value must maximize the use of observable inputs and minimize the use of unobservable inputs. The fair value hierarchy defines a three-level valuation hierarchy for disclosure of fair value measurements as follows:

Level 1 — Valuations based on quoted prices in active markets for identical assets or liabilities that an entity has the ability to access;

Level 2 — Valuations based on quoted prices for similar assets or liabilities, quoted prices for identical assets or liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities; and

Level 3 — Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The categorization of a financial instrument within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

The fair value of the Company's assets and liabilities, which qualify as financial instruments under ASC 820, *Fair Value Measurement*, approximates the carrying amounts represented in the accompanying unaudited condensed consolidated balance sheets, primarily due to their short-term nature, except for the warrant liability.

Revenue Recognition

The Company recognizes revenue from exchange transactions in accordance with ASC 606, *Revenue from Contracts with Customers* ("ASC 606") and grants from non-customers. The Company primarily earns revenue from services related to biorefining (formerly known as carbon capture and transformation) which includes techno-economic feasibility studies and basic engineering design of commercial plants, licensing of technologies and sales of biocatalysts (microbes and media). The other two revenue streams are: (1) joint development and contract research activities to develop and optimize novel biocatalysts, related processes and technologies, and (2) supply of chemical building blocks, such as ethanol, for sustainable products made using the Company's proprietary technologies (referred to as CarbonSmart).

Revenue is measured based on the consideration specified in a contract with a customer. The Company records taxes collected from customers and remitted to governmental authorities on a net basis. The Company's payment terms are between 30-60 days and can vary by customer type and products offered. Management has evaluated the terms of the Company's arrangements and determined that they do not contain significant financing components.

Biorefining

The Company provides feasibility studies and basic design and engineering services used for detailed design, procurement, and construction of commercial plants that utilize the Company's technologies, along with the sale of microbes and media. The services provided are recognized as a performance obligation satisfied over time. Revenue is recognized using the cost-to-cost input method for certain engineering services, or the labor hours input method as performance obligations are satisfied. Revenue for the sale of microbes and media is at a point in time, depending on when control transfers to the customer.

The Company licenses intellectual property to generate recurring revenue, in the case of running royalties, or one-time revenue, in the case of fixed consideration royalties, when its customers deploy the Company's technology in their biorefining plants. When licenses are considered to be distinct performance obligations, the recognition of revenue is dependent on the terms of the contract, which may include fixed consideration or royalties based on sales or usage, in which case the revenue is recognized when the subsequent sale or usage occurs or when the performance obligation to which some or all of the sales or usage-based royalty is allocated has been satisfied, whichever is later.

Grants received to perform engineering services, including cost reimbursement agreements, are assessed to determine if the agreement should be accounted for as an exchange transaction or a contribution. An agreement is accounted for as a contribution if the resource provider does not receive commensurate value in return for the assets transferred. Contributions are recognized as grant revenue as the qualifying costs related to the grant are incurred.

Joint Development and Contract Research

The Company performs R&D services related to novel technologies and development of biocatalysts for commercial applications, mainly to produce fuels and chemicals. The Company engages in two main types of R&D services – joint development agreements, and contract research, including projects with the U.S. Department of Energy and other US or foreign government agencies. Such services are recognized as a performance obligation satisfied over time. Revenue is recognized based on milestone completion, when payments are contingent upon the achievement of such milestones, or based on percentage-completion method when enforceable rights to payment exist. When no milestones or phases are clearly defined, management has determined that the cost incurred, input method, is an appropriate measure of progress towards complete satisfaction of the performance obligations under ASC 606*,* and estimates its variable consideration under the expected value method.

Revenue is not recognized in advance of customer acceptance of a milestone when such acceptance is contractually required. Payments for R&D services with no contractual payments are not due from customers until a technical report is submitted; therefore, a contract asset is recognized at milestone completion but prior to the submission of a technical report. The contract asset represents the Company's right to consideration for the services performed at milestone completion. Occasionally, customers provide payments in advance of the Company providing services which creates a contract liability for the Company. The contract liability represents the Company's obligation to provide services to a customer.

CarbonSmart

The Company purchases ethanol from the customers who have deployed our proprietary technologies in their biorefining plants and sells it and its derivatives as CarbonSmart products. Revenue is recognized at a point in time when control transfers to our end customer, which varies depending on the shipping terms. The Company acts as the principal in such transactions and accordingly, recognizes revenue and cost of revenues on a gross basis. Amounts received for sales of CarbonSmart products are classified as Revenue from sales of CarbonSmart products in the condensed consolidated statements of operations and comprehensive loss.

Collaboration Arrangements

The Company has certain partnership agreements that are within the scope of ASC 808, *Collaborative Arrangements*, which provides guidance on the presentation and disclosure of collaborative arrangements. Generally, the classification of the transaction under the collaborative arrangements is determined based on the nature of the contractual terms of the arrangement, along with the nature of the operations of the participants. The Company's collaborative agreements generally include a provision of R&D services related to novel technologies and biocatalysts. Amounts received for these services are classified as Revenue from collaborative arrangements in the consolidated statements of operations and comprehensive loss. The Company's R&D services are a major part of the Company's ongoing operations and therefore ASC 606 is applied to recognize revenue.

Cost of Revenues

The Company's R&D, engineering, and other direct costs of services and goods related to revenue agreements with customers, related parties, and collaborative partners represent cost of revenue. Costs include both internal and third-party fixed and variable costs and include materials, supplies, labor, and fringe benefits.

Research and Development

We expense as incurred costs associated with R&D activities other than those related to revenue agreements or those eligible for capitalization under applicable guidance.

Concentration of Credit Risk and Other Risks and Uncertainties

Revenue generated from the Company's customers and grant providers from outside of the United States for the three months ended September 30, 2024 and 2023 was approximately 73% and 75%, respectively. Revenue generated from the Company's customers and grant providers from outside of the United States for the nine months ended September 30, 2024 and 2023 was approximately 51% and 75%, respectively.

As of September 30, 2024 and December 31, 2023, approximately 34% and 49%, respectively, of trade accounts receivable and unbilled accounts receivable were due from customers and grant providers located outside the United States. As of September 30, 2024 and December 31, 2023, the value of property, plant, and equipment outside the United States was immaterial.

The Company's revenue by geographic region based on the contracting entities' location is presented in *Note 5 - Revenues*.

Our largest contracting entities represent 10% or greater of revenue and were as follows for the three and nine months ended September 30, 2024 and 2023:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Customer A	16 %	3 %	30 %	6 %
Customer B	19 %	36 %	16 %	39 %
Customer C	14 %	— %	4 %	— %

Recently Issued Accounting Pronouncements

ASU 2023-07, Improvements to Reportable Segment Disclosures ("ASU 2023-07")

In November 2023, the FASB issued ASU No. 2023-07, which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. In addition, the amendments enhance interim disclosure requirements, clarify circumstances in which an entity can disclose multiple segment measures of profit or loss, provide new segment disclosure requirements for entities with a single reportable segment, and contain other disclosure requirements. The purpose of the amendments is to enable investors to better understand an entity's overall performance and assess potential future cash flows. This ASU is effective for public companies with annual periods beginning after December 15, 2023, and interim periods within annual period beginning after December 15, 2024, with early adoption permitted. The Company is currently evaluating the impact that the adoption of the ASU will have on the consolidated financial statements.

ASU 2024-03, Disaggregation of Income Statement Expenses ("ASU 2024-03")

In November 2024, the FASB issued ASU No. 2024-03, which introduces new disclosure requirements for reporting entities to provide disaggregated information on specific expense categories within relevant income statement captions. The standard aims to enhance transparency by requiring a breakdown of expenses such as purchases of inventory, employee compensation, depreciation, intangible asset amortization, and depletion. Additionally, the ASU mandates that certain gains, losses, and reconciling items that align with existing US GAAP disclosures be presented in a tabular format, allowing for a more detailed understanding of a company's expense structure. The standard also requires narrative disclosure for selling expenses, including a description defined by management. This ASU is effective for public companies with annual periods beginning after December 15, 2026, and for interim periods within fiscal years beginning after December 15, 2027, with early adoption permitted. The Company is currently evaluating the impact of the adoption of the standard on our financial statement disclosures.

Note 3 — Reverse Recapitalization

On February 8, 2023, Legacy LanzaTech and AMCI consummated the merger contemplated by the Merger Agreement (see *Note 1 - Description of the Business*).

Immediately following the Business Combination, there were 196,222,737 shares of common stock outstanding with a par value of $0.0001. Additionally, there were outstanding warrants to purchase 12,574,200 shares of common stock.

As discussed in *Note 2 - Summary of Significant Accounting Policies*, the Business Combination was accounted for as a reverse recapitalization in accordance with US GAAP. Under this method, while AMCI was the legal acquirer, it has been treated as the "acquired" company for financial reporting purposes. Accordingly, the Business Combination was treated as the equivalent of pre-combination Legacy LanzaTech issuing stock for the net assets of AMCI, accompanied by a recapitalization. The net assets of AMCI were stated at historical cost, with no goodwill or other intangible assets recorded. Operations prior to the Business Combination are those of pre-combination Legacy LanzaTech. Reported shares and earnings per share available to holders of the Company's common stock and preferred shares, prior to the Business Combination, have been retroactively restated to reflect the exchange ratio established in the Business Combination (approximately one pre-combination Legacy LanzaTech share to 4.3747 of the Company's shares).

Upon closing of the Business Combination, the shareholders of AMCI, including AMCI founders, were issued 10,398,374 shares of common stock of the Company. In connection with the closing, holders of 8,351,626 shares of common stock of AMCI were redeemed at a price per share of approximately $10.16. In connection with the Closing, 18,500,000 shares of common stock of the Company were issued to PIPE investors. 15,500,000 of those shares were issued at a price per share of $10.00. The remaining 3,000,000 shares were issued upon conversion of the AM SAFE liability. The Company incurred $7,223 in transaction costs relating to the Business Combination and recorded those costs against Additional paid-in capital in the condensed consolidated balance sheets.

The number of shares of Class A common stock issued and outstanding immediately following the consummation of the Business Combination and PIPE financing were:

	Shares	Percentage
Legacy LanzaTech shares	167,324,363	85.3 %
Public stockholders	10,398,374	5.3 %
PIPE shares	18,500,000	9.4 %
Total	196,222,737	100 %

The following table reconciles the elements of the Business Combination and PIPE financing to the condensed consolidated statements of cash flows for the period ended June 30, 2024:

	Recapitalization
Cash - AMCI trust account[1]	$ 64,090
Cash - PIPE financing	155,000
Less: Transaction costs allocated to equity	(5,709)
Effect of the Business Combination and PIPE financing	$ 213,381

(1) The cash from the AMCI trust account is net of redemptions and the payment of pre-combination AMCI expenses.

The following table reconciles the elements of the Business Combination and PIPE financing to the change in Additional paid-in capital on the condensed consolidated statement of changes in redeemable preferred stock and shareholders' equity/deficit:

	Recapitalization
Cash - AMCI trust account	$ 64,090
Public Warrants and Private Placement Warrants recorded on the Closing Date	(4,624)
Cash - PIPE financing	155,000
Conversion of the AM SAFE	29,730
Transaction costs allocated to equity	(7,223)
	$ 236,973
Less: par value of shares held by PIPE investors and public stockholders	(3)
Total additional paid-in capital from recapitalization	$ 236,970

Note 4 — Net Loss Per Share

Basic net loss per share is computed by dividing net loss by the weighted-average number of shares of common stock of the Company outstanding during the period. Diluted net loss per share is computed by giving effect to all common stock equivalents of the Company, including equity-classified share-based compensation, the Brookfield SAFE, and warrants, to the extent dilutive.

The following table presents the calculation of basic and diluted net loss per share for the Company's common stock (in thousands, except shares and per share amounts):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Numerator:				
Net loss for basic and diluted earnings per common share	$ (57,431)	$ (25,326)	$ (110,738)	$ (115,424)
Unpaid cumulative dividends on preferred stock	—	—	—	(4,117)
Net loss allocated to common shareholders	$ (57,431)	$ (25,326)	$ (110,738)	(119,541)
Denominator:				
Weighted-average shares used in calculating net loss per share, basic and diluted	197,773,376	195,869,537	197,499,156	169,797,443
Net loss per common share, basic and diluted[(1)]	$ (0.29)	$ (0.13)	$ (0.56)	$ (0.70)

(1) In periods in which the Company reports a net loss, all common stock equivalents are excluded from the calculation of diluted weighted average shares outstanding because of their anti-dilutive effect on loss per share.

As of September 30, 2024 and 2023, common stock equivalents not included in the computation of loss per share because their effect would be antidilutive include the following:

	September 30,	
	2024	2023
Options	18,733,115	17,021,827
RSUs	7,769,726	7,042,901
Convertible Note	32,120,000	—
Brookfield SAFE	5,000,000	5,000,000
Warrants	16,657,686	16,657,686
Total	80,280,527	45,722,414

Note 5 — Revenues

Disaggregated Revenue

The following table presents disaggregated revenue in the following categories (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Contract Types:				
Licensing	$ 1,088	$ 1,515	$ 10,209	$ 2,902
Engineering and other services	4,861	10,912	14,439	25,572
Biorefining revenue	$ 5,949	$ 12,427	$ 24,648	$ 28,474
Joint development agreements	917	1,933	5,122	5,049
Contract research	868	2,987	3,782	5,380
Joint development and contract research revenue	$ 1,785	$ 4,920	$ 8,904	$ 10,429
CarbonSmart product	2,209	2,258	4,010	3,265
Total Revenue	$ 9,943	$ 19,605	$ 37,562	$ 42,168

The following table presents revenue from partners in collaborative arrangements and from grant contributions which are included in the table above as follows (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Revenue from partners in collaborative agreements included in the Joint development agreements above	$ 917	$ 1,566	$ 4,469	$ 3,116
Revenue from grant contributions included in Engineering and other services above	1,915	7,012	6,068	16,725

The following table presents disaggregation of the Company's revenues by customer location for the three and nine months ended September 30, 2024 and 2023 (in thousands):

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
North America	$ 2,709	$ 4,847	$ 18,298	$ 11,309
Europe, Middle East, Africa (EMEA)	4,142	10,732	13,736	25,088
Asia	2,664	2,137	4,696	2,690
Australia	428	1,889	832	3,081
Total Revenue	$ 9,943	$ 19,605	$ 37,562	$ 42,168

Contract balances

The following table provides changes in contract assets and liabilities (in thousands):

	Current Contract Assets	Current Contract Liabilities	Non-current Contract Liabilities
Balance as of December 31, 2023	$ 28,238	$ 3,198	$ 8,233
Additions to unbilled accounts receivable	30,682	—	—
Increases due to consideration received	—	9,813	—
Unbilled accounts receivable recognized in trade receivables	(39,951)	—	—
Decrease on revaluation on currency	167	—	77
Reclassification from long-term to short-term	—	2,687	(2,687)
Reclassification to revenue as a result of performance obligations satisfied	—	(11,936)	—
Additions due to LanzaJet sublicense	—	2,687	1,343
Balance as of September 30, 2024	$ 19,136	$ 6,449	$ 6,966

The decrease in contract assets was mostly due to billing certain customers and government entities for engineering and other services that were previously recorded as contract assets. As of September 30, 2024 and December 31, 2023 the Company had $14,628 and $11,157, respectively, of billed accounts receivable, net of allowance.

