

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2024
OR

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

For the transition period from _____ to _____
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 Illinois 60077

(Address of Principal Executive Offices, Including Zip Code)

(846) 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, \$0.0001 par value	LNZA	The Nasdaq Stock Market LLC
Warrants to purchase common stock	LNZAW	The Nasdaq Stock Market LLC

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

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

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ No ☐

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

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

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

The aggregate market value of the voting stock held by non-affiliates of the registrant was approximately \$204,694,359 based on the closing price of the registrant's Common Stock on June 30, 2024. The number of shares outstanding of the registrant's Common Stock as of April 10, 2025 was 197,900,285.

Documents incorporated by reference: Part III incorporates information by reference to the registrant's definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days after the close of the fiscal year ended December 31, 2024.

LANZATECH GLOBAL, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2024

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K (the “Form 10-K” or “Annual Report”) contains “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), which are subject to the “safe harbor” created by those sections. 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 Annual 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.

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

- our ability to continue operations as a going concern;
- our ability to achieve profitability;
- our ability to raise substantial financing to fund our operations and/or execute on our other strategic options; whether the non-binding proposal received on April 3, 2025 from Carbon Direct Capital Management LLC (“Carbon Direct Capital”) offering to acquire all of the outstanding shares of our common stock for \$0.02 per share (the “Take-Private Proposal”), will result in a definitive transaction; our anticipated growth rate and market opportunities;
- our ability to maintain the listing of our securities on the Nasdaq Stock Market LLC (“Nasdaq”);
- our ability to attract, retain and motivate qualified personnel;
- the potential liquidity and trading of our securities;
- our future financial performance and capital requirements; 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 manage our growth effectively;
- our ability to increase our revenue from engineering services, sales of equipment packages and sales of CarbonSmart products and to improve our operating results; 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 Annual Report.

These forward-looking statements are based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in Part I, “Item 1A-Risk Factors” and elsewhere in this Annual Report. Moreover, we operate in a competitive industry, and new risks

emerge from time to time. It is not possible for management 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 Annual Report may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this Annual Report.

The forward-looking statements included in this Annual Report are made only as of the date hereof. You should not rely upon forward-looking statements as predictions of future events. Although we believe that the expectations reflected in our forward-looking statements are reasonable, we cannot guarantee that the future results, levels of activity, performance or events and circumstances reflected in the forward-looking statements will be achieved or occur. LanzaTech Global, Inc. (collectively referred to herein as “the Company”, “LanzaTech”, “we”, “us”, “our”) does not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this Annual Report to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this Annual Report and the documents that have been filed as exhibits to the Annual Report with the understanding that the actual future results, levels of activity, performance, events and circumstances of LanzaTech may be materially different from what is expected.

PART I

Item 1. Business

Overview

Founded in 2005 in New Zealand and now headquartered in Skokie, Illinois, we are a carbon management company transforming waste carbon into sustainable fuels, fabrics, packaging, and nutrition. Our goal is to advance a circular economy where carbon is reused rather than wasted, reducing reliance on virgin fossil resources and supporting supply chain resilience.

Gas fermentation, a core part of our offering, enhances waste carbon value while minimizing environmental impact by using existing industrial land and recycled water. Our biological process, akin to brewing, uses microbes to convert waste carbon into ethanol and derivatives. Unlike conventional catalytic methods, our system adapts to variable feedstock compositions, making it highly flexible and efficient.

Our scalable technology enables industrial, municipal, and agricultural emitters to monetize their carbon dioxide (“CO₂”) emissions and produce sustainable products. Using our process technology, our partners launched the world’s first commercial carbon refining plant in China in 2018, followed by additional facilities in China, India, and Belgium. With a global project pipeline, our platform converts diverse waste feedstocks into sustainable fuels and chemicals, meeting the rising demand for environmentally conscious products.

Low carbon ethanol is now being produced using our technology at commercial scale at six locations globally, with production of over 75 million gallons of fuel grade ethanol, resulting in the mitigation of over 500,000 tons of CO₂ and keeping the equivalent of an estimated 35 million gallons of oil in the ground since May 2018. Used microorganisms from those commercial facilities are protein-rich and are sold locally as animal feed in China.

Ethanol-derived products include sustainable aviation fuel (“SAF”), sustainable diesel, ethylene, polyethylene, polyethylene terephthalate (“PET”), surfactants, and glycols. Sustainable diesel blends seamlessly with conventional fuels, cutting emissions and improving air quality. Ethylene supports polyethylene production for films and packaging, while ethylene glycol aids surfactant production for detergents. Ethanol can also be converted to monoethylene glycol (“MEG”), a key PET precursor for packaging and textiles.

In 2020, we launched LanzaJet™, a SAF company, in collaboration with our investor partners. As of December 31, 2024, we hold a 36.33% ownership stake in the business. In January 2024, LanzaJet opened the world’s first ethanol-to-SAF facility in Soperton, Georgia, with production expected in 2025. The LanzaJet Alcohol-to-Jet (“ATJ”) process, developed with the Pacific Northwest National Lab and the U.S. Department of Energy, first converted ethanol produced from steel mill emissions into SAF for Virgin Atlantic (2018) and All Nippon Airways (2019) flights. In June 2024, we extended our collaboration and launched a joint offering with LanzaJet called CirculAir™ which provides an end-to-end commercial solution utilizing LanzaTech’s Gas Fermentation platform in conjunction with LanzaJet’s ATJ platform to produce SAF and renewable diesel from a wide range of waste feedstocks, including industrial off gases, carbon dioxide and hydrogen, as well as gasified solids, such as municipal solid waste and residues from agriculture and forestry.

We drive revenue through licensing and co-development. Our licensing model is designed to enable the generation of stable, recurring revenues from royalties, microbe supply, and software support while partners own and operate fermentation plants. Through co-development, we co-own select projects—typically as a minority investor—while integrating new feedstocks and products. Across both models, we license technology, sell supplies, and provide research and engineering services to advance fermentation and synthetic biology.

Market Opportunity

Overview

Greenhouse gas (“GHG”) emissions are widespread globally, with Asia as the largest emitter. China alone accounts for over 30% of global fossil fuel CO₂ emissions. The U.S. emits about six billion metric tons annually, while Europe emits nearly five billion. Human activities drive climate change, prompting urgent action.

The 2016 Paris Agreement set a goal to limit global temperature rise to 2°C, requiring significant investments. The EU’s Green Deal aims for carbon neutrality by 2050, while the U.S. has allocated substantial funding for clean energy through the Infrastructure Investment and Jobs Act and the Inflation Reduction Act.

Governments, companies, and investors are setting emissions reduction targets. The RE100 initiative, led by The Climate Group in partnership with CDP, is comprised of over 400 companies pledging 100% renewable electricity by 2050. Many airlines, including U.S. carriers, are aiming to cut emissions by 50% by 2050, with major U.S. carriers targeting net-zero emissions and having pledged to make two billion gallons of SAF by 2030.

Carbon capture and transformation (“CCT”) and sequestration (“CCS”) are key to reducing emissions. CCT transforms captured carbon into products, while CCS stores it underground, helping industries meet climate goals. We believe LanzaTech can provide a profitable pathway to abating emissions by generating revenue from products made from recycled carbon instead of sequestering the carbon underground via sequestration technology.

We recycle carbon to produce ethanol for potential SAF production, as well as MEG and PET, with 2023 market values of \$24.8 billion for MEG and \$41 billion for PET packaging. Our portfolio includes existing recycled carbon and soon-to-be-commercialized CarbonSmart products, which we believe will expand into more chemical markets as additional facilities begin operations. The CarbonSmart concept envisions transforming carbon waste into everyday products, with approximately two tons of CO₂ removed per ton of CarbonSmart product produced.

Key Competitive Advantages

We believe the following combination of capabilities and strengths distinguishes us from our potential competitors.

Proven, Differentiated, Adaptable Proprietary Technology Platform. We are a leader in gas fermentation with a scalable, cost-effective carbon recycling technology. Our proprietary system produces multiple chemicals from diverse feedstocks using a single process, ensuring stability despite fluctuating gas compositions—unlike thermocatalytic methods. High-value chemical intermediates enable the production of materials like acrylics, plastics, and synthetic rubber, supporting a circular carbon economy by repurposing carbon instead of emitting it.

Low Carbon, Enabling Technology. Our technology integrates across the supply chain, allowing industrial emitters to monetize waste carbon. Industrial emitters can implement LanzaTech’s carbon capture solution onto their existing facility and derive revenue from used carbon. As an example, the first commercial facility in China to utilize our technology platform has sold over 65.9 million gallons of ethanol into the market, displacing fossil gasoline for road transport use, and avoiding the equivalent of over 240,000 tons of CO₂ emissions at source.

Platform Validated Through Partnerships with Industry Leaders. Our gas fermentation technology operates at multiple commercial sites, including steel and refinery off-gas plants in China, India, and Belgium. Collaborations with SEKISUI (Japan) and others showcase our ability to convert diverse waste streams into valuable products. With over 100,000 hours of pilot and demonstration-scale operations, our partnerships with companies like Mitsui, ArcelorMittal, BASF, and IndianOil reinforce our market leadership.

Strong Intellectual Property Position. As of December 31, 2024, we owned or had licensed rights to 1,193 granted patents and 515 pending patent applications across 130 patent families in the United States, Europe, Asia

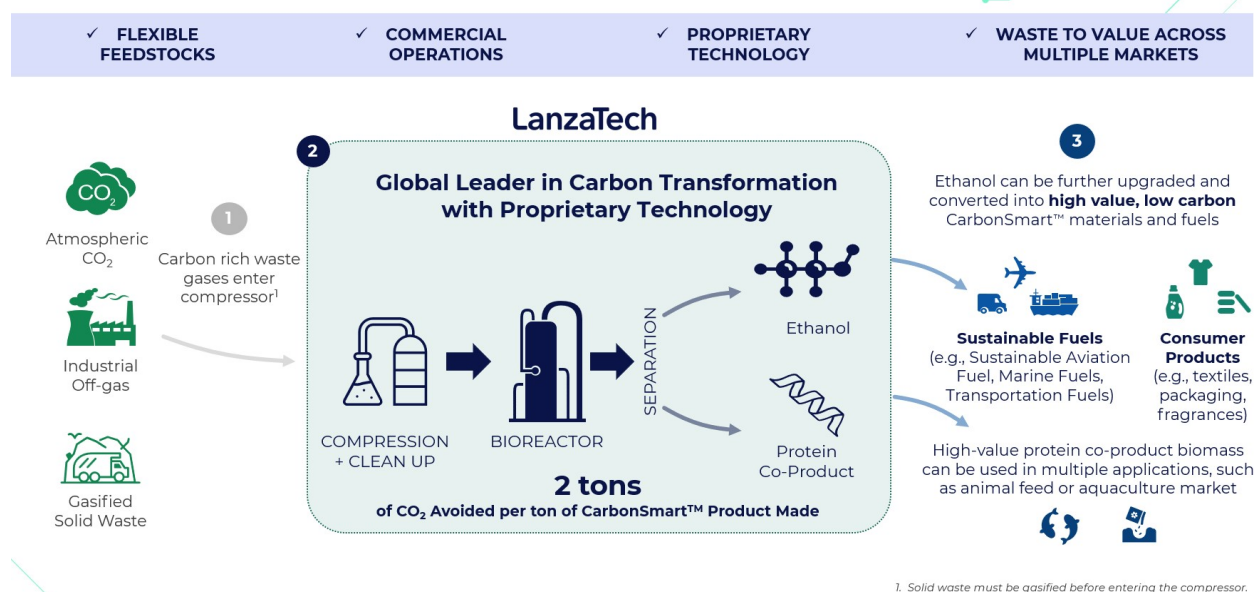
and additional jurisdictions, in addition to our trade secrets. Our intellectual property portfolio contains patent families covering the full spectrum of gas fermentation (from feedstock processing to product recovery), protecting our innovations and market position.

Our Technology Platform

Overview

We have developed and deployed a flexible proprietary technology platform that integrates gas fermentation with upstream gasification and downstream product processing. Our platform utilizes feedstocks containing CO₂, H₂, and CO, including industrial emissions, gasified municipal and agricultural waste, and reformed biogas. Proven at multiple scales, including four commercial facilities in China, our technology enables partners to use engineered biocatalysts to produce ethanol and nutritional protein products.

COMMERCIAL CARBON MANAGEMENT: CO₂ to VALUE



Step 1: The process begins by receiving off-gas or waste gas streams comprising gases that contain various mixtures of CO, CO₂ and H₂, such as from steelmaking emissions or gasified waste.

Step 2: These gases are compressed, conditioned, and transferred into fermentation bioreactors containing LanzaTech's proprietary biocatalysts (microorganism) and a liquid media. The biocatalysts ferment the gases and, as part of their natural biology, they produce ethanol and other chemicals as a result of this fermentation. This is a continuous process that can run without shutting down for extended periods.

Step 3: The output of the fermentation (i.e., ethanol and protein) can be further transformed into high value materials, food or fuel.

LanzaTech's Biocatalyst

Clostridium autoethanogenum is an Acetogen, a chemolithoautotrophic microorganism that uses certain gases for both carbon and energy. Acetogens naturally produce acetate, and a select subset of Acetogens, including *C. autoethanogenum*, natively synthesize ethanol. Acetogens are ubiquitous in anaerobic environments, such as soil,

animal and human guts, sediments, the deep sea, and hot springs. For biotechnological applications, acetogenic clostridia are among the fastest growing acetogens and have been used industrially for more than 100 years.

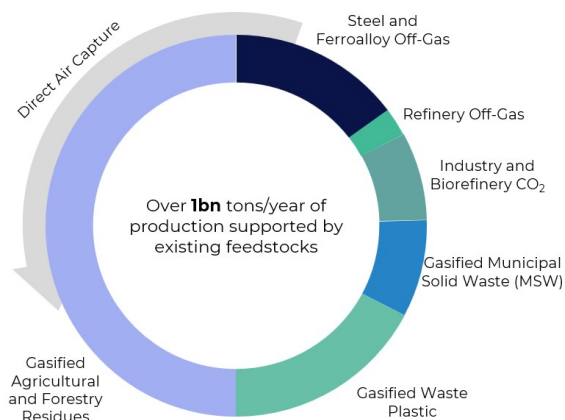
Our technology leverages gas-consuming biocatalysts and the highly efficient Wood-Ljungdahl Pathway (“WLP”) for carbon fixation. This pathway enables our biocatalyst to convert CO₂ and CO into valuable products using H₂ and CO as energy sources. The WLP’s energy efficiency and flexibility allow the LanzaTech process to utilize diverse waste gas streams for sustainable, large-scale product manufacturing.

Feedstock Diversity for Resilience

The LanzaTech gas fermentation platform can utilize feedstocks ranging from CO to CO₂-rich waste streams, including industrial and refinery off-gas, reformed biogas, gasified biomass and Municipal Solid Waste (“MSW”), and CO₂.

ABUNDANCE OF UPSTREAM MARKET CUSTOMERS ENABLES SUPPLY RESILIENCE

Commercial pipeline already utilizes a variety of waste carbon feedstocks...



...freeing LanzaTech from the challenges of supply restraints

Feedstock Attributes		LanzaTech	Other Catalytic Conversion Processes
	Low Cost	✓	✗
	Global Availability with Regional Abundance	✓	✗
	Low Carbon Intensity	✓	✗
	Non-Competitive with Food Production	✓	✗
	Point-Sourced	✓	✗
	Fossil Carbon Left in the Ground	✓	✗

CO serves as both a carbon and energy source for proprietary microbes, while CO₂ requires an additional energy source, such as H₂, for conversion. In CO-rich streams, microbes can generate H₂ from water via a biological water-gas shift reaction, making diverse CO waste streams ideal for gas fermentation. Waste carbon feedstocks are globally abundant, low-cost, low-carbon, and non-competitive with food production. Utilizing the full potential of these feedstocks could yield up to 6.5 billion metric tons of gas fermentation products annually, primarily ethanol.

LanzaTech’s gas fermentation process is uniquely tolerant to variable waste gas compositions, enabling diverse feedstocks and products. Its proprietary gas treatment system removes multiple classes of fermentation inhibitors from various feedstocks, including gasified biomass and industrial off-gases, reducing costs and increasing flexibility for sustainable production.

Biorefining Feedstock

The following feedstocks could be used with our platform technology:

Industrial Emissions

Steel, ferroalloy, or refinery off-gases are point-sourced. CO₂-rich off-gases, which are produced by the cement and sugar ethanol industries, can also be used to feed gas fermentation alongside a hydrogen source.

- *Steel*: Energy-intensive manufacturing processes, such as steel production, inevitably result in gaseous emissions, which cannot be stored and which are emitted by the steel maker. As an environmental liability rich in CO, these emissions are an ideal feedstock for our process. We have been working with these readily available, abundant gases since 2008.
- *Ferroalloy*: Ferroalloy gases are also rich in CO, making this another ideal emission source. We are developing projects using ferroalloy gases in target regions such as China, Norway and India.
- *Refining*: Certain refinery off-gases are ideal feedstocks for our process. A unique feature of processing refinery gases is that most of the carbon in the ethanol produced is derived directly from CO₂, rather than from CO. Oil and gas companies also have extensive experience producing and handling liquid fuels, gas processing, engineering, and chemical catalysis.

Solid Wastes and Reformed Landfill Gas

Biomass and agricultural residues offer the largest potential sources of feedstock for gasification. LanzaTech's approach capitalizes on these diverse and underutilized feedstocks, such as biomass, agricultural residues, MSW, mixed plastic waste, and reformed biogas, including landfill gas ("LFG"). Here's how we see the potential in these sources:

- *Biomass*: Biomass, including agricultural and forestry residues, can be gasified into syngas, a blend of CO and H₂. This feedstock is ideal for our process and offers the potential for renewable energy production, benefiting from renewable policy incentives. These projects can be deployed in smaller, modular systems, making them adaptable to different scales.
- *MSW and RDF*: MSW and Refuse Derived Fuel ("RDF") can also be converted into syngas, offering an environmentally friendly alternative to landfill and incineration, methods that are increasingly falling out of favor. This waste can be processed for conversion into fuels, chemicals, and materials, while tipping fees for waste disposal provide an additional revenue stream. These systems can be deployed modularly, enabling smaller-scale operations.
- *Reformed LFG*: Although only a fraction of landfills in the U.S. capture methane, LanzaTech sees a significant opportunity in utilizing this largely untapped feedstock. By capturing and processing LFG, we can clean the air, reduce methane emissions, and help remediate the environmental impact of landfills. This approach not only aids in carbon reduction but also improves the surrounding communities' environmental health.

By leveraging these waste streams, we aim to drive the production of CarbonSmart materials, offering a circular solution to waste management and carbon emissions, while supporting the transition to a more sustainable, low-carbon future.

Future Proofing Feedstock Capability

CO₂ from biorefineries, industrial emissions, and Direct Air Capture ("DAC") technologies, when combined with H₂, achieves over 90% carbon conversion efficiency. H₂ can be produced from renewable power (green) or steam methane reforming with carbon capture (blue), resulting in products with a significantly lower carbon footprint compared to petroleum refining. As H₂ content increases in the feedstock, more carbon is captured

in the ethanol product. We believe CO₂ has the potential to disrupt fuel and chemical supply chains by replacing conventional fossil resources.

We believe that our technology platform is well-positioned to benefit from decreasing renewable electricity prices and increasing capacity. In 2024, LanzaTech was awarded a contract with Jakson Green to provide 4G ethanol technology to NTPC Limited, India's largest power utility, using LanzaTech's platform and bioreactor to convert CO₂ and green H₂ into ethanol.

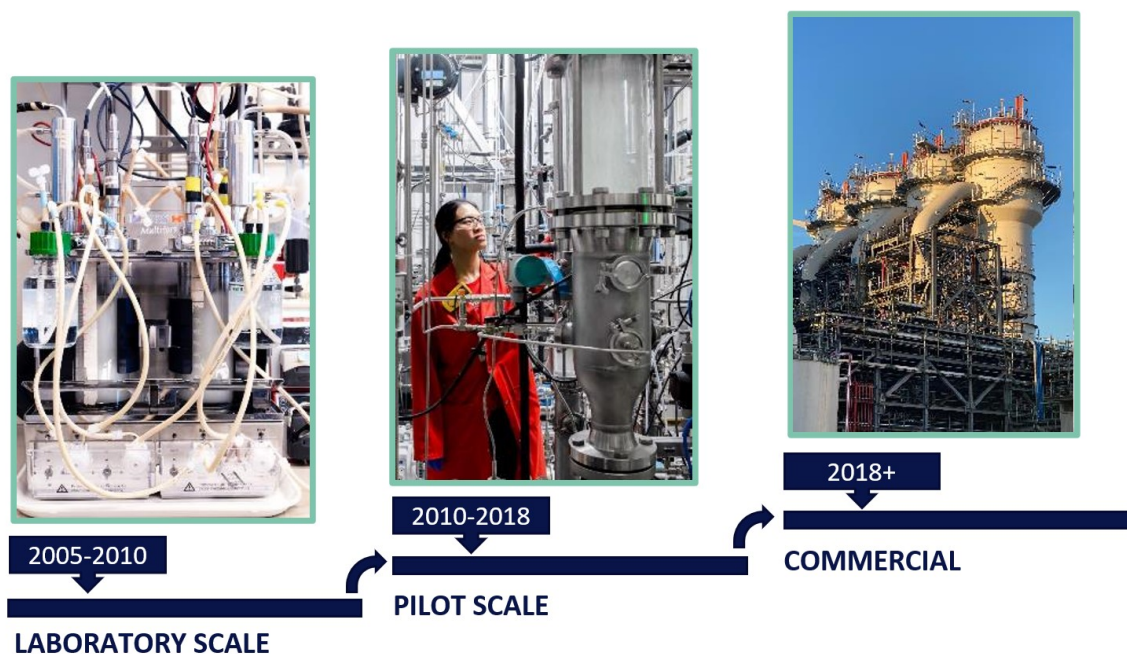
Integrating bio-based industrial CO₂ and eventually DAC technologies with LanzaTech's gas fermentation platform creates an opportunity for renewable fuel production from low-cost CO₂ feedstock. Integrating with LanzaJet's Alcohol to Jet ("ATJ-SPK") process can produce SAF from each of ethanol derived from CO₂ and H₂ produced by water electrolysis. DAC CO₂ to SAF is estimated to have a 94% emissions reduction when compared to the fossil counterpart at 94 g-CO₂e/MJ of ATJ-SPK.

Steel Industry Transition

LanzaTech's gas fermentation technology can adapt to the evolving off-gases from iron and steelmaking, leveraging the transition from carbon to hydrogen feedstocks. The system can remain in place at mills, utilizing hydrogen and carbon from on-site sources, such as electric arc furnaces, or shift to gasifying waste carbon resources like solid waste or biomass, or even use direct air capture. We believe that our early investments in GHG emission reduction technology position us to lead carbon recycling in other hard-to-abate sectors.

Technology Platform Development

LanzaTech has made significant strides over the past 19 years in developing and scaling its gas fermentation technology, and we are now seeing its widespread commercial deployment. Our technology has evolved from a small-scale, lab-based system to large-scale industrial plants capable of processing vast amounts of waste gases and transforming them into valuable products.