The increase in current contract liabilities was primarily due to the recognition of the portion of payments in shares received in advance from LanzaJet for the remaining sublicensing performance obligation (refer to *Note 6 - Investments* for further details), while the decrease in non-current contract liabilities is primarily due to the reclassification to current liabilities for performance obligations that will be completed within one year. The Company expects to recognize the amounts classified as non-current within two to three years.

Remaining performance obligations

Transaction price allocated to the remaining performance obligations represents contracted revenue that has not yet been recognized, including unearned revenue to be recognized in future periods. Transaction price allocated to remaining performance obligations is influenced by factors such as project size, duration, contract modifications, and customer-specific acceptance rights. As of September 30, 2024, we had approximately $39,620 in contracted revenue remaining to be recognized, of which $17,368 is expected to be recognized in the next twelve months.

Note 6 — Investments

HTM Debt Securities

Held to maturity ("HTM") debt securities are comprised of U.S. Treasury bills and corporate debt securities. HTM debt securities are classified as short-term or long-term based upon the contractual maturity of the underlying investment.

	September 30, 2024				
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Accrued Interest
Short-term					
US Treasury bills and notes	14,848	11	$ —	$ 14,859	$ —
Corporate debt securities	$ 13,273	$ 5	$ (2)	$ 13,276	$ 135
Total debt securities due within a year	**$ 28,121**	**$ 16**	**$ (2)**	**$ 28,135**	**$ 135**
Total HTM Debt Securities	**$ 28,121**	**$ 16**	**$ (2)**	**$ 28,135**	**$ 135**

	December 31, 2023				
(in thousands)	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Accrued Interest
Short-term					
US Treasury bills and notes	$ 20,423	$ 6	$ —	$ 20,429	$ 14
Corporate debt securities	21,736	14	(33)	21,717	209
Yankee debt securities	3,000	—	(8)	2,992	43
Total debt securities due within a year	**$ 45,159**	**$ 20**	**$ (41)**	**$ 45,138**	**$ 266**
Total HTM Debt Securities	**$ 45,159**	**$ 20**	**$ (41)**	**$ 45,138**	**$ 266**

The Company regularly reviews held-to-maturity securities for declines in fair values that are determined to be credit related. As of December 31, 2023 and September 30, 2024, the Company did not have an allowance for credit losses related to HTM securities.

Equity investments

The Company's equity investments consisted of the following (in thousands):

	As of	
	September 30, 2024	December 31, 2023
Equity Method Investment in LanzaJet	$ 10,859	$ 7,066
Equity Security Investment in SGLT	14,990	14,990
Total Investment	$ 25,849	$ 22,056

LanzaJet

On May 13, 2020, the Company contributed $15,000 in intellectual property in exchange for a 37.5% interest ("Original Interest") of LanzaJet in connection with an investment agreement ("Investment Agreement"). The Company accounts for the transaction as a revenue transaction with a customer under ASC 606. The licensing and technical support services provided are recognized as a single combined performance obligation satisfied over the expected period of those services, beginning May 2020 through December 2025.

Under the Investment Agreement, LanzaTech has a right to receive up to an aggregate of 45,000,000 additional LanzaJet shares for no additional consideration if (i) certain other LanzaJet shareholders make additional investments for the funding of the development and operation of commercial facilities that would sublicense the relevant fuel production technology from LanzaJet, or (ii) a non-LanzaJet shareholder sublicenses the Company's technology through collaboration with LanzaJet, and LanzaTech and the LanzaJet board of directors waive the requirement on a pro-rata basis.

On June 18, 2024, LanzaJet issued to LanzaTech 15,000,000 shares related to the sublicensing of the Company's technology to a non-LanzaJet shareholder, as the first tranche of the additional consideration per the Investment Agreement. This was accounted for as revenue from contract modification with a cumulative catch-up, net of intra-entity profit elimination, and as an increase in our equity method investment in LanzaJet. As a result, LanzaTech's ownership in LanzaJet increased to 37.01%.

During the three months ended September 30, 2024 and 2023, the Company recognized revenue from the Investment Agreement of $1,086 and $565 respectively, net of intra-entity profit elimination. During the nine months ended September 30, 2024 and September 30, 2023, the Company recognized revenue from this arrangement of $10,207 and $1,701 respectively, net of intra-entity profit elimination and has associated deferred revenue of $6,719 and $5,375, as of September 30, 2024 and December 31, 2023, respectively. Net intra-entity profits related to this arrangement were $257 and $107 for the three months ended September 30, 2024 and 2023 and $3,450 and $313 for the nine months ended September 30, 2024 and 2023, respectively. Intra-entity profits are amortized over a 15-year period through 2034.

In connection with the LanzaJet Note Purchase Agreement as described in *Note 14 - Related Party Transactions*, LanzaJet issued warrants that are exercisable for $0.01 by the holder when the related funds are drawn by LanzaJet. The warrants held by LanzaTech and other lenders meet the accounting criteria for in-substance common stock at the time the related note commitment is drawn by LanzaJet and the warrants become exercisable. LanzaTech committed proportionally fewer funds, and therefore received proportionally fewer warrants than the other investors. Accordingly, when warrants held by other investors become exercisable (and meet the criteria for in-substance common stock), LanzaTech's ownership is diluted. The Company recorded gain on dilution of $188 and $502 in the nine months ended September 30, 2024 and 2023, respectively. LanzaTech's ownership is subject to further dilution if LanzaJet draws additional funds committed in the LanzaJet Note Purchase Agreement and the remaining warrants are exercisable by the holders. During the three months ended September 30, 2024, LanzaJet drew additional funds committed in the LanzaJet Note Purchase Agreement and as a result our ownership in LanzaJet was diluted to 36.79%.

The carrying value of our equity method investment in LanzaJet as of September 30, 2024 and December 31, 2023 was approximately $2,900 less than our proportionate share of our equity method investees' book values, for both periods. The basis differences are largely the result of a difference in the timing of recognition of variable consideration to which we are entitled in exchange for our contribution of intellectual property to LanzaJet as discussed above. The variable consideration we may receive will be in the form of additional ownership interests and the majority of the basis difference will be reversed in connection with recognition of that variable consideration.

In connection with a sublicense agreement to LanzaJet under our license agreement with Battelle Memorial Institute ("Battelle"), LanzaTech remains responsible for any failure by LanzaJet to pay royalties due to Battelle. The fair value of LanzaTech's obligation under this guarantee was immaterial as of September 30, 2024 and December 31, 2023.

SGLT

On September 28, 2011, the Company contributed RMB 25,800 (approx. $4,000) in intellectual property in exchange for 30% of the registered capital of Beijing Shougang LanzaTech Technology Co., LTD ("SGLT"). Since then, the Company's interest in SGLT's registered capital decreased to approximately 9.31% as a result of the investment by new investors. The Company accounts for its investment in equity securities of SGLT using the alternative measurement principals as permitted under ASC 321, *Investments - Equity Securities,* because SGLT's fair value is not readily determinable. For the three and nine months ended September 30, 2024 and 2023, there was no change in the recorded amount of the investment in SGLT.

As of September 30, 2024 and December 31, 2023, there were no impairments of equity investments. During the three and nine months ended September 30, 2024 and 2023, the Company received no dividends from equity investments. See *Note 14 - Related Party Transactions*, for information on revenues, accounts receivable, contract assets and purchases and open accounts payable with its equity investments.

Note 7 — SAFE

Brookfield SAFE

On October 2, 2022, the Company entered into a Simple Agreement for Future Equity (“SAFE”) with Brookfield (the "Brookfield SAFE"). Under the Brookfield SAFE, the Company agreed to issue to Brookfield the right to certain shares of its capital stock, in exchange for the payment of $50,000 (the “Initial Purchase Amount”). The Brookfield SAFE is legal form debt. Management has elected to apply the Fair Value Option ("FVO") under ASC 825, *Financial Instruments*. As the Brookfield SAFE is accounted for under the FVO, the Brookfield SAFE is classified as a mark-to-market liability
On the fifth anniversary of the Brookfield SAFE, LanzaTech is required to repay in cash the Initial Purchase Amount less any Non-Repayable Amount (the “Remaining Amount”), as well as interest on such Remaining Amount in the high single digits, compounded annually.

For each $50,000 of aggregate equity funding required for qualifying projects presented to Brookfield in accordance with the Brookfield Framework Agreement (discussed below), the Remaining Amount will be reduced by $5,000 (such cumulative reductions the “Non-Repayable Amount”) and converted into LanzaTech Shares at $10.00 per share, which was the share price paid by the PIPE investors in the Business Combination. Interest on the corresponding amount will be forgiven. Each project presented must meet certain criteria in order to be considered a qualifying project.

Additionally, Brookfield may, at any time at its option, convert all or a portion of the Initial Purchase Amount less any amount that has already been converted or repaid into shares of LanzaTech capital stock at the same $10.00 per share price.

The Brookfield SAFE has not yet converted as a qualifying financing has not yet occurred and no qualified project investments have been presented to Brookfield as of September 30, 2024. As of September 30, 2024 and December 31, 2023, the fair value of the Brookfield SAFE was $9,550 and $25,150 respectively and was recorded within Brookfield SAFE liability on the condensed consolidated balance sheets.

Brookfield Framework Agreement

On October 2, 2022, LanzaTech entered into a framework agreement with Brookfield (the “Brookfield Framework Agreement”). Under such agreement, LanzaTech agreed to exclusively offer Brookfield the opportunity to acquire or invest in certain projects to construct commercial production facilities employing carbon capture and transformation technology in the U.S., the European Union, the United Kingdom, Canada or Mexico for which LanzaTech is solely or jointly responsible for obtaining or providing equity financing, subject to certain exceptions. LanzaTech agreed to present Brookfield with projects that over the term of the agreement require equity funding of at least $500,000 in the aggregate. With respect to projects acquired by Brookfield, LanzaTech is entitled to a percentage of free cash flow generated by such projects determined in accordance with a hurdle-based return waterfall. Brookfield has no obligation under the Brookfield Framework Agreement to invest in any of the projects. There have been no investments in projects as of September 30, 2024 or 2023.

Note 8 — Convertible Note

On August 5, 2024, the Company entered into the Convertible Note Purchase Agreement pursuant to which the Company agreed to sell and issue to the Investor and other purchasers in a private placement transaction in one or more closings up to an aggregate principal amount of $150,000 of convertible notes. As of August 6, 2024, we issued and sold $40,150 principal amount of convertible notes to the Investor pursuant to the Convertible Note Purchase Agreement. The gross proceeds from the initial closing are approximately $40,000, before deducting estimated offering expenses.

The Convertible Note bears interest at a fixed rate of 8.00% per annum, which interest will be added to the outstanding principal amount of the Convertible Note on the last day of the applicable interest period (beginning on the date of issuance and ending on and including the earlier of (x) the anniversary date of such issuance and (y) the maturity date, the “Interest Period”); provided, however, that the Company is permitted to pay all interest payable during an Interest Period in cash pursuant to prior written notice to the Convertible Note holder.

The Convertible Note will mature on August 6, 2029 (the “Convertible Note Maturity Date”), unless earlier redeemed or converted in accordance with its terms. The Convertible Note is subject to mandatory conversion for shares of the Company’s common stock, par value $0.0001 per share, upon the completion by the Company of an equity financing prior to the Convertible Note Maturity Date that results in the Company receiving minimum gross proceeds in an amount that is equal to the greater of (i) $40,000 and (ii) 50% of the total principal amount under the outstanding convertible notes immediately following the final closing under the Convertible Note Purchase Agreement (a “Qualified Equity Financing”) at a conversion price equal to the lower of (i) the lowest per-share selling price per share in the Qualified Equity Financing, less a 10% discount and (ii) the Valuation Cap (as defined below). The Convertible Note is convertible at the option of the holder upon the completion by the Company of an equity financing prior to the Convertible Note Maturity Date that does not meet the definition of a Qualified Equity Financing (a “Non-Qualified Equity Financing”) at a conversion price equal to the lower of (i) the lowest per-share selling price in the Non-Qualified Equity Financing and (ii) the Valuation Cap. The Convertible Note is also convertible at the option of the holder any time prior to the Convertible Note Maturity Date at a conversion price equal to the Valuation Cap. The "Valuation Cap" is $1.25 per share), and (ii) with respect to a Convertible Note issued at any closing subsequent to the initial closing under the Convertible Note Purchase Agreement, the price per share equal to the *greater* of (a) $1.56 and (b) the closing price per share of the Company's common stock on the date prior to such closing. The Valuation Cap is subject to adjustment based on the Company's holdings in LanzaJet, and the conversion price in all cases is subject to adjustment for stock splits, reclassifications, redesignations, subdivisions, recapitalizations, and dividends. As of the date of this filing no Qualified Equity Financing nor Non-Qualifying Financing events have occurred.

The Convertible Note may not be prepaid or redeemed by the Company, either in whole or in part, without the consent of the holder, provided that the Company may redeem and prepay the Convertible Note without such consent (i) until August 6, 2025, in an amount equal to one and one half times the redeemed principal amount thereof; (ii) between August 7, 2025 and August 6, 2027, in an amount equal to two times the redeemed principal amount; and (iii) after August 6, 2027, in an amount equal to three times the redeemed principal amount; in all such cases, any and all accrued and unpaid interest to have been repaid in connection with the redemption.

The Company elected the fair value option to account for the Convertible Note. See *Note 11 - Fair Value* for further details on the liability recorded as of September 30, 2024 and associated losses in the change of its fair value for the three months ended September 30, 2024.

Note 9 — Stockholders' equity

At-the-Market ("ATM") Program

On May 9, 2024, the Company entered into an At Market Issuance Sales Agreement (the "Sales Agreement") and a Terms Agreement (the "Terms Agreement" and, together with the Sales Agreement, the "ATM Agreements") with B. Riley Securities, Inc. ("B. Riley Securities") pursuant to which the Company may, from time to time, offer and sell through or to B. Riley Securities, as sales agent or principal, shares of the Company's common stock, having an aggregate offering price of up to $100,000.

Sales of common stock under the ATM Agreements, if any, may be made by any method that is deemed an "at the market offering" as defined in Rule 415 promulgated under the Securities Act of 1933, as amended. The shares sold in this offering, if any, will be offered through or to B. Riley Securities, acting as agent in connection with agency transactions or as principal in connection with any principal transactions. Pursuant to the Terms Agreement, the Company will have the right, but not the obligation, from time to time at its sole discretion, for as long as the Sales Agreement remains effective, to direct B. Riley Securities on any trading day to act on a principal basis and purchase up to the maximum of the lesser of a) 50% of the prior daily trading volume, or b) $180 per day as long as the closing price on the day prior exceeds $1, and up to $900 per week, and up to $40,000 per twelve-month period, subject to any applicable limitations pursuant to the rules and regulations of The Nasdaq Stock Market, LLC (the aggregate amount so purchased by B. Riley Securities under the Terms Agreement, the "Commitment"), which Commitment will be included within the aggregate offering price of up to $100,000 of Common Stock sold pursuant to the ATM Agreements; provided, however, that only one principal sale may be requested per day unless otherwise agreed to by B. Riley Securities.

B. Riley Securities will be entitled to receive from the Company a commission in an amount (i) up to 3.0% of the gross sales price per Share sold through it as agent in agency transactions and (ii) equal to 5.0% of the purchase price per Share sold to B. Riley Securities, as principal in principal transactions. The Company has agreed to provide B. Riley Securities with customary indemnification and contribution rights. The Company will also reimburse B. Riley Securities for certain specified expenses as set forth in the Sales Agreement.