Key Milestones in Commercial Deployment:

- **Pilot and Demonstration Experience:** We have accumulated over 100,000 hours of field operation experience. This includes 50,000 hours of operation using steel mill waste gases and an additional 50,000 hours integrating gasification, gas treatment, and fermentation. This extensive operational history was critical in refining our technology and ensuring its scalability.
- **First Commercial Facility:** In May 2018, our partner successfully launched the world's first commercial gas fermentation facility at the Jingtang Steel Mill in Hebei Province, China. This facility marked a major milestone in transforming steel mill waste gases into ethanol on a commercial scale.
- **Additional Commercial Plants:**
 - Shoulang Jiyuan Plant (Ningxia, China) – operations started in April 2021, utilizing ferroalloy off-gases.
 - Ningxia Binze Plant (Ningxia, China) – operations started in September 2022, with an annual capacity of 60,000 tons, also using ferroalloy off-gas.
 - Guizhou Jinze Plant (China) – operations started in June 2023, also processing ferroalloy off-gases, with a capacity of 60,000 tons per year.
 - Panipat Refinery Plant (India) – operations started in September 2023, utilizing refinery off-gases with a capacity of 33,500 tons annually.
 - Steelanol Plant (Belgium) – operations started in November 2023, processing steel mill off-gas, with a capacity of 64,000 tons per year.

Key Achievements:

- **75 Million Gallons of Ethanol:** These six commercial plants have collectively produced over 75 million gallons of fuel-grade ethanol, contributing to the reduction of 380,000 tons of CO₂ emissions, since May 2018.
- **Global Expansion:** A 1/10th commercial-scale facility in Japan is operational, utilizing gasified unsorted municipal solid waste (“MSW”) as a feedstock. These facilities, completed in 2022, are key in showcasing the versatility and scalability of our technology.
- **Pipeline of Future Projects:** LanzaTech has several additional plants in various stages of advanced engineering development. These plants will utilize a diverse mix of feedstocks, including industrial off-gases, gasified solids, CO₂, and H₂. Some plants will also focus on producing SAF using our ATJ process.

Applications of Our Technology Platform

LanzaTech's technology platform is designed to enable businesses worldwide to transform carbon from waste resources into valuable products, promoting a CarbonSmart circular economy. This innovative approach allows companies to recycle carbon into new products, reducing the reliance on virgin fossil resources. We empower both resource providers and end users to become more carbon-efficient by locking carbon into products instead of releasing it into the atmosphere.

CARBONSMART IS THE FUTURE FOR PREMIUM LOW CARBON PRODUCTS

LanzaTech purchases CarbonSmart™ ethanol from LanzaTech licensed plants and sells the ethanol directly to customers or SAF producers



- **Ethanol Products:** Our technology produces ethanol, which serves as a chemical building block for various consumer goods, including:
 - Sustainable fuels, such as SAF, which is essential in the global transition to greener energy.
 - Household cleaners: Ethanol derived from our carbon transformation process can be used in cleaning products, reducing the environmental impact associated with conventional cleaning products.
 - Packaging materials: Ethanol can be a key ingredient in producing sustainable packaging materials for products like cosmetics, contributing to the reduction of plastic waste.
 - Fibers for clothing: We are also involved in the supply chain for the production of fibers for the fashion industry, helping to make the textile industry more sustainable.
 - Fragrances: Ethanol from our process can serve as a sustainable input for fragrances and perfumes, contributing to the reduction of petrochemical dependence in the fragrance industry.
- **Protein Products:** Another significant area where we are making an impact is the production of protein products, which are used as:
 - Animal feed: The protein-rich byproducts of our fermentation process can be utilized as animal feed, helping to create a more sustainable supply chain for the livestock industry.
 - Fish feed: Our protein co-products also serve as a valuable input in fish feed, promoting more sustainable practices in aquaculture.
 - Fertilizers: Additionally, these protein-rich byproducts can be used in the production of fertilizers, closing the loop in the agricultural sector.

While the ethanol used in these initial CarbonSmart products originates from our partner's commercial facilities in China, our long-term vision is to expand this production to facilities worldwide. This would allow us to reach a larger global market, offering sustainable products and contributing to the decarbonization of multiple

industries. As we continue to scale our technology, we expect the adoption of CarbonSmart products to grow and play a crucial role in reducing carbon emissions across the supply chain, enabling industries to embrace more sustainable practices.

Sustainable Aviation Fuel Products

Ethanol produced by us can be blended into road transport fuels or can be converted through the LanzaJet ATJ process to an ethanol-based ATJ-SPK and to sustainable diesel, both of which can be blended with their fossil equivalents. LanzaJet ATJ-SPK from our ethanol can demonstrate up to 85% GHG reduction compared to fossil alternatives depending on circumstances, including feedstock, geography and methodology. ATJ-SPK is qualified for use at up to a 50% blend level with conventional jet fuel for all commercial flights. This process demonstrates a high potential yield of approximately 90% for sustainable aviation fuel, positioning it as a commercially attractive pathway for renewable jet fuel production.

Competition

We compete in industries characterized by rapidly advancing technologies and a complex intellectual property landscape. We face competition from many different sources, including companies that enjoy competitive advantages over us, such as greater financial, research and development, manufacturing, personnel and marketing resources, greater brand recognition, and more experience and expertise.

While we do not view any company as a direct competitor across all aspects of our business, there are some companies with alignment in feedstock usage, products, synthetic biology, process design or commercial scale. While competing companies may be able to deliver some of these capabilities, we believe that no other company can currently deliver all of them in an integrated way.

These competitors may introduce competing products without our prior knowledge and without our ability to take preemptive measures in anticipation of their commercial launch. Competition may increase further as a result of greater availability of capital for investment and increased interest in our industry as more companies seek to facilitate the development of a carbon circular economy.

Intellectual Property

We strive to protect our intellectual property through a combination of trade secrets, confidential information, patents, trademarks, copyrights, nondisclosure agreements, material transfer agreements, employee agreements, and intellectual property and confidentiality clauses in collaboration and other agreements. We do not consider any individual patent, patent family or trademark to be material to our overall business.

Intellectual Property Overview and Risks

Most of our intellectual property assets were developed and are owned solely by us, a few have been developed via collaboration, some of which are jointly owned with third parties, and a small number have been acquired or licensed from third parties. We expect that we will continue to make additional patent application filings and that we will continue to pursue opportunities to acquire and license additional intellectual property assets, technologies, platforms or products as developments arise or are identified.

We cannot be certain that any of the patent filings or other intellectual property rights that we have pursued or obtained will provide the protection we seek. Our future commercial success depends, in part, on our ability to obtain and maintain patent and other proprietary protection for commercially important technology, inventions and know-how related to our business; defend and enforce our patents and other intellectual property; preserve the confidentiality of our trade secrets; and operate without infringing, misappropriating or violating the valid and enforceable patents and other intellectual property rights of third parties. Our ability to stop third parties from making, using, selling, offering to sell or importing our products may depend on the extent to which we have rights under valid and enforceable patents, trade secrets or other intellectual property rights that cover these activities. With respect to both our owned and licensed intellectual property, we cannot be sure that patents will issue with respect to any of the owned or licensed pending patent applications or with respect to any patent applications that we, our co-

owners or our licensors may file in the future, nor can we be sure that any of our owned or licensed patents or any patents that may be issued in the future to us or our licensors will be commercially useful in protecting any products that we ultimately attempt to commercialize, or any method of making or using such products.

Under the “march-in” provisions of the Bayh-Dole Act, the government may have the right under limited circumstances to require us to grant exclusive, partially exclusive or non-exclusive rights to third parties under any intellectual property discovered through government-funded programs. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements for public use specified by federal regulations or to give preference to U.S. industry. Specifically, certain of our granted and pending patents that cover recombinant and other microorganisms, cell-free protein synthesis platforms, protein expression vectors, fermentative production pathways, and microbial and ethanol conversion pathways may be subject to march-in-rights. These patents account for less than one percent of our granted and pending patents.

Customers

For the fiscal year ended December 31, 2024, our largest contracting entity accounted for 25% of our revenue. For the fiscal year ended December 31, 2023, our largest contracting entity accounted for 38% of our revenue. Our customer mix can change rapidly, and we may see changes in customer concentrations in the future. If or when any of our significant customer relationships terminate for any reason, and we are not able to replace those customers and associated revenues, our business, financial condition, and results of operations may be adversely affected.

Key Collaboration Agreements

LanzaJet Agreements

LanzaJet Amended and Restated Investment Agreement

On April 1, 2021, we entered into an amended and restated investment agreement with LanzaJet, Mitsui, Suncor, British Airways and Shell. We refer to this agreement as the “LanzaJet Investment Agreement.” The LanzaJet Investment Agreement was entered into in order to facilitate the production of SAF by designing, constructing and operating a demonstration facility located at the LanzaTech Freedom Pines Biorefinery in Soperton, Georgia (the “LanzaJet Freedom Pines Demonstration Facility”), and to determine the feasibility of developing additional potential facilities for commercial scale production of fuel.

Under the LanzaJet Investment Agreement, we received shares of common stock of LanzaJet (“LanzaJet shares”), in exchange for a license to our rights and obligations under the Battelle License Agreement (entered into with Battelle in September 2018 and amended in April 2020), refer to further discussions below under “— License Agreement with LanzaJet”). Pursuant to the LanzaJet Investment Agreement, Mitsui, Shell, British Airways and Suncor each contributed an initial cash investment in exchange for shares of common stock of LanzaJet.

Each of Mitsui, Shell, British Airways and Suncor agreed to make an additional cash investment following the achievement of certain development milestones relating to the demonstration facility, which payments we refer to as second tranche investments. If made, the second tranche investments would fund the development and operation of commercial facilities by Mitsui, Shell, British Airways and Suncor, respectively. These commercial facilities would sublicense the relevant fuel production technology from LanzaJet. Upon the closing of each of the first three of these second tranche investments and no later than the sublicensing of the relevant facility, LanzaJet is required to issue additional LanzaJet shares to us. 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 per the Investment Agreement which increased our ownership. As of December 31, 2024, we hold approximately 36.33% of the outstanding shares of LanzaJet. Upon the issuance of additional shares to us in connection with the closing of each of the remaining potential tranches of investment, we could hold up to approximately 46% and 53% of the outstanding shares of LanzaJet, respectively. Unless and until the third tranche of investments is made and assuming none of the employee equity incentive pool is issued as shares, LanzaJet undertakes an initial public

offering or a sale of LanzaJet occurs under certain circumstances, we would remain a minority shareholder of LanzaJet.

The LanzaJet Investment Agreement may be terminated by the mutual consent of the parties at any time or automatically as to the second tranche obligations of any party if LanzaJet has not called for such party to make a second tranche cash investment by December 31, 2025. Each party to the LanzaJet Investment Agreement agreed to indemnify the other parties for all claims arising from such party's breach of the agreement or from fraud, gross negligence, or willful misconduct with regard to the agreement.

License Agreement with LanzaJet

In May 2020, in connection with the LanzaJet Investment Agreement, we entered into the LanzaJet License Agreement. Under the LanzaJet License Agreement, we granted to LanzaJet a perpetual, worldwide, non-transferrable, irrevocable, royalty-free, sublicensable, exclusive license to all of our intellectual property rights under the Battelle License Agreement (refers to the agreement entered into with Battelle in September 2018, and further amended in 2020, under which Battelle granted to us an exclusive sublicensable commercial license to certain patents related to the conversion of ethanol to fuels), as well as other intellectual property owned by us relating to the conversion of ethanol to fuels. LanzaJet assumed all of our obligations under the Battelle License Agreement, including development, reporting, royalty payment and sublicensing obligations. LanzaJet assumed all of our rights under the Battelle License Agreement except for our rights, in certain circumstances, to terminate the agreement, to amend the agreement or to assign our rights thereunder, provided that we may not exercise these rights without LanzaJet's prior consent.

The license granted by us to LanzaJet is exclusive, including as against us, with the exception of certain development projects we are undertaking in collaboration with the U.S. Department of Energy or pursuant to certain grants from the U.S. Department of Energy, for which LanzaJet granted us a worldwide, non-transferable, non-sublicensable, non-exclusive, royalty-free sublicense to the relevant intellectual property rights. LanzaJet also agreed to grant us a non-exclusive sublicense at most-favored nation pricing to fulfill certain pre-existing SAF obligations if we are unable to fulfill these obligations through other off-take agreements.

The LanzaJet License Agreement has an indefinite term. If LanzaJet fails to perform its obligations under the Battelle License Agreement, we may continue to perform our obligations under such agreement. LanzaJet may terminate the LanzaJet License Agreement immediately upon notice to us if a material portion of the licensed subject matter is determined by a court to be invalid. We may terminate the agreement upon 30 days' written notice if LanzaJet materially breaches the agreement and fails to cure after receiving notice of the breach. If certain commercial facility development milestones are not met by December 31, 2025, under the LanzaJet Investment Agreement, we may terminate the LanzaJet License Agreement and after such termination, the agreement will survive solely with respect to the LanzaJet Freedom Pines Demonstration Facility. If the agreement is terminated for any other reason, LanzaJet's license will cease immediately but any sublicenses granted by LanzaJet prior to termination of the agreement will survive, subject to their terms. We and LanzaJet agreed to indemnify the other against certain third-party claims.

LanzaJet Amended and Restated Stockholders' Agreement

In connection with the LanzaJet Investment Agreement, on April 1, 2021, we entered into an amended and restated stockholders' agreement with LanzaJet, Shell, Mitsui, British Airways and Suncor (the "LanzaJet Stockholders' Agreement"). Under the LanzaJet Stockholders' Agreement, each party is required to hold and vote its shares of LanzaJet stock to ensure that LanzaJet's board of directors (the "LanzaJet board") is composed of eight directors: one designee from each of British Airways, Mitsui, Suncor and Shell, two LanzaTech designees (one of which will be the chairperson), LanzaJet's chief executive officer, and one independent director. Each party must hold a certain number of shares of LanzaJet common stock in order to maintain their respective designated board seats. Pursuant to the agreement, if a party votes to remove its designated director from the LanzaJet board, the other parties must also vote in favor of removal. If a party fails to comply with its obligations under the second tranche investments provided for in the LanzaJet Investment Agreement, the other parties may vote to remove that party's

designee, and such party will forfeit its designated LanzaJet board seat in exchange for the right to designate a non-voting observer to the LanzaJet board.

The agreement also provides that the parties must vote their shares in favor of a proposed change of control transaction and take all reasonable steps necessary to execute the transaction if it meets certain standards and is approved by us, the LanzaJet board, and any investor holding a certain number of LanzaJet shares.

The parties to the LanzaJet Stockholders' Agreement may not transfer their LanzaJet shares until 2026, except for permitted transfers to affiliates. LanzaJet has a right of first refusal with regard to all transfers of LanzaJet shares to third parties and if LanzaJet declines to exercise this right, the other parties to the agreement are entitled to a pro rata right of first refusal. We and the other parties will also have a pro rata right of first refusal with regard to new LanzaJet shares issued as well as a put right with respect to LanzaJet shares that we and such parties hold upon the occurrence of certain conditions. The LanzaJet Stockholders' Agreement also provides registration rights in connection with an initial public offering of or other registration of LanzaJet shares.

Each party to the LanzaJet Stockholders' Agreement agrees to indemnify the other parties for all claims arising from such party's breach of the agreement or from fraud, gross negligence, or willful misconduct with regard to the agreement. The LanzaJet Stockholders' Agreement will terminate either with the consent of all of the parties or upon an initial public offering of LanzaJet shares or a specified liquidation event.

LanzaJet Note Purchase Agreement

On November 9, 2022, we and the other LanzaJet shareholders entered into the LanzaJet Note Purchase Agreement, pursuant to which FPF, a wholly owned subsidiary of LanzaJet, will issue, from time to time, notes in an aggregate principal amount of up to \$147.0 million (the "LanzaJet Notes"), comprised of approximately \$113.5 million aggregate principal amount of 6.00% Senior Secured Notes due December 31, 2043 and \$33.5 million aggregate principal amount of 6.00% Subordinated Secured Notes due December 31, 2043. We committed to purchase \$5.5 million of Subordinated Secured Notes in a funding which occurred 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 all intellectual property owned or in-licensed by LanzaJet. LanzaJet also provides a guarantee of any costs and expenses required to complete the LanzaJet Freedom Pines Demonstration Facility and achieve commercial operation.

Each purchaser of LanzaJet Notes under the LanzaJet Note Purchase Agreement is also entitled to receive a warrant for the right to purchase 575 shares of common stock of LanzaJet for each \$10,000 of LanzaJet Notes purchased by such purchaser. On May 1, 2023, we received warrants to purchase 316,250 shares of common stock of LanzaJet for an exercise price of \$0.01 per share in connection with our purchase of \$5.5 million of LanzaJet Notes.

Under the LanzaJet Note Purchase Agreement, FPF must provide periodic progress reports and financial information to the noteholders, in addition to providing notice of certain significant events. Additionally, FPF is restricted from undertaking certain transactions or making certain restricted payments while the LanzaJet Notes are outstanding. The LanzaJet Note Purchase Agreement may be amended with the approval of FPF and all noteholders. Upon an event of default under the Note Purchase Agreement, each purchaser may accelerate its own LanzaJet Notes. Enforcement against the collateral securing the LanzaJet Notes requires the approval of certain holders as specified in the LanzaJet Notes. Under the LanzaJet Note Purchase Agreement, FPF has agreed to indemnify the noteholders for certain liabilities.

Mitsui Alliance Agreement

On February 15, 2022, we entered into an amended and restated collaboration agreement with Mitsui which was further amended on March 24, 2022 and October 2, 2022 (as amended, the "Mitsui Alliance Agreement"). Under the Mitsui Alliance Agreement, Mitsui must use commercially reasonable efforts to promote our gasification, waste-to-ethanol and CarbonSmart technology and establish commercial facilities using this technology in Japan. In exchange, we agreed to exclusively promote and designate Mitsui as our preferred provider of investment and off-take services worldwide, as well as our preferred provider of engineering, procurement and construction services in

Japan, subject to exceptions for certain of our existing commercial partnerships that allow us to recommend Brookfield as a provider of investment services in specified circumstances, including the Brookfield Framework Agreement. We and Mitsui agreed to share prospective customer information and to structure package offerings of our combined services through either a joint venture or royalty payment structure.

Under the Mitsui Alliance Agreement, we may not recommend any alternative provider of the aforementioned services without the advance written consent of Mitsui. In addition, we agreed to provide Mitsui with the right to first offer its services to any customer who requires or requests these services. We must obtain written consent from Mitsui before soliciting customers or marketing or recommending our waste-to-ethanol technology in Japan.

The Mitsui Alliance Agreement may be terminated by Mitsui without cause with three months' notice. The agreement may be terminated by us or Mitsui if the other party becomes insolvent or if the agreement is materially breached and the breaching party fails to cure within 30 days after receiving notice of the breach. We and Mitsui have agreed to indemnify each other against certain third-party claims.

Shougang Joint Venture

Articles of Association of Beijing Shougang LanzaTech Technology Co., Ltd

Through our subsidiary LanzaTech Hong Kong Limited, a limited liability company organized in Hong Kong, we hold approximately 9.3% of the outstanding shares of Beijing Shougang LanzaTech Technology Co., Ltd (the "Shougang Joint Venture") as a result of our contribution of certain intellectual property rights (see " — *Shougang Joint Venture License Agreement*" below). Our rights and responsibilities as a holder of such shares are set forth in the Shougang Joint Venture's Articles of Association, effective in November 2021. Because our shares were issued before an initial public offering of the Shougang Joint Venture, our shares may not be transferred within one year from the date on which the Shougang Joint Venture's shares are publicly listed. The Shougang Joint Venture has an indefinite duration.

At the general meeting of shareholders of the Shougang Joint Venture, shareholders have the authority to determine the Shougang Joint Venture's business plan, elect and replace directors, increase or decrease the registered capital of the Shougang Joint Venture, amend the Shougang Joint Venture, dissolve the Shougang Joint Venture, and approve certain transactions, among other functions. As a holder of more than 3% of the shares of the Shougang Joint Venture, we have the right to submit proposals to the Shougang Joint Venture at general meetings.

Except as otherwise provided, and in accordance with accounting provisions of the Shougang Joint Venture, when a distribution of Shougang Joint Venture profits is approved, the Shougang Joint Venture's after-tax profits are distributed in proportion to the shares held by shareholders. In the event of a liquidation, the Shougang Joint Venture's property must be distributed in proportion to the shares held by shareholders after liquidation expenses, wages of employees, statutory compensation, owed tax and Shougang Joint Venture debts are paid. If we object to a resolution on merger and division of the Shougang Joint Venture, we can request the Shougang Joint Venture acquire our shares.

Shougang Joint Venture License Agreement

On September 6, 2021, we entered into an Intellectual Property Rights License Agreement with the Shougang Joint Venture, which was subsequently amended in August 2023 (as amended, the "Shougang Joint Venture License Agreement"). Under the Shougang Joint Venture License Agreement, we granted the Shougang Joint Venture a license to certain of our intellectual property rights, including certain patented fermentation processes, alcohol production processes, novel bacteria and trademarks. The license we granted to the Shougang Joint Venture is a non-transferable (except with our written consent), exclusive, sublicensable commercial license under the licensed subject matter, to utilize gas fermentation technology to produce ethanol and by-products at commercial facilities in China. The Shougang Joint Venture may sublicense its rights to third-party contractors acting on its behalf, subject to certain conditions.

In consideration for the licenses we granted to the Shougang Joint Venture, the Shougang Joint Venture agreed to pay us a royalty on a graduated scale from 8% to 20% of all sublicensing revenues that become payable to the Shougang Joint Venture in connection with the establishment and sublicensing of certain commercial facilities by the Shougang Joint Venture after the first commercial facility. For the year ended December 31, 2024, we did not recognize any royalty revenue from the Shougang Joint Venture. In 2023, the Company recognized \$1.2 million one-time revenue pursuant to the Royalty Payment Plan with the Shougang Joint Venture and corresponding to the fixed licensing consideration calculated as a percentage of the maximum amount of royalties owed to SGLT from its sublicenses. Because our shareholding ratio in the Shougang Joint Venture has fallen below 10% due to a financing prior to the submission of an application by the Shougang Joint Venture for an initial public offering on a securities exchange in China, we have the right to request an adjustment to the royalty rates payable to us by the Shougang Joint Venture. This right will automatically terminate upon the submission of an application by the Shougang Joint Venture for an initial public offering on a securities exchange in China. If such application is subsequently terminated, our right to request an adjustment to the royalty rates will resume. The Shougang Joint Venture License Agreement provides that we will solely own all developed technology that results from, is based on, or uses the licensed subject matter in the operation of the Shougang Joint Venture, and all such technology will be subject to the license granted to the Shougang Joint Venture.

The Shougang Joint Venture has a right to cooperate with third parties regarding any commercial license under the licensed subject matter, subject to certain conditions. We agreed not to enter into any agreement with any third party preventing the Shougang Joint Venture's rights on the licensed subject matter in China. If the Shougang Joint Venture has not entered negotiations or signed an agreement with a third party for commencement of a project within a certain period of time, we will be free to engage with such third party ourselves.