The Sales Agreement may be terminated by either B. Riley Securities or the Company, as permitted therein. The Sales Agreement will automatically terminate upon the sale of all of the Shares subject to the Sales Agreement. As of September 30, 2024, LanzaTech has not sold any shares through the ATM Agreements.

Shortfall Warrants

On March 27, 2023, the Company issued an aggregate of 2,073,486 warrants to ACM and 2,010,000 warrants to Vellar pursuant to the FPA (collectively, the "Shortfall Warrants"). Each Shortfall Warrant entitles the registered holder to purchase one share of common stock at a price of $10.00 per share, subject to adjustment in the event that the Company sells, grants or otherwise issues common stock or common stock equivalents at an effective price less than the then current exercise price of the Shortfall Warrants, at any time commencing on or after March 27, 2023. A holder of a Shortfall Warrant may exercise such warrants on a cashless basis. The Shortfall Warrants expire on the fifth anniversary of their issuance. On the issuance date, the Shortfall Warrants met the definition of a derivative but did not qualify for the exception from derivative accounting under the indexation guidance and therefore met the criteria for liability classification under ASC 815-40, *Derivatives and Hedging—Contracts in Entity's Own Equity* ("ASC 815-40"). On May 13, 2023, the Company amended the Shortfall Warrant agreement. Under the amended agreement, the Shortfall Warrants meet the requirements for equity classification under ASC 815-40. Consequently, the Company recorded a gain of $2,042 as of the date of the amendment to reflect the fair value of $3,063 at the date of the amendment through Other expense, net on the condensed consolidated statements of operations and comprehensive loss and reclassified the Shortfall Warrants to Additional paid-in capital on the condensed consolidated balance sheets.

Public Warrants and Private Placement Warrants

As part of AMCI's initial public offering ("IPO"), AMCI issued warrants to third-party investors. Each public warrant entitles the holder to purchase one share of the Company's common stock at an exercise price of $11.50 per share (the "Public Warrants"). Simultaneously with the closing of the IPO, AMCI completed the private sale of warrants. Each private sale warrant allows the holder to purchase one share of the Company's common stock at $11.50 per share. Additionally, prior to the consummation of the Business Combination, AMCI issued warrants for the settlement of a working capital loan. The working capital warrants have the same terms as the private sale of warrants issued at the IPO. Warrants sold in the private sale at the IPO and the warrants issued to convert the working capital loan are collectively referred to as the "Private Placement Warrants". On the Closing Date and as of September 30, 2024, 7,499,924 Public Warrants and 4,774,276 Private Placement Warrants remained outstanding.

These warrants expire on the fifth anniversary of the Business Combination or earlier upon redemption or liquidation and became exercisable 30 days after the Business Combination.

The Company may redeem the outstanding Public Warrants:

a. in whole and not in part;

b. at a price of $0.01 per warrant;

c. upon a minimum of 30 days' prior written notice of redemption to each warrant holder; and

d. if, and only if, the closing price of the common stock equals or exceeds $18.00 per share for any 20 trading days within a 30-trading day period ending three trading days before we send the notice of redemption to the warrant holders.

The Company additionally has the ability to redeem the Public Warrants at the option of the Company when the price of common stock exceeds $10.00 per share at a price of $0.10 per warrant. In this scenario, warrant holders may choose to exercise their warrants on a cashless basis during the minimum 30-day notice period, and receive common stock in exchange for their warrants at a rate based on fair value of the common stock and the proximity to the expiration date of the warrants.

As long as the Private Placement warrants are held by AMCI Sponsor II LLC (the "Sponsor") or its permitted transferees, they are not redeemable by LanzaTech. If the Private Placement Warrants are held by holders other than the Sponsor or its permitted transferees, the Private Placement Warrants will be redeemable by LanzaTech in all redemption scenarios and exercisable by the holders on the same basis as the Public Warrants. The Sponsor, or its permitted transferees, has the option to exercise the Private Placement Warrants on a cashless basis.

The Public Warrants and Private Placement Warrants are recognized as derivative liabilities in accordance with ASC 815. Accordingly, the Company recognized the warrant instruments as liabilities at fair value as of the Closing Date, with an offsetting entry to Additional paid-in capital and adjusts the carrying value of the instruments to fair value through Other expense, net on the condensed consolidated statements of operations and comprehensive loss at each reporting period until they are exercised. The Public Warrants and Private Placement Warrants are presented within Warrants on the condensed consolidated balance sheets.

Note 10 — Forward Purchase Agreement

The FPA consists of the Prepayment Amount, the FPA Put Option and the Fixed Maturity Consideration. The Prepayment Amount of $60,547 is presented as a reduction to Additional paid-in capital in our condensed consolidated balance sheets.

As of December 31, 2023, the value of the FPA Put Option, inclusive of the Variable Maturity Consideration, is valued at $37,523 and is classified as non-current liability in the condensed consolidated balance sheets. As of September 30, 2024, the FPA Put Option is valued at $48,182 exclusive of the Variable Maturity Consideration, and remained classified as non-current liability in the condensed consolidated balance sheets. The Variable Maturity Consideration was reclassified to current in the condensed consolidated balance sheets as of September 30, 2024.

As of December 31, 2023, the Fixed Maturity Consideration is valued at $7,228 which represents the fair value of the fixed portion of the Share Consideration and the Minimum Maturity Consideration and is classified as non-current liability in the condensed consolidated balance sheets. As of September 30, 2024, the entirety of the Fixed Maturity Consideration was reclassified to current in the condensed consolidated balance sheets.

The current portion of the FPA related liabilities are valued at $20,080 as of September 30, 2024 and comprise the Fixed Maturity Consideration valued at $8,247 and the Variable portion of the Share Consideration valued at $11,833 that was included in the FPA Put Option liability previously.

Expensed transaction costs, representing the stock acquisition fees, in the amount of $451 were recorded in Other expense, net on the condensed consolidated statements of operations and comprehensive loss in the nine months ended September 30, 2023.

On July 22, 2024, Vellar purported to accelerate the FPA Maturity Date with respect to its portion of the FPA in connection with the satisfaction of the VWAP Condition. It subsequently delivered to the Company a notice of default under the FPA. On July 24, 2024, the Company filed suit against Vellar under the FPA, primarily in connection with Vellar's sale of Recycled Shares (see *Note 15 - Commitments and Contingencies)*. In October 2024, ACM accelerated the FPA Maturity Date with respect to its portion of the FPA in connection with the satisfaction of the VWAP Condition, and the Company fully satisfied its obligation to ACM in accordance with the FPA's provisions (see *Note 16 - Subsequent Events*).

Note 11 — Fair Value

The following table presents the Company's fair value hierarchy for its assets and liabilities measured at fair value as of September 30, 2024 and December 31, 2023 (in thousands):

	Fair Value Measurement as of September 30, 2024			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 29,754	$ —	$ —	$ 29,754
Total assets	$ 29,754	$ —	$ —	$ 29,754
Liabilities:				
Convertible Note	$ —	$ —	$ 61,577	$ 61,577
FPA Put Option liability	—	—	48,182	48,182
Fixed Maturity Consideration and current portion of the FPA Put Option	—	—	20,080	20,080
Brookfield SAFE liability	—	—	9,550	9,550
Private Placement Warrants	—	—	1,480	1,480
Public Warrants	1,125	—	—	1,125
Total liabilities	$ 1,125	$ —	$ 140,869	$ 141,994

	Fair Value Measurement as of December 31, 2023			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	$ 28,058	$ —	$ —	$ 28,058
Liabilities:				
FPA Put Option liability	—	—	37,523	37,523
Fixed Maturity Consideration	—	—	7,228	7,228
Brookfield SAFE liability	—	—	25,150	25,150
Private Placement Warrants	—	—	3,915	3,915
Public Warrants	3,699	—	—	3,699
Total Liabilities	$ 3,699	$ —	$ 73,816	$ 77,515

Forward Purchase Agreement

The fair value upon issuance of the FPA (both the FPA Put Option liability and Fixed Maturity Consideration) and subsequent changes in fair value are included in Other expense, net in the condensed consolidated statements of operations and comprehensive loss in the corresponding period.

The fair value of the FPA was estimated using a Monte-Carlo Simulation in a risk-neutral framework through March 31, 2024. Because the stock price already traded below the threshold of $3.00 per share for 49 days out of 50 trading days during a 60-day consecutive trading-day period, management determined that estimating the fair value of the FPA using an accelerated FPA Maturity Date was more appropriate. As such, the model calculated the value of the in-substance written put option and the portion of the Maturity Consideration in excess of the Fixed Maturity Consideration as if the Early Termination Option was exercised on June 30, 2024. The in-substance written put option was calculated as the repurchase of the Recycled Shares at the Share Price minus the Company's share price as of June 30, 2024. The Maturity Consideration was calculated as 7,500,000 multiplied by $2.00 or $15,000, which included the Fixed Maturity Consideration calculated as 7,500,000 less the Terminated Shares multiplied by $2.00, or $3,167.

The following table represents the inputs used in calculating the fair value of the prepaid forward contract and the Fixed Maturity Consideration as of September 30, 2024 and December 31, 2023:

	September 30, 2024	December 31, 2023
Stock price	$ 1.91	$ 5.03
Term (in years)	0	2.11
Expected volatility	N/A	50.0 %
Risk-free interest rate	N/A	4.16 %
Expected dividend yield	— %	— %

The Company has filed suit against Vellar under the FPA (see Note 15 - Commitments and Contingencies) and fully settled with ACM in October 2024 (see Note 16 - Subsequent Events).

Convertible Note

The Company has elected to measure the Convertible Note using the fair value option under ASC 825. As of September 30, 2024, no part of the Convertible Note has converted into the Company's common stock as no Qualified Equity Financing nor Non-Qualifying Financing events have occurred and the holders has not exercised its right to convert. The fair value of the Convertible Note was estimated using a binomial lattice model. At issuance, the Company recognized the Convertible Note liability at a fair value of $40,150 on August 6, 2024. Subsequently, the Company remeasured the liability and recognized an increase in fair value of approximately $21,422 on the condensed consolidated statements of operations and comprehensive loss within other expense, net representing the change in fair value from the initial closing to September 30, 2024, and $5 attributable to the change in the instrument-specific credit risk in other comprehensive income.

The following table represents the inputs used in calculating the fair value of the Convertible Note as of September 30, 2024 and August 6, 2024:

	September 30, 2024	August 6, 2024
Stock price	$ 1.91	$ 1.40
Term (in years)	4.85	5
Expected volatility	80.0 %	85.0 %
Risk-free interest rate	3.50 %	3.70 %
Expected dividend yield	— %	— %

Brookfield SAFE

The Brookfield SAFE is legal form debt that the Company has elected to measure using the FVO under ASC 825. As of September 30, 2024, no part of the Brookfield SAFE has converted to Company common shares as no qualifying projects have been presented to Brookfield yet. There were no cash flows associated with the Brookfield SAFE in the three months ended September 30, 2024.

As of September 30, 2024, the Company expects to present sufficient projects to Brookfield to result in the Brookfield SAFE being automatically converted into shares. Since the liquidity price was set at the Business Combination, the number of shares that Brookfield receives is fixed. Based on this expectation, the value of the Brookfield SAFE is equal to the Brookfield SAFE's as-converted value, which is the initial purchase amount, divided by the liquidity price, multiplied by the stock price, resulting in an estimated fair value of $9,550 recorded on the condensed consolidated balance sheet.

Significant inputs for Level 3 Brookfield SAFE measurement at September 30, 2024 and December 31, 2023 are as follows:

	September 30, 2024	December 31, 2023
Initial purchase amount	$ 50,000	$ 50,000
Liquidity price	$ 10.00	$ 10.00
Stock price	$ 1.91	$ 5.03

Public Warrants and Private Placement Warrants

For the Public Warrants, the Company uses inputs such as actual trade data, quoted market prices from dealers or brokers, and other similar sources to determine the fair value. Changes in fair value are recorded in Other expense, net within the condensed consolidated statements of operations and comprehensive loss. The Company recognized decreases in the fair value of the liability of $2,574 and $2,100 during the nine months ended September 30, 2024 and 2023, respectively.

The fair value of the Private Placement Warrants was estimated using a Black-Scholes option pricing model. For the nine months ended September 30, 2024, the Company recognized a decrease in the fair value of $2,435. For the nine months ended September 30, 2023, the Company recognized an increase in the fair value of liabilities of approximately $2,912. Changes in fair value are recorded on the condensed consolidated statements of operations and comprehensive loss within Other expense, net.

The following table represents the weighted average inputs used in calculating the fair value of the Private Placement Warrants outstanding as of September 30, 2024 and December 31, 2023:

	September 30, 2024	December 31, 2023
Stock price	$ 1.91	$ 5.03
Exercise price	$ 11.50	$ 11.50
Term (in years)	3.36	4.11
Expected volatility	77.5 %	45.0 %
Risk-free interest rate	3.58 %	3.92 %
Expected dividend yield	— %	— %

The following tables represent reconciliations of the fair value measurements of the assets and liabilities using significant unobservable inputs (Level 3) (in thousands):

	Convertible Note	FPA Put Option	Fixed Maturity Consideration	Brookfield SAFE	Private Placement Warrants
Balance as of January 1, 2024	$ —	$ (37,523)	$ (7,228)	$ (25,150)	$ (3,914)
Issuance of the Convertible Note	(40,150)	—	—	—	—
(Loss) gain recognized in other expense, net on the condensed consolidated statement of operations and comprehensive loss	(21,427)	(22,492)	(1,019)	15,600	2,434
Balance as of September 30, 2024	$ (61,577)	$ (60,015)	$ (8,247)	$ (9,550)	$ (1,480)

	FPA Put Option	Fixed Maturity Consideration	Shortfall Warrants	Warrants on Preferred Shares	AM SAFE liability	AM SAFE warrant	Brookfield SAFE	Private Placement Warrants
Balance as of January 1, 2023	$ —	$ —	$ —	$ (2,119)	$ (28,986)	$ (1,989)	$ (50,000)	$ —
Recognized as a result of the Business Combination	—	—	—	—	—	—	—	(2,148)
(Loss) gain recognized in other expense, net on the consolidated statement of operations and comprehensive loss	(38,092)	(7,020)	(3,063)	(3,770)	(744)	189	26,650	(2,912)
Conversion of warrants to preferred shares	—	—	—	5,889	—	—	—	—
Conversion of SAFE liability to equity classification	—	—	—	—	29,730	—	—	—
Reclassification of warrant to equity	—	—	3,063	—	—	1,800	—	—
Balance as of September 30, 2023	$ (38,092)	$ (7,020)	$ —	$ —	$ —	$ —	$ (23,350)	$ (5,060)

Note 12 — Income Taxes

The Company is subject to federal and state income taxes in the United States, as well as income taxes in foreign jurisdictions in which it conducts business. The Company does not provide for federal income taxes on the undistributed earnings of its foreign subsidiaries as such earnings are reinvested indefinitely. The Company and its foreign subsidiaries have historically been loss generating entities that have resulted in no excess earnings to consider for repatriation and accordingly there are no deferred income taxes recognized for the periods ended September 30, 2024 and 2023.

The Company recorded no income tax expense for the nine months ended September 30, 2024 and 2023, representing an effective tax rate of 0%. The difference between the U.S. federal statutory rate of 21% and the Company's effective tax rate in the nine months ended September 30, 2024 and 2023 is primarily due to a full valuation allowance related to the Company's U.S. and foreign deferred tax assets. The Company reassesses the need for a valuation allowance on a quarterly basis. If it is determined that a portion or all of the valuation allowance is not required, it will generally be a benefit to the income tax provision in the period such determination is made.

The Company conducts business in multiple jurisdictions within and outside the United States. Consequently, the Company is subject to periodic income tax examinations by domestic and foreign income tax authorities. The Company is subject to audits for tax years 2017 and onward for federal purposes. There are tax years which remain subject to examination in various other state and foreign jurisdictions that are not material to the Company's financial statements.

The Organization for Economic Co-operation and Development (OECD) has a framework to implement a global minimum corporate tax of 15% for companies with global revenues and profits above certain thresholds (referred to as Pillar 2), with certain aspects of Pillar 2 effective January 1, 2024 and other aspects effective January 1, 2025. While it is uncertain whether the U.S. will enact legislation to adopt Pillar 2, certain countries in which we operate have adopted legislation, and other countries are in the process of introducing legislation to implement Pillar 2. We do not anticipate Pillar 2 to have material impacts on our effective tax rate, financial position or cash flows during the current year.

Note 13 — Share-Based Compensation

The Company adopted the LanzaTech 2023 Long-Term Incentive Plan (the “LTIP”) in conjunction with the closing of the Business Combination. The LTIP provides for grants of a variety of awards to employees, directors, and other service providers to the Company, including, but not limited to stock options, stock appreciation rights, restricted stock awards, restricted stock units, performance awards and other stock-based awards or cash incentives. Prior to the effective date of the closing of the Business Combination, the Company granted awards under the LanzaTech NZ Inc. 2013 Stock Plan, the LanzaTech NZ Inc. 2015 Stock Plan, and the LanzaTech NZ, Inc. 2019 Stock Plan, (collectively, the “Prior Stock Plans”).

Equity Classified Awards:

RSUs

Under the LTIP, the Company has granted two types of RSUs: time-based RSUs, and market-based RSUs. Time-based RSUs granted to employees and other service providers (other than directors) are generally subject to a three-year annual pro-rata vesting schedule whereby the awards generally vest in 3 equal tranches on the first, second, and third anniversaries of the vesting commencement date, subject to grantee’s continued service through each vesting date. However, vesting will accelerate in certain circumstances (e.g., retirement, death, disability, or a qualified termination in connection with a change in control). Time-based RSUs granted to directors are subject to a one-year vesting schedule and the full award vests on the first anniversary of the vesting commencement date, subject to the director’s continued service through the vesting date. However, vesting will accelerate in certain circumstances (e.g., removal in connection with a change in control).

The market-based RSUs have both a time-based and a market-based vesting component. Both components must be met for the award to vest. The market-based RSUs are subject to a three-year annual pro-rata vesting schedule whereby the awards generally vest in 3 equal tranches on the first, second, and third anniversaries of the vesting commencement date, subject to grantee's continued service through each vesting date. The market-based vesting component is satisfied if on any date during the period beginning on the 151st date following the vesting commencement date and ending on the fifth anniversary of the vesting commencement date, the average closing price of a share of the Company's common stock, equals or exceeds $11.50, determined using the closing share price from the 20 trading days preceding such determination date.

A summary of the unvested time-based and market-based equity-classified RSUs are presented in the following table:

	Time-based RSUs		Market-based RSUs	
	Shares (in thousands)	**Weighted Average Grant Date Fair Value**	**Shares (in thousands)**	**Weighted Average Grant Date Fair Value**
January 1, 2024	3,155	$ 3.51	3,930	$ 1.69
Granted	2,313	3.06	—	—
Vested	(1,069)	3.49	(253)	1.61
Cancelled/forfeited	(346)	3.33	(214)	1.61
September 30, 2024	4,053	$ 3.27	3,463	$ 1.70

The Company recorded compensation expense related to the time-based RSUs of $1,525 and $913 for the three months ended September 30, 2024 and 2023, respectively. The Company recorded compensation expense of $3,866 and $2,157 for the nine months ended September 30, 2024 and 2023, respectively. Unrecognized compensation costs as of September 30, 2024 were $9,970 and will be recognized over a weighted average of 1.95 years.

The Company recorded compensation expense related to the market-based RSUs of $437 and $982 for the three months ended September 30, 2024 and 2023, respectively. The Company recorded compensation expense related to the market-based RSUs of $1,551 and $2,437 for the nine months ended September 30, 2024 and 2023, respectively. Unrecognized compensation costs as of September 30, 2024 were 1,303 and will be recognized over a weighted average of 1.13 years.

Stock Options

In accordance with the LTIP and Prior Stock Plans, grantees have also been granted stock options to purchase common shares. The exercise price of each stock option was no less than the fair market value price of the Company's common shares determined as of the date of grant. The stock options generally vest over the course of two to five years, subject to the service provider's continued service through each vesting date. Upon termination of service, unvested stock options are forfeited in accordance with their terms unless the award agreement provides for accelerated vesting (e.g., due to retirement). The below tables reflect the stock options granted prior to the Business Combination multiplied by the exchange ratio and the weighted average exercise price divided by the exchange ratio.

Stock option awards outstanding as of September 30, 2024 and changes during the period ended September 30, 2024 were as follows:

	Shares subject to option (thousands)	Weighted average exercise price	Weighted average remaining contractual term (years)	Aggregate intrinsic value (thousands)
Outstanding at January 1, 2024	16,412	$ 1.96		
Vested and expecting to vest at January 1, 2024	16,412	1.96		
Exercisable at January 1, 2024	10,869	1.49		
Granted	3,254	3.10		
Exercised	(186)	1.46		
Cancelled/forfeited	(555)	3.31		
Expired	(192)	3.15		
Outstanding at September 30, 2024	18,733	$ 2.11	5.85	$ 7,067
Vested and expecting to vest at September 30, 2024	18,733	2.11	5.85	7,067
Exercisable at September 30, 2024	12,811	$ 1.67	4.55	$ 6,546

The Company recorded compensation expense related to the options of $1,694 and $1,234 for the three months ended September 30, 2024 and 2023, respectively. The Company recorded compensation expense related to the options of $4,536 and $4,443 for the nine months ended September 30, 2024 and 2023, respectively. Unrecognized compensation costs as of September 30, 2024 were $9,972 and will be recognized over a weighted average of 1.98 years.

Restricted Stock Awards ("RSAs")

Under the Prior Stock Plans, the Company granted RSAs which become eligible to vest upon the satisfaction of a time-based service condition. However, in order to vest, a liquidity event, defined as acquisition, asset transfer, or initial listing, must occur within 10 years from the grant date. Upon a liquidity event, if the participant's service has not terminated, the entire RSA award vests in full, whether or not previously eligible for vesting. If the participant's service has terminated and the participant has satisfied the time-based service condition, the RSAs that are outstanding and eligible for vesting immediately vest in full upon liquidity event. The time-based service requirements of the RSAs have a maximum term of three years from the date of grant.

The Business Combination constituted a "liquidity event" which caused the vesting of all such outstanding, unvested RSAs. The vesting of the RSAs resulted in compensation expense of $2,741 for the nine months ended September 30, 2023. In connection with the vesting of these RSAs, certain holders of the RSAs surrendered 771,141 shares in a withhold to cover transaction to fund the payment of applicable tax withholding on their behalf by the Company. This resulted in a total cash payment of $7,650 by the Company to the Internal Revenue Service for the applicable tax withholding associated with this vesting event.

Liability-Classified Awards

Phantom RSUs

Under a phantom equity sub-plan of the LTIP, certain non-US employees of the Company were provided with Phantom RSUs that can only be settled in cash and are therefore recorded as a liability. The Phantom RSUs have a graded vesting schedule and vest in 3 equal tranches on the first, second, and third anniversaries of the vesting commencement date, subject to the employee meeting the requisite service requirements. Grantees are entitled to receive a cash payment equal to the fair market value of a share multiplied by the number of vested Phantom RSUs as of the applicable vesting date.

Phantom SARs

Under a phantom equity sub-plan of the LTIP, certain non-US employees of the company were provided with Phantom SARs that can only be settled in cash and are therefore recorded as a liability. The Phantom SARs have a graded vesting schedule and vest in three equal tranches on the first, second, and third anniversaries of the vesting commencement date, subject to the employee meeting the requisite service requirements. Phantom SARs expire 10 years after the grant date and entitle the grantee to receive a cash payment upon exercise of the award equal to the excess of the fair market value of a share on the date of exercise over the exercise price multiplied by the number of SARs exercised.

Note 14 — Related Party Transactions

As of September 30, 2024 and December 31, 2023, the Company has an equity ownership in LanzaJet and SGLT (see *Note 6 - Investments* for further details). The table below summarizes amounts related to transactions with these related parties (in thousands):

	As of	
	September 30, 2024	December 31, 2023
Accounts receivable	$ 2,182	$ 2,190
Contract Assets	461	659
Notes receivable	5,698	5,436
Accounts payable	157	582

The following table presents revenue from related parties per disaggregated revenue categories:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Revenue from related parties, included within Licensing	$ 1,088	$ 1,515	$ 10,209	$ 2,902
Revenue from related parties, included within Engineering and other services	530	104	1,190	766

The main transactions with related parties are described below:

LanzaJet

The Company and LanzaJet have entered into a master service agreement defining the terms when LanzaJet is a subcontractor for some of the Company's projects, and conversely, when the Company is a subcontractor for LanzaJet's projects. The accounts payable balance is for work that LanzaJet performed as a subcontractor to the Company.

In connection with the formation of LanzaJet, the Company entered into a transition services agreement with LanzaJet. The transition services agreement generally sets out the respective rights, responsibilities and obligations of the Company and LanzaJet with respect to R&D services, access to office and laboratory space, business development and other administrative support services. The transition services agreement may be terminated by mutual consent of the Company and LanzaJet, by LanzaJet at any time, and by the Company upon breach or non-payment by LanzaJet. There are no substantive termination penalties in the event the Company terminates. For the three months ended September 30, 2024 and 2023, the Company recognized revenue of approximately $63 and $97, respectively, under the transition services agreement. For the nine months ended September 30, 2024 and 2023, the Company recognized revenue from related parties of approximately $150 and $209, respectively, under the transition services agreement.

In addition to the licensing and sublicensing of its intellectual property, pursuant to the Investment Agreement as described in *Note 6 - Investments*, the Company provides certain engineering and other services related to a gas-to-jet demonstration plant currently in development by LanzaJet and other projects whereby LanzaJet is the customer. The Company recognized revenue of $15 and $6, respectively, for the three months ended September 30, 2024 and 2023. The Company recognized revenue of $44 and $446, respectively, for the nine months ended September 30, 2024 and 2023.

In December 2023, LanzaTech sold LanzaJet the right to utilize some of LanzaTech's completed engineering work as a basis for future LanzaJet projects. The Company recognized $58 and $173 in deferred profit for the three and nine months ended September 30, 2024.

LanzaJet Note Purchase Agreement

On November 9, 2022, the Company and the other LanzaJet shareholders entered into a Note Purchase Agreement (the "LanzaJet Note Purchase Agreement"), pursuant to which LanzaJet Freedom Pines Fuels LLC ("FPF"), a wholly owned subsidiary of LanzaJet, will issue, from time to time, notes in an aggregate principal amount of up to $147,000 (the "Notes"), comprised of approximately $113,500 aggregate principal amount of 6.00% Senior Secured Notes maturing December 31, 2043 and $33,500 aggregate principal amount of 6.00% Subordinated Secured Notes maturing December 31, 2043. The Company committed to purchase $5,500 of Subordinated Secured Notes, which was funded on May 1, 2023. The Senior Secured Notes are secured by a security interest over substantially all assets of FPF, and both the Senior Secured Notes and the Subordinated Secured Notes are secured by a security interest over the intellectual property owned or in-licensed by LanzaJet.

Each purchaser of Notes under the LanzaJet Note Purchase Agreement also received a warrant for the right to purchase 575,000 shares of common stock of LanzaJet for each $10,000 of Notes purchased by such purchaser for an exercise price of $0.01 per share. The warrants are exercisable when the related loan commitment is funded, and may be exercised until the earlier of the third anniversary following the date the holder's loan commitment is fully funded, or the end of the availability period as defined in the LanzaJet Note Purchase Agreement if the commitment has not been fully funded. In the case of the Company, LanzaTech received warrants to purchase 316,250 shares of common stock of LanzaJet, which became exercisable by the Company when the note was funded on May 1, 2023. The Company exercised the warrants in January 2024. Upon funding of the Notes, the warrants meet the accounting criteria to be considered in-substance common stock, and are accounted for as part of the equity-method investment. Refer to *Note 6 - Investments*.

The LanzaJet Note Purchase Agreement may be amended with the approval of holders of at least 66 2⁄3% of the Notes, except with respect to certain rights that require approval of all holders to amend. Upon an event of default under the LanzaJet Note Purchase Agreement, each purchaser may accelerate the payment of its own Notes. Enforcement against the collateral securing the Notes requires the approval of certain holders as specified in the Notes.

SGLT

The Company supplies SGLT with certain water-soluble organic compounds required in the Company's proprietary gas fermentation process, small-size equipment and consulting services. For the three months ended September 30, 2024 and 2023, the Company recognized revenue of approximately $57 and $0, respectively. For the nine months ended September 30, 2024 and 2023, the Company recognized revenue of approximately $108 and $75, respectively. The Company also provided engineering services and incurred costs of $328 and $199 for the three months ended September 30, 2024 and 2023, and provided engineering services and incurred costs of $783 and $612 for the nine months ended September 30, 2024 and 2023, respectively.

Additionally, LanzaTech and SGLT entered into a license agreement in 2019, subsequently amended in August 2023, to provide SGLT with the right to sublicense the intellectual property that LanzaTech previously licensed to SGLT. In exchange, the Company is entitled to receive fixed licensing consideration, calculated as a percentage of the maximum amount of royalties owed to SGLT from its sublicenses. Prior to June 2023, the Company was only entitled to royalties from SGLT, if SGLT received sublicense royalty payments. For the three and nine months ended September 30, 2024, the Company did not recognize any sublicensing revenue. For the three and nine months ended September 30, 2023, the Company recognized sublicensing revenues of $951 and $1,200, respectively.

Note 15 — Commitments and Contingencies

Litigation

The Company may be involved in legal proceedings and exposed to potential claims in the normal course of business. As of September 30, 2024 and December 31, 2023, the Company does not have any reasonably possible or probable losses from such claims. The Company has filed suit against Vellar under the FPA, and Vellar has filed suit against the Company, as discussed below.

Vellar lawsuit

In relation to the FPA, the Company's volume-weighted average share price was below $3.00 per share for 50 trading days during the 60 day consecutive trading period ended on July 1, 2024 (satisfying the VWAP Condition). On July 22, 2024, Vellar (one of the Purchasers) notified the Company of the satisfaction of the VWAP Condition, purporting to accelerate the FPA Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 common shares) to July 22, 2024. Vellar asserts that it is entitled to: (i) the Maturity Consideration of $7,500 (payable at the Company's option in cash or shares of common stock valued at the average daily VWAP Price (as defined in the FPA) over 30 scheduled trading days ending on the accelerated FPA Maturity Date of July 22, 2024 of $1.91 per share) and (ii) a Share Consideration of $2,539, payable in cash each due and payable on July 24, 2024. On July 25, 2024 the Company received a notice from Vellar pursuant to the FPA, stating that the Company is in default of its payment obligations. On July 30, 2024, the Company received a notice of an event of default under the FPA from Vellar that (i) designated such date as the early termination date of the FPA and (ii) purports to result in an early termination cash payment of $4,164 becoming due to Vellar (equating to the sum of the Maturity Consideration and the Share Consideration minus the VWAP Price (as defined in the FPA) (as of July 29, 2024) of Vellar's portion of the Recycled Shares).