Upon submission of an application by the Shougang Joint Venture for an initial public offering on a securities exchange in China, if we enter liquidation and as a result the Shougang Joint Venture License Agreement is terminated, the Shougang Joint Venture will be granted an option to call for an assignment of patents that are licensed pursuant to the agreement at that time, provided we first receive a written irrevocable, non-exclusive sublicense for the surviving term of such patents. If the Shougang Joint Venture's application for an initial public offering is revoked or otherwise terminated, this call option will automatically become void. If the Shougang Joint Venture's right to the licensed subject matter is prohibited or restricted by operation of United States export controls, the Shougang Joint Venture has the right to continue to use the licensed subject matter as provided in the agreement. In such event, so long as the Shougang Joint Venture's continued use of the licensed subject matter complies with the agreement, we agreed not to initiate patent infringement claims against the Shougang Joint Venture.

The Shougang Joint Venture License Agreement will continue until the earlier of (a) the date the final licensed intellectual property right expires or terminates, (b) the date the last commercial facility is permanently decommissioned and (c) termination of the agreement. The agreement will terminate automatically in the event that the Shougang Joint Venture dissolves or is liquidated, institutes or actively participates in any action, suit or proceeding to invalidate or limit the scope of the licensed subject matter, or breaches certain provisions of the agreement. We may terminate the Shougang Joint Venture License Agreement upon default by the Shougang Joint Venture if the Shougang Joint Venture does not remedy the default within 60 days. We agreed to indemnify the Shougang Joint Venture, its affiliates and their current and former representatives from claims resulting from our material breach of the representations and warranties of the Shougang Joint Venture License Agreement. We have the first right to enforce and defend against infringement of the intellectual property licensed under the Shougang Joint Venture License Agreement and to recover any monetary compensation awarded in any litigation proceedings. If we fail to do so, the Shougang Joint Venture may enforce and defend the licensed intellectual property against infringement.

Agreements with Brookfield

Brookfield Framework Agreement

On October 2, 2022, we entered into a framework agreement with BGTF LT Aggregator LP, an affiliate of Brookfield Asset Management Inc. ("Brookfield" and such agreement, the "Brookfield Framework Agreement"). Under the Brookfield Framework Agreement, we agreed to exclusively offer Brookfield the opportunity to acquire

or invest in certain projects to construct commercial production facilities employing CCT technology in the U.S., the European Union, the United Kingdom, Canada or Mexico for which we are solely or jointly responsible for obtaining or providing equity financing, subject to certain exceptions. We agreed to present Brookfield with projects that over the term of the agreement require equity funding of at least \$500 million in the aggregate. With respect to projects acquired by Brookfield, we are 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. Additionally, we agreed to recommend Brookfield to customers that, in our reasonable judgment, are likely to need third-party funding to develop, construct and own projects subject to the Brookfield Framework Agreement.

Brookfield's exclusivity will terminate upon the earliest of (a) the aggregate equity funding by Brookfield in projects acquired by Brookfield of at least \$500 million, along with Brookfield's written notice that it will no longer maintain access to at least \$500 million to fund new projects, (b) Brookfield's rejection of a specified number of projects that otherwise meet certain criteria over a specified time period, and (c) October 2, 2027, which is the date the Brookfield Framework Agreement is set to terminate.

Brookfield SAFE

On October 2, 2022, concurrently with the Brookfield Framework Agreement, we entered into a Simple Agreement for Future Equity with Brookfield (the "Brookfield SAFE"). Under the Brookfield SAFE, we agreed to issue to Brookfield the right to certain shares of Legacy LanzaTech's capital stock, in exchange for the payment of \$50 million ("the Initial Purchase Amount"). Following the completion of the Business Combination, Brookfield could, at any time at its option, convert all or a portion of the remaining Initial Purchase Amount into shares of common stock at a price per share of \$10.00. The Initial Purchase Amount would be reduced by increments of \$5 million and interest forgiven in respect of such portion for each \$50 million of aggregate equity funding required for qualifying projects presented to Brookfield in accordance with the Brookfield Framework Agreement. On February 14, 2025, the Company and Brookfield terminated the Brookfield SAFE and concurrently entered into a Loan Agreement. See Note 19 - Subsequent Events in the Company's consolidated financial statements.

Brookfield Cooperation Letter Agreement

On October 2, 2022, in connection with our entry into the Brookfield Framework Agreement, we entered into a letter agreement with Suncor and Brookfield (the "Brookfield Cooperation Letter Agreement"). Under the Brookfield Cooperation Letter Agreement, we agreed to simultaneously notify Suncor upon the submission of any notice to Brookfield that a project is construction-ready under the Brookfield Framework Agreement for any equity investment opportunity in Canada or Colorado. For any of such investment opportunities Brookfield pursues, Brookfield has agreed under the Brookfield Cooperation Letter Agreement to grant Suncor the right to invest up to a certain percentage that lies between 15 – 25% of the required equity capital on economic terms at least as favorable as those granted to Brookfield and any other third-party investors.

Under the Brookfield Cooperation Letter Agreement, Suncor agreed to notify Brookfield of any projects using our technology that Suncor establishes which require equity capital from a third-party. Suncor has also agreed to consider any investment proposal presented to it by Brookfield pursuant to such notification prior to the execution of agreements with other third parties.

Government Regulation

Environmental Regulation

Our business, along with the businesses of our customers who license our technology, is governed by various international, national, and regional laws regarding renewable fuels, environmental protection, and the ethanol industry. These regulations affect our operations by imposing requirements such as:

- existing and proposed business operations or the need to install enhanced or additional pollution controls;

- need to obtain and comply with permits and authorizations;
- liability for exceeding applicable permit limits or legal requirements; and
- specifications related to the ethanol we market and produce.

GHG emissions are subject to environmental laws and regulations in the various jurisdictions in which we and our customers have operations. In the normal course of business, we and our customers and partners may be involved in legal proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act, the Resource Conservation and Recovery Act, and similar environmental laws.

Some of our and our customers' operations are within jurisdictions that have or are developing regulatory regimes governing emissions of GHGs, including CO₂. These include existing coverage under the European Union Emission Trading System, the California cap and trade scheme, India's Performance, Achieve and Trade scheme, South Africa's Trade Exposure and Greenhouse Gas Benchmark Regulations, the Tokyo Cap-and-Trade Program, China's Emission Trading Scheme and any potential expansions of these policies or related policies. In addition, the EPA requires mandatory reporting of GHG emissions and is regulating GHG emissions for new construction and major modifications to existing facilities.

Increased public concern surrounding the emission of GHGs may result in more international, national, or regional requirements to reduce or mitigate the effects of GHG emissions. While carbon reduction legislation will support the business case for implementing carbon capture technology, we cannot predict the manner or extent to which such legislation may affect our customers and partners and ultimately help or harm our business.

Our business could be affected in the future by additional international, national, and regional regulation, pricing of GHG emissions or other climate change legislation, regulation, or agreements. The potential relaxing of requirements to reduce or mitigate the effects of GHG emissions could also negatively impact our business. It is difficult at this time to estimate the likelihood of passage, or predict the potential impact, of any additional legislation, regulations or agreements. Potential consequences of new obligations could include increased technology, transportation, material, and administrative costs and may require us to make additional investments in our operations. As we continue distributing our technology to our target markets, international, national, or regional government entities may seek to impose regulations or competitors may seek to influence regulations through lobbying efforts.

Fuel Ethanol Regulation

Various governmental programs globally impact the supply and demand for ethanol, which can impact many of our customers and partners' operations. In the U.S., the Renewable Fuel Standard II (RFS II) mandates the use of renewable fuels, with the Environmental Protection Agency influencing ethanol volumes. Currently, ethanol derived from LanzaTech's industrial emissions does not qualify for Renewable Identification Numbers under RFS II. Regulatory and trading policies at the international, federal, and state levels will affect ethanol supply for our target markets.

Chemical Regulation

Regulatory issues surrounding the approval of chemicals from new pathways and the import of genetically modified microorganisms ("GMM") vary by jurisdiction but share common elements, such as safety in production and end-use, required testing, and notification procedures. Despite being chemically identical to regulated substances, new production routes often require similar approval processes as outlined by the US Toxic Substances Control Act and the EU's REACH program. The import and use of GMM, including biocatalysts, are also encompassed by these regulations. To date, we have secured around 26 approvals for our biocatalysts across the USA, China, India, Austria, Belgium, and Japan. Given the unique approval requirements in each jurisdiction, we engage external experts to streamline the process, as legislation concerning new pathways is still evolving to align with global best practices.

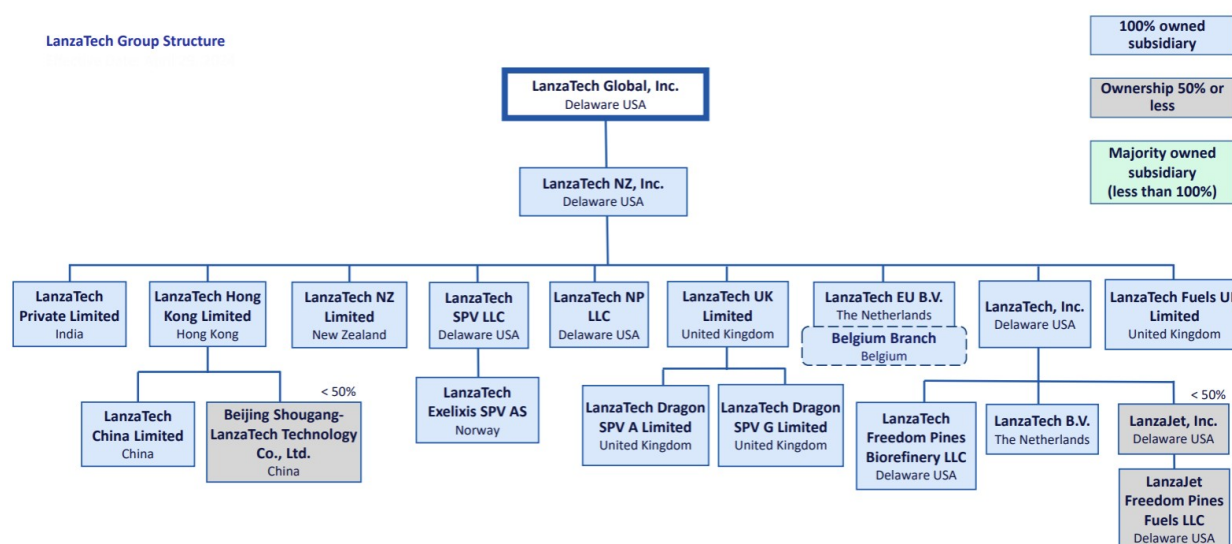
Human Capital

As of December 31, 2024, we had 384 employees, including 383 full-time equivalent employees, working for LanzaTech in the United States, China, India, the United Kingdom, the European Union and New Zealand. We have no collective bargaining agreements with our employees.

Corporate Information

We were incorporated in Delaware on January 28, 2021, under the name AMCI Acquisition Corp. II (“AMCI”), in order to effectuate a merger, capital stock exchange, asset acquisition, stock purchase, reorganization or similar business combination with one or more businesses or entities. AMCI completed its initial public offering on August 6, 2021. On February 8, 2023 (the “Closing Date”), AMCI and LanzaTech NZ, Inc. (“Legacy LanzaTech”) consummated a business combination pursuant to that certain Merger Agreement dated as of March 8, 2022, as amended on December 7, 2022, by and among Legacy LanzaTech, AMCI and AMCI Merger Sub, Inc. (“Merger Sub”). As contemplated by the Merger Agreement, 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”). On the Closing Date, AMCI changed its name to LanzaTech Global, Inc.

The following chart illustrates the organizational structure of LanzaTech and its subsidiaries as of December 31, 2024:



Company Website and Available Information

LanzaTech's website address is www.lanzatech.com. We use our website as a channel of distribution for company, financial and other information. Our website also includes information about our corporate governance. We intend to post on our website any amendment or waiver of the Code of Business Ethics with respect to a member of our Board or any of the executive officers named in our proxy statement. Information contained on our website is not part of this report.