On July 24, 2024, LanzaTech filed suit against Vellar, primarily in connection with Vellar's sale of Recycled Shares, which LanzaTech alleges are in breach of the FPA's requirement that Recycled Shares be held in a bankruptcy remote special purpose vehicle for the benefit of the Company unless the sale is noticed to the Company as part of an early termination, which Vellar has not done. In the event of a sale of Recycled Shares subject to an optional early termination, the Company is entitled to receive approximately $10.16 for each share sold (see *Note 2 - Summary of Significant Accounting Policies*). LanzaTech believes that Vellar's notice regarding the VWAP Condition and consequently, its notice of an event of default, is not valid and accordingly, that no payments are owed to Vellar in connection with the purported acceleration of the FPA Maturity Date or early termination of the FPA. The Company intends to vigorously pursue its claims against Vellar.

On October 23, 2024, Vellar filed suit against the Company, alleging breach of the FPA, and seeking $4,164 plus interest. The Company intends to vigorously defend itself against the claim. On October 24, 2024, Vellar sought advancement of certain expenses from the Company in connection with this litigation. The Company denied the request on October 28, 2024.

As of September 30, 2024, the Company does not have sufficient information to predict the outcome of the lawsuits.

Commitments

In November 2022, the Company entered into a lease for real estate to expand its headquarters in Skokie, Illinois. The lease was subsequently amended in December 2023. The lease contains multiple lease components, and the commencement date for one lease component occurred in October 2024. Accordingly, for this lease component where the lease commenced after September 30, 2024, there are no right-of-use assets or lease liabilities recorded on the condensed consolidated balance sheets as of September 30, 2024. Total lease payments through 2036 for this lease component are expected to be $136.

Note 16 — Subsequent Events

On October 2, 2024, at a Special Meeting of Stockholders of the Company, the Company's stockholders voted on and approved an amendment to the Company's Second Amended and Restated Certificate of Incorporation to increase the number of authorized shares of common stock of the Company from 400,000,000 shares to 600,000,000 shares (the “Charter Amendment”). On October 3, 2024, the Company filed the Charter Amendment with the Secretary of State of the State of Delaware. The Charter Amendment became effective upon filing.

On October 4, 2024, ACM delivered to the Company notice of satisfaction of the VWAP Condition, which accelerated the FPA Maturity Date with respect to ACM’s portion of the FPA. On October 15, 2024 and October 21, 2024, the Company paid in cash to ACM $2,539 in Share Consideration and $7,500 in Maturity Consideration, respectively, and ACM subsequently returned its Recycled Shares to the Company. As a result, the Company’s and ACM’s obligations under the FPA have been fully satisfied.

ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with our interim condensed consolidated financial statements and the related notes included in Part I, Item 1 of this Quarterly Report, and our audited consolidated financial statements and related notes included in the Company's Form 10-K filed with the Securities and Exchange Commission on February 29, 2024. This discussion and analysis may contain forward-looking statements based upon current beliefs, plans and expectations that involve risks, uncertainties, and assumptions, including, but not limited to, risks and uncertainties discussed under the heading 'Cautionary Note on Forward-Looking Statements,' and in Part II, Item IA "Risk Factors" in this Quarterly Report and in Part I, Item 1A "Risk Factors" included in our Annual Report on Form 10-K. In this section, unless otherwise indicated or the context otherwise requires, references in this section to "LanzaTech," the "Company," "we," "us," "our" and other similar terms refer to LanzaTech Global, Inc. and its consolidated subsidiaries, including LanzaTech NZ, Inc. and its consolidated subsidiaries subsequent to the Business Combination and LanzaTech NZ, Inc. and its consolidated subsidiaries prior to the Business Combination. References to "AMCI" refer to AMCI Acquisition Corp. II prior to the Business Combination.

Overview

We are a nature-based carbon refining company that develops technology to transform waste carbon into the chemical building blocks for consumer goods such as sustainable fuels, fabrics, and packaging that people use in their daily lives. Our customers leverage our proven proprietary gas fermentation technology platform to convert certain feedstock, including waste carbon gases, into sustainable fuels and chemicals such as ethanol. Today, we are focused on taking advantage of the many uses of ethanol while capitalizing on the growing preference among major companies for renewable products and environmentally-conscious manufacturing processes. We have also been developing the capabilities to produce single cell protein as a primary product from our gas fermentation platform.

LanzaTech primarily employs a licensing business model whereby our customers build, own and operate facilities that use our technology, and in return, we are paid a royalty fee based on the revenue generated from the use of our technology. We are evolving our technology licensing business model to incorporate incremental ownership and operatorship in the biorefining value chain, enabling greater control over development, financing, and product access We began operations in 2005. In 2018, through our joint venture with Shougang LanzaTech (also referred as "SGLT" herein), we established the world's first commercial waste gas-to-ethanol plant in China, followed by five more plants between 2021 and 2023 - three in China, one in India, and one in Belgium with others currently in development in various countries around the world. We also perform research and development ("R&D") services related to novel technologies and development of biocatalysts for commercial applications, mainly to produce fuels and chemicals. Recently, the Company and LanzaJet launched CirculAir™, a new joint offering and end-to-end solution utilizing LanzaTech's gas fermentation technology in conjunction with LanzaJet's Alcohol-to-Jet (ATJ) platform to produce sustainable aviation fuel and renewable diesel from a wide range of waste feedstocks.

We have not achieved operating profitability since our formation. Our net losses after tax were $(57.4) million for the three months ended September 30, 2024 and $(25.3) million for the same period in 2023. As of September 30, 2024 we had accumulated deficit of $(942.6) million compared to an accumulated deficit of $(831.9) million as of December 31, 2023. We anticipate that we will continue to incur losses until we sufficiently commercialize our technology.

Near-term, we expect engineering services, including equipment packages associated with the construction of several projects that use our technology, sale of CarbonSmart products, and project development services to drive higher revenues.

The Business Combination

On March 8, 2022, AMCI entered into the Merger Agreement with LanzaTech NZ, Inc. and AMCI Merger Sub, Inc. ("Merger Sub"). On February 8, 2023, Merger Sub merged with and into LanzaTech NZ, Inc. Upon consummation of the Business Combination, the separate corporate existence of Merger Sub ceased, and LanzaTech

NZ, Inc. survived the Business Combination and became a wholly owned subsidiary of AMCI. In connection with the consummation of the Business Combination, the combined company was renamed "LanzaTech Global, Inc.".

Basis of Presentation

LanzaTech's unaudited condensed consolidated financial statements were prepared in accordance with US GAAP. See *Note 2 - Summary of Significant Accounting Policies* to our condensed consolidated financial statements for a full description of our basis of presentation.

Key Operational and Business Metrics

In addition to the measures presented in our condensed consolidated financial statements, we review the following key business metrics to measure our performance, identify trends affecting our business, formulate business plans, and make strategic decisions that will impact the future operational results of LanzaTech. Increases or decreases in our key business metrics may not correspond with increases or decreases in our revenue.

Key Financial Metrics:

The key elements of LanzaTech's performance for the three months ended September 30, 2024 and September 30, 2023 are summarized in the tables below:

	Three Months Ended September 30,		Change	
(In thousands, except for percentages)	**2024**	**2023**	**2024 vs. 2023**	
GAAP Measures:				
Revenue	$ 9,943	$ 19,605	$ (9,662)	(49)%
Net Loss	(57,431)	(25,326)	(32,105)	127 %
Key Performance Indicators:				
One-Time Revenue	8,414	18,075	(9,661)	(53)%
Recurring Revenue [(1)]	1,529	1,530	(1)	— %
Total Revenue	$ 9,943	$ 19,605	$ (9,662)	(49)%
Cost of Revenues (ex. Depreciation) [(2)]	(8,141)	(14,371)	6,230	(43)%
Selling, general & administrative	(11,452)	(11,808)	356	(3)%
Adjusted EBITDA [(3)]	$ (27,081)	$ (19,062)	$ (8,019)	42 %

(1) Includes revenue from licensing and sales of microbes and media.

(2) Consists of costs of revenues from contracts with customers and grants (exclusive of depreciation), cost of revenue from collaboration agreements (exclusive of depreciation) and cost of revenue from related party transactions (exclusive of depreciation).

(3) Adjusted EBITDA, a non-GAAP financial measure, is calculated as net loss, excluding the impact of depreciation, interest income, net, stock-based compensation, change in fair value of warrant liabilities, change in fair value of SAFE liabilities, change in fair value of the FPA Put Option liability and Fixed Maturity Consideration, change in fair value of the Convertible Note and associated transaction costs, transaction costs on issuance of FPA, loss from equity method investees, net and other one-time costs related to the Business Combination and securities registration on Form S-4, our registration statement on Form S-1, and non-recurring regulatory matters. Adjusted EBITDA is a supplemental measure that is not a substitute for, or superior to, measures of financial performance prepared in accordance with US GAAP. Adjusted EBITDA does not represent, and should not be considered, an alternative to net income (loss), as determined in accordance with US GAAP. See "Non-GAAP Financial Measures" for additional information and reconciliation of Adjusted EBITDA to net loss, its most directly comparable US GAAP measure.

Key Financial Metrics:

The key elements of LanzaTech's performance for the nine months ended September 30, 2024 and September 30, 2023 are summarized in the tables below:

	Nine Months Ended September 30,		Change	
(In thousands, except for percentages)	**2024**	**2023**	**2024 vs. 2023**	
GAAP Measures:				
Revenue	$ 37,562	42,168	$ (4,606)	(11)%
Net Loss	(110,738)	$ (115,424)	4,686	(4)%
Key Performance Indicators:				
One-Time Revenue	26,931	38,406	(11,475)	(30)%
Recurring Revenue [(1)]	10,631	3,762	6,869	183 %
Total Revenue	$ 37,562	42,168	$ (4,606)	(11)%
Cost of Revenues (ex. Depreciation) [(2)]	(20,402)	(32,988)	12,586	(38)%
Selling, general & administrative	(34,236)	(41,095)	6,859	(17)%
Adjusted EBITDA [(3)]	$ (66,981)	(66,398)	$ (583)	1 %

(1) Includes revenue from licensing and sales of microbes and media.

(2) Consists of cost of revenues from contracts with customers and grants (exclusive of depreciation), cost of revenue from collaboration agreements (exclusive of depreciation) and cost of revenue from related party transactions (exclusive of depreciation).

(3) Adjusted EBITDA, a non-GAAP financial measure, is calculated as net loss, excluding the impact of depreciation, interest income, net, stock-based compensation, change in fair value of warrant liabilities, change in fair value of SAFE liabilities, change in fair value of the FPA Put Option liability and Fixed Maturity Consideration, change in fair value of the Convertible Note and associated transaction costs, transaction costs on issuance of FPA, loss from equity method investees, net and other one-time costs related to the Business Combination and securities registration on Form S-4, our registration statement on Form S-1, and non-recurring regulatory matters. Adjusted EBITDA is a supplemental measure that is not a substitute for, or superior to, measures of financial performance prepared in accordance with US GAAP. Adjusted EBITDA does not represent, and should not be considered, an alternative to net income (loss), as determined in accordance with US GAAP. See "*Non-GAAP Financial Measures*" for additional information and reconciliation of Adjusted EBITDA to net loss, its most directly comparable US GAAP measure.

Key Non-Financial Metrics:

	(in thousands of tonnes per annum)
Capacity as of September 30, 2023	244
Additions	64
Capacity as of September 30, 2024	308

Capacity based on LanzaTech's technology includes capacity by customers and our cost method investee, is one of the key drivers for the Company's licensing revenues given that they are usually contracted on a percentage-of-revenue, a dollars-per-tonne, or fixed-consideration basis.

Components of Operating Results

While we have offerings in multiple market segments and operate in multiple countries, we operate and manage our business as one reportable operating segment. Nearly all of our service offerings are delivered and supported on a global basis. Additionally, most of our service offerings are deployed in a similar way, and we evaluate our financial information and resources and assess the performance of these resources on a consolidated basis.

Revenues

We earn revenue through engineering and other services contracts, U.S. and foreign government contracts, joint development agreements, and licensing agreements, which, together, represent a single operating segment. Revenues can be viewed as a combination of the following:

- Biorefining which includes feasibility studies and engineering services for basic design, procurement and construction of commercial plants utilizing our technologies, and licensing of intellectual property and software when customers deploy our biorefining technology;
- Joint development and research services related to novel technologies and the development of biocatalysts; and
- Sale of CarbonSmart products to customers.

Revenue is measured based on the consideration specified in customer contracts and excludes amounts collected on behalf of third parties.

Biorefining

We provide feasibility studies and basic design and engineering services used for detailed design, procurement, and construction of commercial plants that utilize our technologies, along with the sale of equipment and microbes. The services provided are recognized as a performance obligation satisfied over time. Revenue is recognized using the cost-to-cost input method for certain engineering services or the percentage of completion method in accordance with Accounting Standards Codification (“ASC”) 606, *Revenue from Contracts with Customers* (“ASC 606”). Revenue for the sale of microbes and media is recognized at a point in time, depending on when control transfers to the customer.

We license intellectual property to generate recurring revenue in the case of running royalties, or one-time revenue, in the case of fixed consideration royalties, when our customers deploy our technology in their biorefining plants. When licenses are considered to be distinct performance obligations, the recognition of revenue is dependent on the terms of the contract, which may include fixed consideration or royalties based on sales or usage, in which case, the revenue is recognized when the subsequent sale or usage occurs or when the performance obligation to which some or all of the sales or usage-based royalty is allocated or has been satisfied, whichever is later.

Joint Development and Contract Research

We perform R&D services related to novel technologies and the development of biocatalysts for commercial applications, mainly to produce fuels and chemicals. We engage in two main types of R&D services – joint development agreements, and other contract research, including projects with the U.S. Department of Energy. Such services are recognized as a performance obligation satisfied over time. Revenue is recognized based on milestone completion, when payments are contingent upon the achievement of such milestones, or based on stage of contract or phase completion when enforceable rights to payment exist. When no milestones or stages are clearly defined, management has determined that the cost incurred, input method, is an appropriate measure of progress toward complete satisfaction of the performance obligations under ASC 606 and estimates its variable consideration under the expected value method.

Revenue is not recognized in advance of customer acceptance of a milestone, when such acceptance is contractually required. Payments for R&D services with no contractual payments are not due from customers until a technical report is submitted; therefore, a contract asset is recognized at milestone completion but prior to the submission of a technical report. The contract asset represents the Company's right to consideration for the services performed at milestone completion. Occasionally, customers provide payments in advance of us providing services which creates a contract liability for the Company. The contract liability represents our obligation to provide services to a customer.

CarbonSmart

We sell CarbonSmart products and intermediaries directly to customers, that derive from the ethanol we purchased from our licensed plants using the Company's proprietary technologies. Revenue is recognized at a point in time when control transfers to the customer, which varies depending on the shipping terms. We generally act as the principal in such transactions and accordingly, recognize revenue and cost of revenues on a gross basis.

Cost of Revenues

Costs include both internal and third-party fixed and variable costs and include materials, supplies, labor, and fringe benefits. They also include R&D costs associated with external projects, engineering, and other direct costs of services that are related to revenue agreements with customers, grantors, related parties, and collaborative partners, and represent costs of revenue.

Research and Development Expenses

R&D costs associated with internal R&D projects consist of personnel costs, external services, materials and supplies as well as various laboratory activities. Indirect R&D costs include depreciation and other indirect overhead expenses. We expect our R&D activities to increase in the future as revenue grows but decrease as a percentage of our overall cost structure.

Selling, General and Administrative Expenses

Selling, general and administrative expenses ("SG&A") consist primarily of personnel costs, costs of general corporate development activities, travel-related expenses, and other indirect overhead costs.

Our general and administrative expenses consist primarily of personnel costs for our executive, finance, corporate and other administrative functions, intellectual property and patent costs, facilities and other allocated expenses, other expenses for outside professional services, including legal, human resources, audit and accounting services, and insurance costs. Our general and administrative expenses were higher in the first quarter of 2023 as a result of becoming a public company, including additional costs relating to compliance with the rules and regulations of the SEC and stock exchange rules, legal and audit services, additional insurance, investor relations activities, and other administrative and professional services. The costs have started to stabilize, but we expect them to remain at higher levels than they were prior to the Business Combination. We also expect our intellectual property expenses to increase as we expand and increase protection of our intellectual property portfolio.

Other Expense, Net

Other expense, net relates to miscellaneous other income and expenses and foreign currency gains and losses. These items include the mark-to-market adjustments on all liability classified warrants, the FPA Put Option liability, the Fixed Maturity Consideration, Convertible Note, and SAFE liabilities. Interest income, net consists of income earned from our cash, cash equivalents and debt security investments. Our interest income has increased following the completion of the Business Combination as we invested the net proceeds in a variety of capital preservation financial instruments, including short-term, investment-grade, interest-bearing obligations of the U.S. government and its agencies.

Loss (Gain) from Equity Investees, Net

We hold interests in LanzaJet located in the United States, and the Shougang Joint Venture (SGLT) located in China which we have determined to be variable interest entities ("*VIEs*") for which it has been determined we are not the primary beneficiary. Our variable interests primarily relate to entities in which we have a non-controlling equity interest. Although these financial arrangements resulted in holding variable interests in these entities, they do not empower us to direct the activities of the VIEs that most significantly impact the VIEs' economic performance, therefore LanzaTech has determined it is not the primary beneficiary and does not currently consolidate these VIEs.

The Company currently has a license agreement with SGLT and a letter agreement with SGLT and Sinopec Capital Co., Ltd related to the use of our intellectual property and potential collaborations. These agreements do not provide LanzaTech with the power to direct the activities that are most significant to the economic performance of these entities.

Through our holdings in LanzaJet, our representation on the board of directors and participation in the policy-making process, as well as the material intra-entity transactions, we have determined that we can exercise significant influence over the activities of LanzaJet. Our interest in LanzaJet is accounted for under the equity method of accounting, with income (loss) from equity method investees, net recognized in our consolidated statements of operations and comprehensive loss and equity method investments recognized on our consolidated balance sheets.

Income Tax

Current and deferred taxes are calculated based on tax rates enacted or substantively enacted at the reporting date and are recognized in profit or loss except when the tax relates to items charged or credited to other comprehensive income, in which case the tax is also recognized in other comprehensive income. Deferred tax is recognized in respect of temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the financial statements. Deferred tax assets including those relating to temporary differences, net operating loss carryforwards and tax credit carryforwards, are only recognized to the extent it is more likely than not that future taxable income will be available to utilize the temporary differences and carryforwards. Our net operating loss carryforwards are subject to shareholder continuity rules, and may be impacted by future fundraising activities.

We maintain a valuation allowance against the full value of our net deferred tax assets because management believes the recoverability of the tax assets is not more likely than not.

Results of Operations — Three Months Ended September 30, 2024 Compared to Three Months Ended September 30, 2023

The results of operations presented below should be reviewed in conjunction with our condensed consolidated financial statements and notes. The following table sets forth our consolidated results of operations for the periods indicated:

	Three Months Ended September 30,		Change	
	2024	2023	2024 vs. 2023	
(In thousands, except for per share amounts)				
Total revenue	$ 9,943	$ 19,605	$ (9,662)	(49) %
Cost of revenue (exclusive of depreciation shown below)	(8,141)	(14,371)	6,230	(43) %
Operating expenses:				
Research and development	(22,006)	(16,645)	(5,361)	32 %
Depreciation expense	(1,301)	(1,376)	75	(5) %
Selling, general and administrative expense	(11,452)	(11,808)	356	(3) %
Total operating expenses	**(34,759)**	**(29,829)**	**(4,930)**	**17 %**
Loss from operations	(32,957)	(24,595)	(8,362)	34 %
Interest income, net	791	1,249	(458)	(37) %
Other expense, net	(19,730)	(1,517)	(18,213)	1201 %
Total other expense, net	(18,939)	(268)	(18,671)	N/M
Loss before income taxes	**(51,896)**	**(24,863)**	**(27,033)**	**109 %**
Loss from equity method investees, net	(5,535)	(463)	(5,072)	1095 %
Net loss	**$ (57,431)**	**$ (25,326)**	**$ (32,105)**	**127 %**
Other comprehensive loss:				
Foreign currency translation adjustments	(48)	(1,001)	953	95 %
Comprehensive loss	**$ (57,479)**	**$ (26,327)**	**$ (31,152)**	**118 %**
Net loss per share - basic and diluted	$ (0.29)	$ (0.13)		
Weighted-average number of common shares outstanding - basic and diluted	197,773,376	195,869,537		

Revenue

Total revenue decreased $(9.7) million, or (49)%, in the three months ended September 30, 2024, compared to the same period in 2023. The decline was primarily driven by $(6.1) million decrease in revenue from engineering and other services contracts with existing customers and government entities whose projects reached completion of their current development phase. Revenue also decreased $(2.1) million in other contract research and $(1.0) million in joint development due to the completion of existing contracts. Licensing decreased by $(0.4) million and CarbonSmart revenue slightly decreased by $(0.1) million.

Cost of Revenue

Cost of revenue decreased $(6.2) million, or (43)%, in the three months ended September 30, 2024, compared to the same period in 2023. This decrease is primarily driven by the cost of sales for engineering and other services which decreased $(5.1) million for contracts with existing customers and government entities. Cost of sales also decreased $(1.0) million million for other contract research and $(0.4) million for joint development arrangements. This decrease was offset by costs of sales for CarbonSmart products that increased $0.3 million.

Research and Development

R&D expense increased $5.4 million, or 32%, in the three months ended September 30, 2024 compared to the same period in 2023, primarily due to an increase of $4.9 million in R&D services related to project development costs that are not currently eligible for capitalization or for which we do not have a customer as of September 30, 2024. The increase is also due to $0.5 million in personnel and contractors expenses related to R&D projects. Consumables and facilities expenses were similar compared to the same period last year.

Selling, General and Administrative Expense

SG&A expense decreased $(0.4) million, or (3)%, in the three months ended September 30, 2024 compared to the same period in 2023. This was primarily due to decrease in professional services fees of $(1.0) million. This decrease was offset by an increase of $0.4 million in personnel expenses and contractors to support growth, an increase of $0.1 million for facilities and consumable expenses and $0.1 million increase in bad debt expense.

Interest income, net

Interest income, net decreased $(0.5) million in the three months ended September 30, 2024 compared to the same period in 2023. The decrease is primarily attributable to lower interest earned on smaller cash balances held in savings, money market, and investment accounts.

Other Expense, Net

Other expense, net increased $18.2 million in the three months ended September 30, 2024, compared to the same period in 2023, which is due to the overall net loss on changes in the fair value of our financial instruments, and specifically, the increase in fair value of the Convertible Note of $21.5 million caused by the decrease in the assumed conversion price during the three months ended September 30, 2024 .

Results of Operations — Nine Months Ended September 30, 2024 Compared to Nine Months Ended September 30, 2023

The results of operations presented below should be reviewed in conjunction with our condensed consolidated financial statements and notes. The following table sets forth our consolidated results of operations for the periods indicated:

	Nine Months Ended September 30,		Change	
	2024	2023	2024 vs. 2023	
(In thousands, except for per share amounts)				
Total revenue	$ 37,562	$ 42,168	$ (4,606)	(11) %
Cost of revenues (exclusive of depreciation shown below)	(20,402)	(32,988)	12,586	(38) %
Operating expenses:				
Research and development	(60,548)	(51,839)	(8,709)	17 %
Depreciation expense	(4,289)	(3,981)	(308)	8 %
Selling, general and administrative expense	(34,236)	(41,095)	6,859	(17) %
Total operating expenses	**(99,073)**	**(96,915)**	**(2,158)**	**2 %**
Loss from operations	(81,913)	(87,735)	5,822	(7) %
Interest income, net	2,452	3,164	(712)	(23) %
Other expense, net	(23,342)	(29,912)	6,570	(22) %
Total other expense, net	(20,890)	(26,748)	5,858	N/M
Loss before income taxes	**(102,803)**	**$ (114,483)**	**11,680**	**(10)%**
Loss from equity method investees, net	(7,935)	(941)	(6,994)	743 %
Net loss	**$ (110,738)**	**$ (115,424)**	**$ 4,686**	**(4)%**
Other comprehensive loss:				
Foreign currency translation adjustments	(198)	(954)	756	79 %
Comprehensive loss	**$ (110,936)**	**$ (116,378)**	**$ 5,442**	**(5)%**
Net loss per share - basic and diluted	$ (0.56)	(0.70)		
Weighted-average number of common shares outstanding - basic and diluted	197,499,156	169,797,443		

Revenue

Total revenue decreased $(4.6) million, or (11)%, in the nine months ended September 30, 2024, compared to the same period in 2023. The decline was primarily driven by a $(11.1) million decrease in revenue from engineering and other services from contracts with existing customers and government entities whose projects reached completion of their current development phase. Revenue from other contract research also decreased $(1.6) million. These decreases were partially offset by an increase of $7.3 million in revenue from licensing, an increase of $0.7 million in CarbonSmart revenue and an increase of $0.1 million in revenue from joint development arrangements.

Cost of Revenues

Cost of revenue decreased $(12.6) million, or (38)%, in the nine months ended September 30, 2024, compared to the same period in 2023. Cost of sales for engineering and other services decreased $(12.7) million for contracts with existing customers and government entities and $(0.7) million for joint development agreements, partially offset by $1.2 million increase in cost of revenue for CarbonSmart products and $(0.4) million increase in cost of sales for other contract research.

Research and Development

R&D expense increased $8.7 million, or 17%, in the nine months ended September 30, 2024, compared to the same period in 2023, primarily due to an increase of $9.1 million in external R&D services related to project development costs that are not currently eligible for capitalization nor tied to revenue agreements, and an increase of $0.8 million in facilities and consumables expenses. Personnel and contractors expenses related to R&D projects decreased by $(1.2) million, mainly due to lower stock compensation expense, compared to the same period last year.

Selling, General and Administrative Expense

SG&A expense decreased $(6.9) million, or (17)%, in the nine months ended September 30, 2024, compared to the same period in 2023. This was primarily due to a decrease of $(4.1) million in professional fees associated with the Business Combination, as well as $(1.4) million in lower stock compensation and one-time expenses, compared to the same period last year. The decrease was also attributable to $(1.4) million in bad debt expense recorded in the comparative period and recovered in the current period. Consumables and facilities expenses were similar compared to the same period last year.

Interest income, net

Interest income, net decreased $(0.7) million in the nine months ended September 30, 2024 compared to the same period in 2023. This was primarily attributable to interest earned on lower cash balances held in savings and money market accounts.

Other Expense, Net

Other expense, net decreased $6.6 million, in the nine months ended September 30, 2024 compared to the same period in 2023, due to a lower net loss from the change in fair value of our financial instruments in the nine months ended September 30, 2024, compared to the same period in 2023, including the Convertible Note's increase in fair value caused by the decrease in the assumed conversion price. In the nine months ended September 30, 2023, the higher net loss from the change in fair value of our financial instruments was primarily due to the FPA's increase in fair value.

Liquidity and Capital Resources

Cash and Cash Equivalents

Cash and cash equivalents comprise cash on hand, demand deposits at banks, and other short-term, highly liquid investments with original maturity of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value.

The following table shows the balances of our cash, cash equivalents and restricted cash as of September 30, 2024 and December 31, 2023:

	As of		Change	
(In thousands, except for percentages)	**September 30, 2024**	**December 31, 2023**	**2024 vs. 2023**	
Total cash, cash equivalents, and restricted cash	$ 60,967	$ 76,284	$ (15,317)	(20)%

As of September 30, 2024, compared to December 31, 2023, LanzaTech's cash, cash equivalents, and restricted cash decreased by $(15.3) million, or (20)%, primarily due to funding the net loss adjusted for non-cash charges (see cash flow section below) and purchases of property, plant and equipment. The decrease was offset by the proceeds from the maturity of certain debt securities and the issuance of the Convertible Note.

Debt Security Investments

Debt security investments comprise mainly held-to-maturity U.S. Treasury and high quality corporate securities that the Company has both the ability and intent to hold to maturity. These securities all mature within one year and will provide additional liquidity upon maturity. As of September 30, 2024, held-to-maturity security investments totaled $28.1 million, compared to $45.2 million as of December 31, 2023.

Sources and Uses of Capital

Since inception, we have financed our operations primarily through equity and debt financing.

Our ability to successfully develop products and expand our business depends on many factors, including our ability to meet working capital needs, the availability of equity or debt financing and, over time, our ability to generate cash flows from operations. We manage our capital to ensure that LanzaTech can continue as a going concern while maximizing the return to stakeholders through the optimization of debt and equity balances.

As of September 30, 2024, our capital structure consists of equity (comprising issued capital, and accumulated deficit), the Brookfield SAFE and the Convertible Note. We are not subject to any externally imposed capital requirements.

On October 2, 2022, LanzaTech entered into the Brookfield SAFE with Brookfield and received a cash payment of $50.0 million as the Initial Purchase Amount. In exchange, the Company granted to Brookfield the right to receive certain shares of the Company's common stock. Following the closing of the Business Combination, Brookfield may, at any time at its option, convert all or a portion of the Initial Purchase Amount less any amount that has already been converted or repaid into shares of common stock.

LanzaTech’s outstanding debt comprises the Convertible Note, the Brookfield SAFE, the FPA Put Option Liability and the Fixed Maturity Consideration, which are all classified as liabilities for accounting purposes, on its condensed consolidated balance sheets as of September 30, 2024.

On May 1, 2023, LanzaTech purchased $5.5 million of Subordinated Secured Notes in a funding round for LanzaJet's subsidiary Freedom Pines Fuels LLC. The Subordinated Secured Notes are secured by a security interest over the intellectual property owned or in-licensed by LanzaJet. LanzaJet provides a guarantee that the proceeds are being used for any costs and expenses required to complete the initial facility and achieve commercial operation.