On the Investor Relations page on our website, we make available our Annual Report on Form 10-K, our Quarterly Reports on Form 10-Q, our Current Reports on Form 8-K and any amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the “Exchange Act”). The SEC maintains www.sec.gov, containing annual, quarterly and current reports, proxy statements and other information we file electronically with the SEC.

Recent Developments

As previously announced, LanzaTech is focused on shifting its core operations from research and development to globally deploying the Company's proven technology. We are streamlining our priorities to sharpen our business focus and improve our cost structure and evaluating other liquidity enhancing initiatives, including pursuing capital raising, partnership or asset-related opportunities, and other strategic options.

On April 3, 2025, our Board received a preliminary, nonbinding proposal from Carbon Direct Capital to acquire all of the outstanding shares of the Company's common stock for \$0.02 per share (the "Take-Private Proposal"). Carbon Direct Capital is the holder of the Company's outstanding \$40.2 million Convertible Note, excluding payment-in-kind interest from the issue date, which upon conversion, would entitle it to receive shares of common stock representing approximately 14.6% of our common stock based on the total number of shares of common stock of the Company outstanding on April 10, 2025 (see Part II, "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Sources and Uses of Capital" herein). The Strategic Committee of the Board (the "Strategic Committee") is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with the Company's financial advisor and legal counsel. There is no guarantee that the Take-Private Proposal will be accepted by the Strategic Committee or the Board, that definitive documentation relating to any such transaction will be executed, or that a transaction will be consummated in accordance with that documentation, if at all.

Item 1A. Risk Factors

An investment in our equity securities involves a high degree of risk. Before you make a decision to buy our equity securities, in addition to the risks and uncertainties discussed in the section titled “Forward-Looking Statements,” you should carefully consider the risks and uncertainties described below, together with all of the other information contained in this annual report, including our financial statements and related notes appearing at the end of this annual report and in the section titled “Management’s Discussion and Analysis of Financial Condition and Results of Operations.” If any of the events or developments described below were to occur, our business, prospects, operating results and financial condition could suffer materially, the trading price of our equity securities could decline and you could lose all or part of your investment. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently believe to be immaterial may also adversely affect our business.

Summary of Risk Factors

An investment in shares of our common stock involves substantial risks and uncertainties that may materially adversely affect our business, financial condition and results of operations and cash flows. Some of the more significant challenges and risks relating to an investment in our Company are summarized below. The following is only a summary of the principal risks that may materially adversely affect our business, financial condition, results of operations and cash flows. The following should be read in conjunction with the more complete discussion of the risk factors we face, which are set forth in Part I, “Item 1A- Risk Factors” in this Annual Report.

- There is substantial doubt about our ability to continue as a going concern.
- We will require substantial financing to fund our operations, which financing may result in restrictions on our operations or substantial dilution to our stockholders, and which might not be available on acceptable terms, if at all.
- There is no assurance that the Take-Private Proposal will result in a definitive transaction.
- We have incurred losses and anticipate continuing to incur losses, and have not yet generated material revenues.
- If we fail to maintain compliance with the continued listing requirements of Nasdaq, our common stock could be delisted, negatively impacting its price, liquidity, and our ability to access the capital markets.
- The success of our partners’ plant operations is significantly dependent upon the strong execution and operation of each project by the respective industry partner as we rely, and expect to continue to rely, heavily on industry partners to effect our growth strategy and to execute our business plan, and our failure to successfully maintain and manage these relationships and enter into new relationships could prevent us from achieving or sustaining profitability.
- Fluctuations in the prices of waste-based feedstocks used to manufacture the products produced using our process technologies, the price of fossil feedstocks relative to the price of our waste-based feedstocks, and the availability of the waste-based feedstocks may affect our or our industry partners’ cost structure, gross margin and ability to compete.
- We compete in an industry characterized by rapidly advancing technologies, intense competition and a complex intellectual property landscape, and our failure to successfully compete with other companies in our industry may have a material adverse effect on our business, financial condition and results of operations and market share.
- Even if we successfully develop process technologies that produce products meeting our industry partners’ specifications, the adoption of such process technologies by our industry partners may be delayed or reduced, or our costs may increase.

- Failure of LanzaJet to complete its initial facility or failure of third parties to adopt the LanzaJet process in their commercial facilities for the production of SAF may severely impact our business, financial condition, results of operations and prospects.
- Governmental programs designed to incentivize the production and consumption of low-carbon fuels and carbon capture and utilization, may be implemented in a way that does not include products produced using our novel technology platform and process technologies or could be repealed, curtailed or otherwise changed, which would have a material adverse effect on our business, results of operations and financial condition.
- We may be unable to scale fast enough to reach profitability levels sufficient to generate a return on investment.
- Waste-based and other feedstock may be used in alternative processes, restricting the addressable market for LanzaTech.
- If we experience a significant disruption in our information technology systems, including security breaches, or if we fail to implement new systems and software successfully, our business operations and financial condition could be adversely affected.
- Political and economic uncertainty, including tariffs and changes in policies of the Chinese government or in relations between China and the United States, may impact our revenue and materially and adversely affect our business, financial condition, and results of operations.
- Our ability or the ability of our partners to operate in China may be impaired by changes in Chinese laws and regulations, including those relating to taxation, environmental regulation, restrictions on foreign investment, and other matters, which can change quickly with little advance notice.
- Our operations and financial results may be impacted if the Chinese government determines that the contractual arrangements constituting part of the Shougang Joint Venture VIE structure do not comply with Chinese regulations, or if these regulations change or are interpreted differently in the future.
- We and our partners may be subject to regulatory actions by the Chinese government targeting concerns related to data security and monopolistic behavior.
- Changes in China's economic, political or social conditions or legal system or government policies could have a material adverse effect on our business and operations.
- We may be subject to risks that the Chinese government may intervene or influence our operations at any time.
- We and our industry partners are subject to extensive international, national and regional laws and regulations, and any changes in laws or regulations, or failure to comply with these laws and regulations, could have a material adverse effect on our business.
- Market prices for more sustainable, waste-based products that our process technologies enable are subject to volatility and there is a limited referenceable market for such products.
- Our patent rights and trade secrets protections may not provide commercially meaningful protection against competition, and we may not be able to operate our business without infringing the proprietary rights of third parties.

Risks Related to Our Business and Industry

There is substantial doubt about our ability to continue as a going concern.

The Company has recurring net losses and anticipates continuing to incur losses. As of December 31, 2024, we had cash and cash equivalents of \$43.5 million, short-term held-to-maturity debt investments of \$12.4 million and accumulated deficit of \$(969.6) million, along with cash outflows from operations of \$(89.1) million and net loss of \$(137.7) million for the year ended December 31, 2024. Based on our liquidity position as of December 31, 2024 and our current forecast of operating results and cash flows, we anticipate that we will not have sufficient resources to fund our cash obligations for the next 12 months following the issuance of our consolidated financial statements for the year ended December 31, 2024. Management has concluded, and the report of our auditors included in this Annual Report reflects, that our ability to continue as a going concern is dependent on our ability to execute our business plan, raise significant amounts of additional capital and/or implement other strategic options. The Company is actively pursuing the above actions. However, because certain of the actions described above are subject to market and other conditions not within the Company's control, management has concluded that these plans do not alleviate substantial doubt about the Company ability to continue as a going concern.

If we are unable to continue as a going concern, we may have to liquidate our assets and may receive less than the value at which those assets are carried on our financial statements, and it is likely that investors will lose all or part of their investment. Further, the perception that we may be unable to continue as a going concern may impede our ability to pursue strategic opportunities or operate our business due to concerns regarding our ability to fulfill our contractual or performance obligations. In addition, if there remains substantial doubt about our ability to continue as a going concern, investors or other financing sources may be unwilling to provide additional funding to us on commercially reasonable terms, or at all. Perceived uncertainties related to our ability to continue as a going concern and speculation regarding the status of the various strategic options that the Company is considering, including the Take-Private Proposal, could impact our ability to retain, attract, or strengthen our relationships with key personnel and other employees, and could impact our ability to retain, attract or strengthen our relationships with current and potential partners, which may cause them to terminate, or not renew or enter into, arrangements or projects with us.

We will require substantial financing to fund our operations which financing may result in restrictions on our operations or substantial dilution to our stockholders, and which might not be available on acceptable terms, if at all.

Our operations have consumed substantial amounts of cash since inception. We have historically funded our operations through the Business Combination, issuances of equity securities, debt financing, as well as from revenue generating activities with commercial and governmental entities. We cannot be certain when or if our operations will generate sufficient cash to fully fund our ongoing operations or the growth of our business.

Management has concluded that there is substantial doubt about our ability to continue as a going concern, and therefore, we are currently evaluating options to enhance our liquidity position with financing. Securing financing could require a substantial amount of time and attention from our management and may divert a disproportionate amount of its attention away from our business activities, which may adversely affect our ability to conduct our day-to-day operations and execute on our business initiatives. In addition, we cannot guarantee that future financing will be available in sufficient amounts or on terms acceptable to us, if at all.

To raise additional funds to support our business operations, we may sell additional equity or convertible securities which would result in the issuance of additional shares of our capital stock and dilution to our stockholders. The incurrence of indebtedness would result in increased fixed payment obligations and could also result in certain restrictive covenants, such as limitations on our ability to incur additional debt or secure such 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 raise additional capital in sufficient amounts or on terms acceptable to us, we will have to reduce our operating or investing expenditures, which will cause a delay or reduction in our technology development and commercialization programs, and substantially impair our ability to generate revenues, meet our liquidity needs and continue operations. See “—There is substantial doubt about our ability to continue as a going concern” above.

There is no assurance that the non-binding proposal from Carbon Direct Capital to take the Company private will result in a definitive transaction.

We received a non-binding proposal on April 3, 2025, from Carbon Direct Capital offering to acquire all of the outstanding shares of our common stock for \$0.02 per share (the “Take-Private Proposal”).

The Strategic Committee is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with the Company’s financial advisor and legal counsel. There is no guarantee that any proposal made by Carbon Direct Capital regarding a proposed transaction will be accepted by the Strategic Committee, that definitive documentation relating to any such transaction will be executed, or that a transaction will be consummated in accordance with that documentation, if at all. If we do not enter into the Take-Private Proposal, or if its terms are changed, it may impact our ability to execute on other strategic options, which would likely have an adverse effect on the market price of shares of our common stock.

Additionally, the work required to support the exploration of a possible take-private transaction has diverted and is likely to continue to divert management’s time and attention, which may impact the day-to-day business of the Company and our results of operations.

We have incurred losses and anticipate continuing to incur losses.

We have not achieved operating profitability in any quarter since our formation. Our net losses after tax were approximately \$137.7 million for the year ended December 31, 2024 and \$134.1 million for the year ended December 31, 2023. As of December 31, 2024, we had an accumulated deficit of \$969.6 million. We anticipate that we will continue to incur losses until we can sufficiently scale our operations. We cannot guarantee when we will operate profitably, if ever. The profitability of products produced using our process technologies depends largely on manufacturing costs and the market prices of the products produced using our process technologies. In the case of the partners with which we have entered licensing agreements, the prices they are able to charge impact the royalty fees we derive from their revenues. We must sustain the relationships we have developed with our current partners and successfully establish relationships with new partners to which we can license our proprietary technologies or with whom we can co-develop plants, and we must continue to find ways to further enhance our technology platform and product portfolio. If we are unable to successfully take these steps, we may never operate profitably, and, even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future.

If we lose key personnel or are unable to attract, integrate and retain additional key personnel, it could harm our research and development efforts, delay the commercialization of the new process technologies or the new aspects of our existing process technologies, delay the launch of process technologies in our development pipeline and impair our ability to meet our business objectives.