On February 3, 2023, LanzaTech, AMCI and ACM executed a Forward Purchase Agreement (the “FPA”). On the same date, ACM partially assigned its rights under the FPA to Vellar. ACM and Vellar are together referred to as the “Purchasers”. Pursuant to the FPA, the Purchasers obtained 5,916,514 shares of common stock on the open market for approximately $10.16 per share (“Redemption Price”), and the purchase price of $60.1 million was funded by the use of AMCI trust account proceeds as a partial prepayment (“Prepayment Amount”) for the FPA redemption 3 years from the date of the Business Combination (the “FPA Maturity Date”). The FPA Maturity Date may be accelerated, at the Purchasers’ discretion, if the Company’s volume-weighted average share price is below $3.00 per share for any 50 trading days during a 60 day consecutive trading-day period (the “VWAP Condition”) or if the Company is delisted. The Purchasers have the option to early terminate the arrangement in whole or in part by providing optional early termination notice to the Company (the “Optional Early Termination”). For those shares early terminated (the “Terminated Shares”), the Purchasers will owe the Company an amount equal to the Terminated Shares times the Redemption Price, which may be reduced in the case of certain dilutive events (“Reset Price”).

At the FPA Maturity Date, the Company is obligated to pay the Purchasers an amount equal to the product of (1) 7,500,000 less the number of Terminated Shares multiplied by (2) $2.00 (the “Maturity Consideration”), which under the FPA is payable at the Company’s option in cash or shares of common stock valued at the average daily VWAP Price (as defined in the FPA) over the 30 scheduled trading days ending on the FPA Maturity Date. In addition to the Maturity Consideration, on the FPA Maturity Date, the Company is obligated to pay the Purchasers an amount equal to the product of (x) 500,000 and (y) the Redemption Price, totaling $5.1 million (the “Share Consideration”), which under the FPA is payable in cash. However, at the time, the Company may not have sufficient funds or be able to obtain financing from third parties to pay such amounts. The Company also may not have sufficient shares authorized to pay the Maturity Consideration in shares. Breach by the Company of any of these obligations could constitute an event of default under the FPA, which could subject the Company to financial exposure thereunder (including arising from potential indemnification claims by a Purchaser). In addition, future debt or other contractual agreements may contain cross-default or cross-acceleration provisions that could be triggered if we default on our obligations to the Purchasers. Any or all of these consequences could have material adverse impact on us.

In relation to the FPA, the Company's volume-weighted average share price was below $3.00 per share for 50 trading days during the 60 day consecutive trading period ended on July 1, 2024 (satisfying the VWAP Condition). On July 22, 2024, Vellar notified the Company of the satisfaction of the VWAP Condition, purporting to accelerate the FPA Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 common shares) to July 22, 2024. Vellar asserts that it is entitled to: (i) Maturity Consideration of $7.5 million (payable at the Company's option in cash or shares of common stock valued at the average daily VWAP Price (as defined in the FPA) over 30 scheduled trading days ending on the accelerated FPA Maturity Date of July 22, 2024 of $1.91 per share) and (ii) Share Consideration of approximately $2.5 million, payable in cash, each due and payable on July 24, 2024. On July 25, 2024, the Company received a notice from Vellar pursuant to the FPA, stating that the Company is in default of its payment obligations. On July 30, 2024, the Company received a notice of an event of default under the FPA from Vellar that (i) designated such date as the early termination date of the FPA and (ii) purports to result in an early termination cash payment of approximately $4.2 million becoming due to Vellar (equating to the sum of the Maturity Consideration and the Share Consideration minus the VWAP Price (as defined in the FPA) (as of July 29, 2024) of Vellar's portion of the Recycled Shares) (see Part II – Item 1. Legal Proceedings). Refer to *Note 10 - Forward Purchase Agreement*.

On October 4, 2024, ACM delivered to the Company notice of satisfaction of the VAP Condition which accelerated the FPA MAturity Date with respect to ACM's portion of the FPA. On October 15, 2024 and October 21, 2024, the Company paid in cash to ACM $2.5 million in Share Consideration and $7.5 million in Maturity Consideration respectively, and ACM subsequently returned its Recycled Shares to the Company. As a result, the Company's and ACM's obligations under the FPA have been fully satisfied

On May 9, 2024, the Company entered into an At Market Issuance Sales Agreement (the "Sales Agreement") and a Terms Agreement (the "Terms Agreement" and, together with the Sales Agreement, the "ATM Agreements") with B. Riley Securities, Inc. ("B. Riley Securities"), pursuant to which the Company may, from time to time, offer and sell through or to B. Riley Securities, as sales agent or principal, shares of the Company's common stock, having an aggregate offering price of up to $100 million. The shares will be offered through or to B. Riley Securities, acting as agent in connection with agency transactions or as principal in connection with any principal transactions. Pursuant to the Terms Agreement, the Company will have the right, but not the obligation, from time to time at its sole discretion, for as long as the Sales Agreement remains effective, to direct B. Riley Securities on any trading day to act on a principal basis and purchase up to the maximum of the lesser of a) 50% of the prior daily trading volume, or b) approximately $0.2 million per day as long as the closing price on the day prior exceeds $1, and approximately up to $0.9 million per week, and up to $40 million per twelve-month period, subject to any applicable limitations pursuant to the rules and regulations of The Nasdaq Stock Market, LLC (the aggregate amount so purchased by B. Riley Securities under the Terms Agreement, the "Commitment"), which Commitment will be included within the aggregate offering price of up to $100 million of Common Stock sold pursuant to the ATM Agreements; provided, however, that only one principal sale may be requested per day unless otherwise agreed to by B. Riley Securities.

On August 5, 2024, the Company entered into a Convertible Note Purchase Agreement (the "Convertible Note Purchase Agreement") with an accredited investor (the "Investor") pursuant to which the Company agreed to sell and issue to the Investor and other purchasers in a private placement transaction (the "Private Placement") in one or more closings up to an aggregate principal amount of $150 million of convertible notes. As of August 6, 2024, we issued and sold $40.2 million of convertible notes to the Investor pursuant to the Convertible Note Purchase Agreement (the "Convertible Note"). The gross proceeds from the initial closing are approximately $40 million, before deducting estimated offering expenses.

The Convertible Note bears interest at a fixed rate of 8.00% per annum, which interest will be added to the outstanding principal amount of the Convertible Note on the last day of the applicable interest period (beginning on the date of issuance of the Convertible Note and ending on and including the earlier of (x) the anniversary date of such issuance and (y) the maturity date, the "Interest Period"); provided, however, that the Company is permitted to pay all interest payable during an Interest Period in cash upon prior written notice to the Convertible Note holder.

The Convertible Note will mature on August 6, 2029 (the "Maturity Date"), unless earlier redeemed or converted in accordance with their terms. The Convertible Note is subject to mandatory conversion for shares of the Company's common stock, par value $0.0001 per share, upon the completion by the Company of an equity financing prior to the Convertible Note Maturity Date that results in the Company receiving minimum gross proceeds in an amount that is equal to the greater of (i) $40 million and (ii) 50% of the total principal amount under the outstanding convertible notes immediately following the final closing under the Convertible Note Purchase Agreement (a "Qualified Equity Financing") at a conversion price equal to the lower of (i) the lowest per-share selling price per share in the Qualified Equity Financing, less a 10% discount and (ii) the Valuation Cap (as defined below). The Convertible Note is convertible at the option of the holders upon the completion by the Company of an equity financing prior to the Convertible Note Maturity Date that does not meet the definition of a Qualified Equity Financing (a "Non-Qualified Equity Financing") at a conversion price equal to the lower of (i) the lowest per-share selling price in the Non-Qualified Equity Financing and (ii) the Valuation Cap. The Convertible Noteis also convertible at the option of the holders any time prior to the Maturity Date at a conversion price equal to the Valuation Cap. The "Valuation Cap" $1.25 per share), and (ii) with respect to a Convertible Note issued at any closing subsequent to the initial closing under the Convertible Note Purchase Agreement, the price per share equal to the *greater* of (a) $1.56 and (b) the closing price per share of the Company's common stock on the date prior to such closing. The Valuation Cap is subject to adjustment based on the Company's holdings in LanzaJet, and the conversion price in all cases is subject to adjustment for stock splits, reclassifications, redesignations, subdivisions, recapitalizations, and dividends. As of the date of this filing no Qualified Equity Financing nor Non-Qualifying Financing events have occurred.

The Convertible Note may not be prepaid or redeemed by the Company, either in whole or in part, without the consent of the holder , provided that the Company may redeem and the Convertible Note without such consent (i) until August 6, 2025, in an amount equal to one and one half times the redeemed principal amount thereof; (ii) between August 7, 2025 and August 6, 2027, in an amount equal to two times the redeemed principal amount; and (iii) after August 6, 2027, in an amount equal to three times the redeemed principal amount; in all such cases, any and all accrued and unpaid interest to have been repaid in connection with the redemption.

We continue to seek additional financing under the Convertible Note Purchase Agreement from certain institutional accredited investors with whom we have a preexisting substantive relationship. We currently have no commitments from any such investors to participate in the convertible note financing or any other financing. There can be no assurance that we will be successful in our effort to secure additional financing in amounts and on terms acceptable to us.

The accompanying unaudited financial statements have been prepared assuming we will continue as a going concern. However, near-term, we expect to continue to generate operating losses and to have net cash outflows from operating activities.

We believe our existing cash and cash equivalents will be sufficient to fund our operations for the next 12 months from the date of this Quarterly Report. However, our liquidity assumptions may prove to be incorrect, and we could utilize our available financial resources sooner than we currently expect, including within the next 12 months. Our future capital requirements and the adequacy of available funds will depend on many factors, including those set forth in Part I, Item 1A of our Annual Report on Form 10-K under "Risk Factors" and in Part II, Item 1A of this Quarterly Report. In addition, we from time to time, evaluate financing alternatives to enhance the Company's liquidity position, including the sale of securities, the incurrence of debt or other financing alternatives.

If we determine that we require additional financing to meet our operating requirements, we may be unable to secure such financing on acceptable terms, or at all. If we raise additional funds by issuing equity and/or convertible debt securities, dilution to our existing stockholders will result. If we raise additional financing and incur indebtedness, we would be subject to increased fixed payment obligations and could also be subject to certain restrictive covenants, such as limitations on our ability to incur additional debt, limitations on our ability to acquire, sell or license intellectual property rights and other operating restrictions that could adversely impact our ability to conduct our business. If we are unable to obtain additional funds, we will have to reduce our operating costs, which will cause a delay or reduction in our technology development and commercialization programs.

In the normal course of our business, we also enter into purchase commitments or other transactions in which we make representations and warranties that relate to the performance of our goods and services. We do not expect material losses related to these transactions.

Cash Flows

For the quarters ended September 30, 2024 and 2023

The following table provides a summary of our cash flows for the nine months ended September 30, 2024 and September 30, 2023:

	Nine Months Ended September 30,		Change	
(In thousands, except for percentages)	**2024**	**2023**	**2024 vs. 2023**	
Net cash provided by (used in):				
Operating activities	$ (69,384)	$ (81,565)	$ 12,181	(15)%
Investing activities	14,130	(56,495)	70,625	(125)%
Financing activities	40,224	147,272	(107,048)	(73)%
Effects of currency translation	(287)	(852)	565	66 %
Net (decrease) increase in cash, cash equivalents, and restricted cash	$ (15,317)	$ 8,360		

Cash Flows Used in Operating Activities

Cash flows used in operating activities decreased $12.2 million or 15% in the nine months ended September 30, 2024 compared to the nine months ended September 30, 2023. The decrease is primarily attributable to the lower net loss, net of non-cash items in the nine months ended September 30, 2024 compared to the nine months ended September 30, 2023. Additionally, the Company had cash outflows of $4.1 million related to costs incurred for the Business Combination that were classified as cash flows from operating activities during the nine months ended September 30, 2023, which did not recur in the current period.

Cash Flows Provided by Investing Activities

In the nine months ended September 30, 2024, net cash provided by investing activities was $14.1 million, compared to net cash used by investing activities of $(56.5) million in the nine months ended September 30, 2023. The change is primarily driven by the purchase of debt securities of $(43.9) million in the nine months ended September 30, 2023 net of proceeds from matured debt securities, which did not recur in the current period. The Company received proceeds from the maturity of a portion of the debt securities of $44.8 million in the nine months ended September 30, 2024.

Cash Flows from Financing Activities

In the nine months ended September 30, 2024, net cash from financing activities was $40.2 million, compared to net cash provided by financing activities of $147.3 million in the nine months ended September 30, 2023. The cash inflow in the prior period was driven by $213.4 million in proceeds from the Business Combination and PIPE financing and proceeds of $1.6 million from the exercise of options to acquire shares of common stock of the Company. This was partially offset by the FPA prepayment amount of $60.1 million and by the repurchase of equity instruments of $7.7 million.

Off-Balance Sheet Arrangements

As of September 30, 2024 and December 31, 2023, we did not engage in any off-balance sheet arrangements, including the use of structured finance, special purpose entities or variable interest entities.

Critical Accounting Policies and Management Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our condensed consolidated financial statements that have been prepared in accordance with US GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. We consider an accounting estimate to be critical to the condensed consolidated financial statements if the estimate is complex in nature or requires a high degree of judgment and if actual results may differ from these estimates with any such differences being potentially material. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances. We evaluate our estimates and assumptions on an ongoing basis. A discussion of our critical accounting policies and estimates may be found in the Company's Annual Report on Form 10-K, which was filed with the SEC on February 29, 2024 in "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "Critical Accounting Policies and Management Estimates". As of September 30, 2024, we added one critical accounting policies and estimates, as follow:

Convertible Note

We elected the fair value option to account for the Convertible Note . At issuance, the fair value approximates the principal amount of the Convertible Note. As of September 30, 2024, the estimate of the fair value was determined using a binomial lattice model which generates a distribution of stock prices over the term of the note, calculates the associated payoff for the note, and discounts the probability-weighted values from the lattice back to the valuation date. The fair value was estimated by using assumptions that market participants would use in pricing a convertible debt instrument, including market interest rates, credit rating, yield curves, and volatilities.

The fair value measurement of the debt was determined using Level 3 inputs and assumptions unobservable in the market. Changes in the fair value of debt that is accounted for at fair value, inclusive of related accrued interest expense, are presented as gains or losses in the accompanying unaudited condensed consolidated statements of operations and comprehensive income (loss) under change in fair value of debt. The portion of total changes in fair value of debt attributable to changes in instrument-specific credit risk are determined through specific measurement of periodic changes in the discount rate assumption exclusive of base market changes and are presented as a component of comprehensive income (loss) in the accompanying unaudited condensed consolidated statements of operations and comprehensive income (loss).

The assumptions underlying these valuations represented our best estimate, which involved inherent uncertainties and the application of judgment. If we had used different assumptions or estimates, the estimated fair value of the instruments described above could have been materially different.

Non-GAAP Financial Measures

To supplement our financial statements presented in accordance with US GAAP and to provide investors with additional information regarding our financial results, we have presented adjusted EBITDA, a non-GAAP financial measure. Adjusted EBITDA is not based on any standardized methodology prescribed by US GAAP and is not necessarily comparable to similarly titled measures presented by other companies.

We define adjusted EBITDA as our net loss, excluding the impact of depreciation, interest income, net, stock-based compensation, change in fair value of warrant liabilities, change in fair value of SAFE liabilities, change in fair value of the FPA Put Option liability and Fixed Maturity Consideration, change in fair value of the Convertible Note and associated transaction costs, transaction costs on issuance of FPA, loss from equity method investees, net and other one-time costs related to the Business Combination and securities registration on Form S-4, our registration statement on Form S-1, and non-recurring regulatory matters. We monitor and have presented in this Quarterly Report adjusted EBITDA because it is a key measure used by our management and the Board to understand and evaluate our operating performance, to establish budgets, and to develop operational goals for managing our business. We believe adjusted EBITDA helps identify underlying trends in our business that could otherwise be masked by the effect of certain expenses that we include in net loss. Accordingly, we believe adjusted EBITDA provides useful information to investors, analysts, and others in understanding and evaluating our operating results and enhancing the overall understanding of our past performance and future prospects.

Adjusted EBITDA is not prepared in accordance with US GAAP and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with US GAAP. There are a number of limitations related to the use of adjusted EBITDA rather than net loss, which is the most directly comparable financial measure calculated and presented in accordance with US GAAP. For example, adjusted EBITDA: (i) excludes stock-based compensation expense because it is a significant non-cash expense that is not directly related to our operating performance; (ii) excludes depreciation expense and, although this is a non-cash expense, the assets being depreciated and amortized may have to be replaced in the future; (iii) excludes gain or losses on equity method investee; and (iv) excludes certain income or expense items that do not provide a comparable measure of our business performance. In addition, the expenses and other items that we exclude in our calculations of adjusted EBITDA may differ from the expenses and other items, if any, that other companies may exclude from adjusted EBITDA when they report their operating results. In addition, other companies may use other measures to evaluate their performance, all of which could reduce the usefulness of our non-GAAP financial measures as tools for comparison.

The following table reconciles adjusted EBITDA to net loss, the most directly comparable financial measure calculated and presented in accordance with US GAAP.

Reconciliation of Net Loss to Adjusted EBITDA

	Three Months Ended September 30,		Nine Months Ended September 30,	
(In thousands)	**2024**	**2023**	**2024**	**2023**
Net Loss	$ (57,431)	$ (25,326)	$ (110,738)	$ (115,424)
Depreciation	1,301	1,376	4,289	3,981
Interest income, net	(791)	(1,249)	(2,452)	(3,164)
Stock-based compensation expense and change in fair value of SAFE and warrant liabilities [(1)]	3,221	(6,368)	(10,870)	(2,316)
Change in fair value of the FPA Put Option and Fixed Maturity Consideration liabilities (net of interest accretion reversal)	(488)	11,632	23,283	44,661
Change in fair value of convertible note and related transaction costs	21,572	—	21,572	—
Transaction costs on issuance of FPA	—	—	—	451
Loss from equity method investees, net	5,535	463	7,935	941
One-time costs related to the Business Combination, initial securities registration and non-recurring regulatory matters[(2)]	—	410	—	4,472
Adjusted EBITDA	**$ (27,081)**	**$ (19,062)**	**$ (66,981)**	**$ (66,398)**

(1) Stock-based compensation expense represents expense related to equity compensation plans.

(2) Represents costs incurred related to the Business Combination that do not meet the direct and incremental criteria per SEC Staff Accounting Bulletin Topic 5.A to be charged against the gross proceeds of the transaction, but are not expected to recur in the future, as well as costs incurred subsequent to deal close related to our securities registration on Form S-4 and our registration statement on Form S-1. Regulatory matters includes fees related to non-recurring items during the year ended December 31, 2023.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to a variety of market and other risks, including the effects of changes in interest rates, inflation and foreign currency translation and transaction risks, as well as risks to the availability of funding sources, hazard events and specific asset risks. Our market risk exposure is expected to be limited to risks that arise in the normal course of business, as we do not engage in speculative, non-operating transactions, nor do we use financial instruments or derivative instruments for trading purposes.

Interest Rate Fluctuation Risk

Our primary exposure to market risk is interest rate sensitivity, which is affected by changes in the general level of U.S. interest rates, particularly because of our cash equivalents and debt security investments. Our investments are made through our commercial and investment banks and, by policy, we limit the amount of risk by investing primarily in money market funds, United States Treasury obligations, and high quality corporate bonds. Additionally, we primarily invest in short-term securities. Because of the short-term nature of the majority of our financial instruments in our investment portfolio, an immediate change in market interest rates of 100 basis points would not have a material impact on the fair market value of our cash and cash equivalents or on our financial position or results of operations.

Foreign Currency Fluctuation Risk

We are subject to foreign currency exchange risk from the translation of the financial statements of our foreign subsidiaries, whose financial condition and results of operations are reported in their local currencies and then translated into U.S. dollars at the applicable currency exchange rate for inclusion in our consolidated financial statements. Foreign currency translation adjustments were $0.2 million and $1.0 million for the nine months ended September 30, 2024 and 2023, respectively. Additionally, we have contracted with and may continue to contract with foreign vendors.

Commodity Pricing Risk

Our CarbonSmart products differ from other bio-ethanol products (and related derivative products) because they are made from a unique feedstock (recycled carbon emissions) which differs from first-generation biofuels which are generally made from food sources. As a result, there is not an active trading market for our CarbonSmart fuels, and we are not directly impacted by changes in commodity prices. Additionally, we do not engage in hedging or other derivative transactions related to commodity prices.

Demand for our CarbonSmart products is indirectly impacted by commodity prices for fossil fuel and first generation bio-fuel prices. As prices drop for fossil and first-generation bio fuels, demand for our more-expensive recycled CarbonSmart products may decrease. Demand for our CarbonSmart products is also generally increased by new or additional environmental regulations, and decreased by loosened or reduced regulation.

Credit Risk

We are subject to credit risk due to concentration of our receivables with a limited number of significant customers. If a customer defaults or if any of our contracts are cancelled by the customer in accordance with their terms, and we are unable to renew or replace these contracts, our gross margin and cash flows may be adversely affected.

Equity Price Risk

We have in the past, and may in the future, seek additional funding by sale of common stock and other equity securities. The price of our common stock has been volatile in the past and may also be volatile in the future. As a result, there is a risk that we may not be able to sell our common stock or other equity securities at an acceptable price or at all, should the need for new equity funding arise.

Inflation Fluctuation Risk

Inflation generally affects us and our customers by increasing the cost of labor, laboratory supplies, consumables and capital expenditure required to deploy our technology, which may have a material effect on our business.

ITEM 4. CONTROLS AND PROCEDURES

Limitations on Effectiveness of Controls and Procedures

In designing and evaluating our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. We do not expect that our disclosure controls and procedures will prevent all errors and all instances of fraud. Disclosure controls and procedures, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the disclosure controls and procedures are met. Further, the design of disclosure controls and procedures must reflect the fact that there are resource constraints, and the benefits must be considered relative to their costs. Because of the inherent limitations in all disclosure controls and procedures, no evaluation of disclosure controls and procedures can provide absolute assurance that we have detected all our control deficiencies and instances of fraud, if any. The design of disclosure controls and procedures also is based partly on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions.

Evaluation of Disclosure Controls and Procedures

Our disclosure controls and procedures are designed to ensure that information required to be disclosed 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 rules and forms of the SEC, 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 disclosure. Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a–15(e) and 15d-15(e)).

As a result of this evaluation, our CEO and CFO concluded that the material weaknesses relating to: (i) the accounting for complex transactions and estimates requiring significant judgment and (ii) revenue recognition, which were previously identified in Item 9A. "Controls and Procedures" of our Annual Report on Form 10-K for the year ended December 31, 2023, were still present as of September 30, 2024 (the "Evaluation Date"). Based on the material weaknesses, and the evaluation of our disclosure controls and procedures, our CEO and CFO concluded that our disclosure controls and procedures were not effective as of the Evaluation Date.

Notwithstanding the identified material weaknesses, management believes that the condensed consolidated financial statements included in this Form 10-Q fairly present in all material respects our financial condition, results of operations, and cash flows as of September 30, 2024.

Remediation Efforts to Address Material Weaknesses

Management continues to take steps to improve our internal control processes and will continue to review, optimize, enhance and test our controls and procedures as our control environment matures over time. These measures include enhancing the design and implementation of our internal controls over financial reporting to comply with the COSO 2013 Internal Control-Integrated Framework, with particular focus on our material weaknesses. We have enhanced the design of our controls in the accounting for complex transactions and estimates requiring significant judgment and revenue recognition. The material weaknesses will not be considered remediated until the applicable controls operate for a sufficient period of time and management has concluded, through testing, that these controls are operating effectively.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) that occurred during the quarter ended September 30, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. We note that our CEO and CFO concluded that the material weaknesses previously identified in Item 9A. "Controls and Procedures" of our Annual Report on Form 10-K for the year ended December 31, 2023 were still present as of the Evaluation Date.

PART II

ITEM 1. LEGAL PROCEEDINGS

The Company may be involved in legal proceedings and exposed to potential claims in the normal course of business, including as described below. Although we cannot predict the ultimate outcome of any legal matter with certainty, we do not believe the outcome of any of our pending legal proceedings will have a material adverse impact on our consolidated financial position, results of operations or cash flows.

In relation to the FPA, the Company's volume-weighted average share price was below $3.00 per share for 50 trading days during the 60 day consecutive trading period ended on July 1, 2024 (satisfying the VWAP Condition). On July 22, 2024, Vellar (one of the Purchasers) notified the Company of satisfaction of the VAP Condition, purporting to accelerate the Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 common shares) to July 22, 2024. Vellar asserts that it is entitled to: (i) Maturity Consideration of $7,500,000 (payable at the Company's option in cash or shares of common stock valued at the average daily VWAP Price (as defined in the FPA) over 30 scheduled trading days ending on the accelerated FPA Maturity Date of July 22, 2024 of $1.91 per share) and (ii) Share Consideration of $2,539,350, payable in cash, each due and payable on July 24, 2024. On July 25, 2024, the Company received a notice from Vellar pursuant to the FPA, stating that the Company is in default of its payment obligations. On July 30, 2024, the Company received a notice of an event of default under the FPA from Vellar that (i) designated such date as the early termination date of the FPA and (ii) purports to result in an early termination cash payment of $4,163,701 becoming due to Vellar (equating to the sum of the Maturity Consideration and the Share Consideration minus the VWAP Price (as defined in the FPA) (as of July 29, 2024) of Vellar's portion of the Recycled Shares).

On July 24, 2024, LanzaTech filed suit against Vellar in the Supreme Court of the State of New York, Commercial Division, alleging breach of the FPA, breach of the implied covenant of good faith and fair dealing, and unjust enrichment. The claims are primarily in connection with Vellar's sale of Recycled Shares, which LanzaTech alleges are in breach of the FPA's requirement that Recycled Shares be held in a bankruptcy remote special purpose vehicle for the benefit of the Company unless the sale is noticed to the Company as part of an optional early termination, which Vellar has not done. In the event of a sale of Recycled Shares subject to an optional early termination, the Company is entitled to receive $10.1574 for each share sold. LanzaTech believes that Vellar's notice regarding the VWAP Condition and consequently, its notice of an event of default, is not valid and, accordingly, that no payments are owed to Vellar in connection with the purported acceleration of the FPA Maturity Date or early termination of the FPA. The Company intends to vigorously pursue its claims against Vellar.

On October 23, 2024, Vellar filed suit against the Company, alleging breach of the FPA, and seeking $4,163,701 plus interest. The Company intends to vigorously defend itself against the claim. On October 24, 2024, Vellar sought advancement of certain expenses from the Company in connection with this litigation. The Company denied the request on October 28, 2024.

ITEM 1A. RISK FACTORS

Our risk factors are disclosed in Part I, Item 1A of our Annual Report on Form 10-K. There have been no material changes during the nine months ended September 30, 2024 from or updates to the risk factors discussed in Part I, Item 1A. Risk Factors, of our Annual Report on Form 10-K, except as follows:

We are engaged in litigation related to the FPA.

On July 24, 2024, LanzaTech filed suit against Vellar in the Supreme Court of the State of New York, Commercial Division, alleging breach of the FPA, breach of the implied covenant of good faith and fair dealing, and unjust enrichment. Such litigation may be costly, distracting to management and could harm our reputation and the value of our Company. We cannot guarantee that we will be able to resolve the litigation on terms favorable to us, and such litigation, whether successful or not, could have a material adverse effect on our business, results of operations and financial condition.

ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

Except as previously reported by the Company on its Current Reports on Form 8-K, we did not sell any securities during the period covered by this Form 10-Q that were not registered under the Securities Act.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

None.

ITEM 5. OTHER INFORMATION

Securities Trading Plans of Directors and Executive Officers

During the three months ended September 30, 2024, none of our directors or officers adopted or terminated any contract, instruction or written plan for the purchase or sale of our securities that was intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) or any "non-Rule 10b5-1 trading arrangement" (as defined in Item 408(c) of Regulation S-K).

ITEM 6. EXHIBITS

Exhibit	Description
3.1**	Second Amended and Restated Certificate of Incorporation of LanzaTech Global, Inc.,
3.2**	Amended and Restated Bylaws of LanzaTech Global, Inc. (incorporated by reference to Exhibit 3.2 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023).
4.1**	Form of Convertible Promissory Note (incorporated by reference to Exhibit 4.1 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on August 8, 2024).
10.1**	Form of Convertible Note Purchase Agreement, dated August 5, 2024 (incorporated by reference to Exhibit 10.1 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on August 8, 2024).
10.2*	Form of Registration Rights Agreement, dated August 5, 2024 (incorporated by reference to Exhibit 10.2 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on August 8, 2024).
31.1*	Certification of Principal Executive Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
31.2*	Certification of Principal Financial Officer pursuant to Rules 13a-14(a) and 15d-14(a) promulgated under the Securities Exchange Act of 1934, as amended.
32.1*+	Certification of Principal Executive Officers and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101	The following financial information from LanzaTech Global Inc.'s Quarterly Report on Form 10-Q for the quarter ended September 30, 2024 formatted in Inline XBRL (Extensible Business Reporting Language) includes: (i) the Condensed Consolidated Balance Sheets, (ii) the Condensed Consolidated Statements of Operations and Comprehensive Loss, (iii) the Condensed Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Shareholders' Equity, (iv) the Condensed Consolidated Statements of Cash Flows, and (v) Notes to the Condensed Consolidated Financial Statements.
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Filed herewith.

** Previously filed.

+ Furnished herewith and not deemed to be "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and shall not be deemed to be incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1934, as amended, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Skokie, State of Illinois, on November 8, 2024.

LANZATECH GLOBAL, INC.
(Registrant)

Name	Position	Date
/s/ Jennifer Holmgren, Ph.D. Jennifer Holmgren, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	November 8, 2024
/s/ Geoff Trukenbrod Geoff Trukenbrod	Chief Financial Officer (Principal Financial Officer)	November 8, 2024

Exhibit 31.1

CERTIFICATION PURSUANT TO

RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,

AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Jennifer Holmgren, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of LanzaTech Global, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) 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(s) 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 8, 2024

By: /s/ Jennifer Holmgren

Jennifer Holmgren
Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO

RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,

AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Geoff Trukenbrod, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of LanzaTech Global, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) 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(s) 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 8, 2024

By: /s/ Geoff Trukenbrod

Geoff Trukenbrod
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended (the “Exchange Act”) and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. § 1350), Jennifer Holmgren, Chief Executive Officer of LanzaTech Global, Inc. (the “Company”), and Geoff Trukenbrod, Chief Financial Officer of the Company, each hereby certifies that, to the best of their knowledge:

1. The Company’s Quarterly Report on Form 10-Q for the quarterly period ended September 30, 2024, to which this Certification is attached as Exhibit 32.1 (the “Report”), fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act; and

2. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 8, 2024	By:	/s/ Jennifer Holmgren
		Jennifer Holmgren Chief Executive Officer (Principal Executive Officer)
	By:	/s/ Geoff Trukenbrod
		Geoff Trukenbrod Chief Financial Officer (Principal Financial Officer)

This certification accompanies the Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of LanzaTech Global, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the Form 10-Q), irrespective of any general incorporation language contained in such filing.