Our business involves complex operations spanning a variety of disciplines and demanding a management team and employee workforce that is knowledgeable in the many areas necessary for our operations. The loss of any key member of our management team or key research and development or operational employees, or the failure to attract and retain such employees, could prevent us from developing and commercializing new process technologies or the new aspects of our existing process technologies, delay the launch of process technologies in our development pipeline and impair our ability to meet our business objectives.

We may not be able to attract or retain qualified employees due to the intense competition for qualified personnel among technology-based businesses, or due to the scarcity of personnel with the qualifications or experience necessary for our business. Hiring, training and successfully integrating qualified personnel into our operations can be a lengthy and expensive process, and efforts to integrate such personnel may not be successful. The market for qualified personnel is very competitive because of the limited number of people available with the necessary technical skills and understanding of our technology, and given the number of companies in this industry seeking this type of personnel. If we are not able to attract, integrate and retain the necessary personnel to accomplish our business objectives and continue to compensate such individuals competitively, we may experience staffing constraints that will adversely affect our ability to support our internal research and development programs. In particular, our production process development, process engineering, research and development, and plant operations programs are dependent on our ability to attract, integrate and retain highly skilled scientific, technical

and operational personnel. Competition for such personnel from numerous companies and academic and other research institutions may limit our ability to do so on acceptable terms, or at all. As we continue to expand our international operations, these personnel-related risks will increase and we will face additional geography-specific challenges, such as challenges hiring, training, and relocating employees to specific regions or countries and differing tax and regulatory regimes.

We and our industry partners have a limited operating history utilizing our technology with different feedstocks, which may make it difficult to evaluate our future viability and predict our future performance.

We and our partners have a limited operating history utilizing our process technologies with different feedstocks on which to base an evaluation of our business and prospects. Our operating results are not predictable and our historical results may not be indicative of our future results. Few peer companies with our business model exist and none have yet established long-term track records at scale that might assist us in predicting whether our business model and strategy can be implemented and sustained over an extended period of time. It may be difficult to evaluate our potential future performance without the benefit of established long-term track records from companies implementing a similar business model. We may encounter unanticipated problems as we continue to refine our business model and process technologies, and we may be forced to make significant changes to our anticipated sales and revenue models to compete with our competitors' offerings, which may adversely affect our results of operations and profitability.

We have not yet generated material revenues from new business lines and our revenue forecast must be considered in light of the uncertainty and risks frequently encountered by companies in their early stage of development.

We have not yet generated material revenues from new business lines. We are subject to the risks inherent to early-stage companies seeking to develop, market and distribute new products, particularly companies in evolving markets such as renewable energy and technology. The likelihood of our success must be considered in light of the problems, expenses, difficulties, complications and delays frequently encountered in connection with the development, introduction, marketing and distribution of new products in a competitive environment.

Such risks include dependence on the success and acceptance of our products, the ability to attract and retain a suitable partner base, and the management of growth. To address these risks, we must, among other things, further develop and enhance our process technologies, generate increased demand for our products, attract a sufficient partner base, collaborate with partners, respond to competitive developments, and attract, retain and motivate qualified personnel. We are thus subject to many of the risks common to companies in their early stage of development, including under-capitalization, cash shortages, limitations with respect to personnel, financial, and other resources and lack of revenues.

The success of our partners' plant operations is significantly dependent upon the strong execution and operation of each project by the respective industry partner as we rely, and expect to continue to rely, heavily on industry partners to effect our growth strategy and to execute our business plan. Our failure to successfully maintain and manage these relationships and enter into new relationships could delay our anticipated timelines, prevent the successful development and commercialization of products produced using our process technologies, negatively impact our financial results and prevent us from achieving or sustaining profitability.

Our ability to successfully maintain and manage partnering arrangements and enter into new partnering arrangements are critical factors to the success of our business and growth. We rely, and expect to continue to rely, heavily on such arrangements. We have limited or no control over the amount or timing of resources that any third party commits to negotiating a partnering arrangement with us or, if negotiated and entered into, the timing or amount of resources that a third party will commit to our projects. Any third party with which we are in negotiations may experience a change of policy or priorities and may discontinue negotiations with us. Any of our industry partners may fail to perform their obligations as expected. These industry partners may breach or terminate their agreements with us or otherwise fail to conduct their partnering activities successfully and in a timely manner. Further, our industry partners may not develop commercially viable products in connection with our partnering

arrangements or devote sufficient resources to the development, manufacture, marketing and sale of products produced using our process technologies. Moreover, disagreements with an industry partner could develop, and any such conflict could reduce our ability to enter into future partnering agreements and negatively impact our relationships with one or more existing industry partners. Any of these events could delay our anticipated timelines, prevent the successful development and commercialization of products produced using our process technologies, negatively impact our financial results, and prevent us from ever achieving or sustaining profitability. These negative consequences could be augmented in the event that we are forced to seek replacement partners.

Our current and future partnering opportunities could be harmed if:

- we do not achieve our objectives under our arrangements in a timely manner, or at all;
- we disagree with our industry partners as to rights to intellectual property we jointly develop or that they must license from us, or as to their research programs or commercialization activities;
- we are unable to successfully manage multiple partnering arrangements occurring at the same time;
- applicable laws, regulations or state actors, domestic or foreign, impede our ability to enter into strategic arrangements;
- we develop processes or enter into additional partnering arrangements that conflict with the business objectives of our other arrangements;
- our industry partners become competitors of ours or enter into agreements with our competitors; or
- consolidation in our target markets limits the number of potential industry partners.

Additionally, because we have entered into exclusive arrangements with industry partners, other potential partners in our industry may choose to compete against us, rather than partner with us. This may limit our partnering opportunities and harm our business and prospects. Our business also could be negatively impacted if any of our industry partners undergoes a change of control or assigns the rights or obligations under any of our agreements. If any of our industry partners were to assign these agreements to our competitors or to a third party who is not willing to work with us on the same terms or commit the same resources as the current industry partner, our business and prospects could be adversely affected.

Even if we are successful in entering into strategic partnering arrangements, there are a number of different arrangements that we can pursue, and there are no assurances that we will select and negotiate the best arrangements for us and our stockholders.

We seek to commercialize our process technologies by pursuing licensing arrangements in some markets and seek arrangements to co-develop projects in others. Our business strategy is based on a wide variety of factors, including the size and competitive environment in each market, and our perceived ability to best monetize our proprietary technology. The types of arrangements we enter into with our industry partners will be significant in determining the amount of risk and control that we maintain with respect to the development and commercialization of products produced using our process technologies. The contractual arrangements with our industry partners will also determine the amount of capital we need to contribute to a particular project, as well as the revenue we may receive and the margins associated with any sale of products produced using our process technologies. We will need to analyze these issues properly and negotiate corresponding arrangements with our industry partners to efficiently balance the amount of risk we take, the level of control we maintain and the amount of revenues and margins we obtain with respect to the products produced using our process technologies. There are no assurances that we will select and negotiate the best arrangements for us and our stockholders. Failure to choose optimal arrangements could result in delays or failures in the commercial development of certain products produced using our process technologies, sub-optimal economic returns and capital commitments that negatively impact our business, and our ability to successfully pursue multiple opportunities in parallel.

We have entered into and anticipate entering into non-binding letters of intent, memoranda of understanding, term sheets and other arrangements with potential industry partners and cannot assure you that such arrangements will lead to definitive agreements. If we are unable to finalize these arrangements in a timely manner and on terms favorable to us, our business will be adversely affected.

We have engaged in negotiations with a number of companies and have agreed to preliminary terms regarding the development and commercialization of certain products produced using our process technologies. We may be unable to negotiate final terms in a timely manner, or at all, and there is no guarantee that the terms of any final, definitive, binding agreement will be the same or similar to those currently contemplated in a preliminary agreement. Final terms may be less favorable to us than those set forth in the preliminary agreements. Delays in negotiating final, definitive, binding agreements could slow the development and commercialization of products produced using our process technologies. Failure to agree to final terms for the development and commercialization of such products could prevent us from growing our business, result in wasted resources and cause us to consume capital significantly faster than we currently anticipate.

We continue to face significant risks associated with our international expansion strategy.

We are continuing to seek new opportunities to produce and commercialize products using our process technologies outside the United States through entering into licensing and co-development arrangements with new and existing industry partners. Our international business operations are subject to a variety of risks, including:

- challenges associated with operating in diverse cultural and legal environments, including legal restrictions that impact our ability to enter into strategic partnering arrangements;
- the need to comply with a variety of U.S. laws applicable to the conduct of overseas operations, including export control laws and the Foreign Corrupt Practices Act and local law requirements;
- our ability, or reduced ability, to protect our intellectual property in certain countries;
- potential for longer sales cycles in certain countries;
- changes in or interpretations of foreign rules and regulations that may adversely affect our or our industry partners' ability to produce or sell products manufactured using our process technologies or repatriate profits to the United States;
- economic, political or social instability in foreign countries;
- changes in demand for products produced using our process technologies in international markets;
- the imposition of tariffs and other foreign taxes;
- the imposition of limitations on, or increase of, withholding and other taxes on remittances and other payments by foreign subsidiaries or joint ventures;
- limitations on the production or movement of genetically engineered products or processes and the production or sale of products or processes manufactured using genetically engineered products, into, out of and within foreign countries; and
- the availability of government subsidies or other incentives that benefit competitors in their local markets that are not available to us.

Our inability to overcome these obstacles could harm our business, financial condition and operating results. Even if we are successful in managing these obstacles, our industry partners internationally are subject to these same risks and may not be able to manage these obstacles effectively.

Construction of our or our partners' plants may not be completed in the expected timeframe or in a cost-effective manner. Any delays in the construction of plants could severely impact our business, financial condition, results of operations and prospects.

Our projected financial performance and results of operations depend on our ability and our partners' abilities to construct several commercial scale plants. With respect to these future plants, we and our partners also do not have agreements with engineering, procurement or construction firms. Consequently, we cannot predict on what terms such firms may agree to design and construct future plants.

If we and our partners are unable to construct these plants within the planned timeframes, in a cost-effective manner or at all due to a variety of factors, including, but not limited to, a failure to acquire or lease land on which to build plants, a stoppage of construction as a result of any global health crises or pandemic, the imposition or heightening of tariffs, sanctions or other economic or military measures in relation to the current conflicts in Europe and the Middle-East, unexpected construction problems, permitting and other regulatory issues, severe weather, labor disputes, and issues with subcontractors or vendors, including payment disputes, our business, financial condition, results of operations and prospects could be severely impacted.

The construction and commission of any new project is dependent on a number of contingencies some of which are beyond our and our partners' control. There is a risk that significant unanticipated costs or delays could arise due to, among other things, errors or omissions, unanticipated or concealed project site conditions, including subsurface conditions and changes to such conditions, unforeseen technical issues or increases in plant and equipment costs, insufficiency of water supply and other utility infrastructure, or inadequate contractual arrangements. Should these or other significant unanticipated costs arise, this could have a material adverse impact on our business, financial condition, results of operations and prospects. No assurance can be given that construction will be completed on time or at all, or as to whether we and our partners will have sufficient funds available to complete construction.

Failure to continuously reduce operating and capital costs for our and our partners' facilities that deploy our process technologies may impact adoption of our process technologies and could severely impact our business, financial condition, results of operations and prospects.

We anticipate the deployment of numerous commercial facilities to accelerate the commercialization of our process. If we are unable to adequately reduce and control the operating and capital costs of our and our partners' facilities that deploy our process technologies, we will be unable to realize manufacturing volume and cost targets. We and our partners may have to significantly reduce our spending, delay or cancel our planned activities or substantially change our current business model. This could slow the market adoption of our process technologies and products, damage our reputation with current or prospective industry partners and investors, and harm our business, financial condition, results of operations and prospects.

Maintenance, expansion and refurbishment of our and our partners' facilities, the construction of new facilities and the development and implementation of our new process technologies or new aspects of our existing process technologies involve significant risks.

Our facilities and our partners' facilities may require regular or periodic maintenance, upgrading, expansion, refurbishment or improvement. Any unexpected operational or mechanical failure, including failure associated with breakdowns and forced outages, could reduce the facilities' production capacity below expected levels, which would reduce our and our partners' production capabilities and ultimately our revenues. Unanticipated capital expenditures associated with maintaining, upgrading, expanding, repairing, refurbishing, or improving facilities may also reduce our profitability. Our facilities and our partners' facilities may also be subject to unanticipated damage as a result of natural disasters, terrorist attacks or other events.

If we or our partners make any major modifications to facilities, such modifications likely would result in substantial additional capital expenditures and could prolong the time necessary to bring the facility online. We or our partners may also choose to refurbish or upgrade facilities based on our assessment that such activity will provide adequate financial returns. However, such activities require time for development and capital expenditures before commencement of commercial operations, and key assumptions underpinning a decision to make such an

investment may prove incorrect, including assumptions regarding construction costs and timing, which could harm our business, financial condition, results of operations and cash flows.

The construction of new manufacturing facilities entails a number of risks and assumptions, including the ability to begin production within the cost and timeframe estimated and to attract a sufficient number of skilled workers to meet the needs of the new facility. Additionally, our and our partners' assessment of the projected benefits associated with the construction of new manufacturing facilities is subject to a number of estimates and assumptions, which in turn are subject to significant economic, competitive and other uncertainties that are beyond our control. If we or our partners experience delays or increased costs, our estimates and assumptions are incorrect, or other unforeseen events occur, our business, ability to supply our industry partners, financial condition, results of operations and cash flows could be adversely impacted.

Finally, we may not be successful or efficient in developing or implementing new process technologies or new aspects of our existing process technologies. Innovation in production processes involves significant expense and carries inherent risks, including difficulties in designing and developing new process technologies, development and production timing delays, lower than anticipated manufacturing yields, and product defects. Disruptions in the production process can also result from errors, defects in materials, delays in obtaining or revising operating permits and licenses, returns of product from our industry partners, interruption in our supply of materials or resources, and disruptions at our or our partners' facilities due to accidents, maintenance issues, or unsafe working conditions, all of which could affect the timing of production ramps and yields. Production issues can lead to increased costs and may affect our and our partners' ability to meet product demand, which could adversely impact our business and results from operations.

Our government grants are subject to uncertainty, which could harm our business and results of operations.

We have sought and may continue to seek to obtain government grants in the future to offset a portion of the costs of our research and development, commercialization and other activities. We cannot be certain that we will be able to secure any such government grants in a timely fashion, or at all. Moreover, any of our existing grants or new grants that we may obtain may be terminated, modified or recovered by the granting governmental body. If such grant funding is discontinued, our revenue and cash received from grants will decrease. If we do not receive grants we are counting on, our liquidity will be impacted, which will impact our ability to grow or maintain our business.

We may also be subject to additional regulations and audits by government agencies as part of routine audits of our activities funded by our government grants. As part of an audit, these agencies may review our performance, cost structures and compliance with applicable laws, regulations and standards. Funds available under grants must be applied by us toward the research and development programs specified by the granting agencies, rather than for all of our programs generally. If any of our costs are found to be allocated improperly, the costs may not be reimbursed and any costs already reimbursed may have to be refunded. Accordingly, an audit could result in an adjustment to our revenues and results of operations.

Failure of LanzaJet to complete its initial facility or failure of third parties to adopt the LanzaJet process in their commercial facilities for the production of SAF may severely impact our business, financial condition, results of operations and prospects.

Pursuant to the LanzaJet Investment Agreement, described in more detail in the section entitled "Business — Key Collaboration Agreements — LanzaJet Agreements — LanzaJet Amended and Restated Investment Agreement," Mitsui, Suncor Energy Inc. ("Suncor"), British Airways PLC, a subsidiary of International Consolidated Airlines Group ("British Airways") and Shell Ventures LLC ("Shell") have committed to invest in LanzaJet a total of up to \$120 million in second tranche investments upon the achievement of certain development milestones relating to an initial demonstration facility located at the LanzaTech Freedom Pines Biorefinery in Soperton, Georgia (the "Soperton facility"). Pursuant to the LanzaJet Investment Agreement, \$45 million has already been invested in setting up LanzaJet and in constructing the Soperton facility. Our partners have likewise agreed to determine the feasibility of developing additional potential facilities for the commercial scale production of alcohol-to-jet ("ATJ") fuel.

Although LanzaJet is currently working with the partners mentioned above to confirm project locations and solidify the appropriate project structures, and we are developing projects ourselves to construct and operate facilities that would use the LanzaJet process, there is no guarantee that these facilities will be completed or that third parties will adopt the LanzaJet process in their commercial facilities for the production of SAF. The failure of LanzaJet to complete its initial facility or of third parties to adopt the LanzaJet process in their commercial facilities could severely impact our business, financial condition, results of operations and prospects.

Furthermore, we currently have approximately a 36.33% voting interest (including in-substance common stock) in LanzaJet and are not able to make decisions on behalf of LanzaJet without support from other shareholders. We will remain a minority shareholder in LanzaJet unless we are issued additional shares pursuant to the LanzaJet Amended and Restated Investment Agreement upon the closing of at least two of the second tranche investments by any of Mitsui, Suncor, British Airways and Shell. The conditions for these second tranche investments include performance requirements at the Soperton facility, regulatory approvals, the negotiation of additional agreements and other conditions which are outside our control. These conditions have not been, and may never be, met. As such, we cannot guarantee when or whether we will become majority shareholders in, or exercise control over, LanzaJet at any time in the future.

LanzaJet has an exclusive license to some of our intellectual property related to SAF.

In connection with the LanzaJet Investment Agreement, we entered into an intellectual property and technology license agreement (the “LanzaJet License Agreement”) with LanzaJet. Pursuant to the LanzaJet License Agreement, we granted to LanzaJet a perpetual, worldwide, non-transferrable, irrevocable, royalty-free, sublicensable, exclusive license to certain intellectual property related to the conversion of ethanol to fuel. This license is exclusive including as to us. With the exception of certain pre-existing SAF obligations and development projects for which we have already been granted sublicenses, we are unable to undertake new SAF production opportunities using the licensed intellectual property, or otherwise use such intellectual property for the conversion of ethanol to fuel, without the prior consent of LanzaJet while the LanzaJet License Agreement is in effect. We cannot guarantee that LanzaJet would grant such consent or otherwise agree to grant to us a license of intellectual property and our receipt thereof would depend on negotiations with our fellow shareholders of LanzaJet.

In connection with the LanzaJet Shareholder Loan described in more detail in the section entitled “Business — Key Collaboration Agreements — LanzaJet Agreements — LanzaJet Amended and Restated Stockholders’ Agreement,” LanzaJet collaterally assigned its license from LanzaTech to secure the LanzaJet Freedom Pines Fuels LLC (“FPF”) shareholder debt. In the event of a default by FPF, LanzaJet shareholders could prevent LanzaJet from funding FPF to cure its default and ultimately foreclose on LanzaJet’s license.

Our commercial success may be influenced by the price of fossil feedstocks relative to the price of our waste-based feedstocks.

Our commercial success may be influenced by the cost of our and our partners’ products produced using our process technologies relative to fossil feedstock-based products. The cost of fossil feedstock-based products is in part based on the price of fossil feedstocks, which are subject to historically fluctuating prices. If the price of waste-based feedstocks increases and/or the price of fossil feedstocks decreases, products produced using our process technologies may be less competitive relative to fossil feedstock-based products. A material decrease in the cost of conventional fossil feedstock-based products may require a reduction in the prices of products produced using our process technologies for them to remain attractive in the marketplace and may negatively impact our revenues.

Fluctuations in the prices of waste-based feedstocks used to manufacture the products produced using our process technologies may affect our or our industry partners’ cost structure, gross margin and ability to compete.

The cost to produce the products we commercialize with our industry partners is highly dependent on the cost and usage of various waste-based feedstocks. The prices of many of these feedstocks are cyclical and volatile. An increase in the price of the waste-based feedstocks used to manufacture the products produced using our process technologies would likely change our or our industry partners’ cost structure and impact our gross margin. At certain levels, waste-based feedstock prices may make the products produced using our process technologies uneconomical to manufacture.

Although there may be indices that show the pricing of the feedstock used for production that closely track to products produced using our process technologies, there are no assurances that these indices will be valid or, if valid, that current prices will not later change. In addition, we may underestimate the volume of feedstock required to operate at commercial scale. For example, although the feedstock usage quantities are based on predictable chemical reactions, the actual consumption required to produce SAF on a commercial scale may be greater, affecting production cost and impacting production volumes. We cannot control the cost of these feedstocks, and we could underestimate feedstock pricing and volume requirements. These uncertainties could affect our costs, or the costs of our industry partners, and our gross margin. Although we believe that our process technologies can operate on multiple feedstocks in the event that prices of specific feedstocks fluctuate, we have not tested this on a commercial scale and cannot guarantee that feedstocks are interchangeable without requiring significant alterations to our process technologies.

Declines in the prices of feedstocks our competitors use to produce their products could allow them to reduce the prices of their products, which could cause us or our industry partners to reduce the prices of the products produced using our process technologies. This could make it uneconomical for our partners to produce products using our process technologies.

The cost to produce the products our competitors and our industry partners' competitors are commercializing and attempting to commercialize is highly dependent on the cost and usage of various feedstocks. The cost to produce ethanol by our competitors is highly dependent on the prices of corn, sorghum, barley, sugar cane and sugar beets. The prices of many of these feedstocks are cyclical and volatile. Declines in the prices of the feedstocks our competitors use to produce their products could allow our competitors to reduce the prices of their products. This in turn could cause our industry partners to have to reduce the prices of any competing products that are commercialized using our process technologies, or make it uneconomical for our partners to produce products using our process technologies, which would reduce the revenues we generate in connection with our partners' sale of such products. Even the perception of future declines in the feedstocks our competitors utilize may adversely affect the prices our industry partners can obtain from our industry partners or prevent potential industry partners from entering into agreements to buy products produced using our process technologies.

If the availability of the waste-based feedstocks used in our process technologies declines or competition for them increases, we or our business partners may experience delayed or reduced production or be required to raise the prices of the products produced using our process technologies, either of which could reduce the demand for the products produced using our process technologies and our revenue.

The production of products using our process technologies will require large volumes of waste-based feedstocks. We cannot predict the future availability of any waste-based feedstock necessary to produce products using our process technologies. The supply of waste-based feedstocks might be impacted by a wide range of factors, including increased competition, weather conditions, natural disasters, droughts, floods, changes in the waste-producing industries, the imposition or heightening of tariffs, sanctions or other economic or military measures in relation to the current conflicts in Europe and Middle-East, or government policies and subsidies. Declines in the availability of the waste-based feedstocks used to produce products using our process technologies could cause delays or reductions in production, increases in the prices of products produced using our process technologies, and reductions in demand for products produced using our process technologies, resulting in reduced revenue for us.

We compete in an industry characterized by rapidly advancing technologies, intense competition and a complex intellectual property landscape, and our failure to successfully compete with other companies in our industry may have a material adverse effect on our business, financial condition and results of operations and market share.

While we do not believe we have any direct competitors, there can be no assurance that we will not have direct competition in the future, that such competitors will not substantially increase the resources devoted to the development and marketing of their products and services that compete with us, or that new or existing competitors will not enter the market in which we are active.

We face substantial indirect competition from many different sources, including companies that enjoy competitive advantages over us, such as greater financial, research and development, manufacturing, personnel and

marketing resources, greater brand recognition, stronger historical relationships with their customers and more experience and expertise in intellectual property rights and operating within certain international locations.

These competitors may introduce competing products without our prior knowledge and without our ability to take preemptive measures in anticipation of their commercial launch. Competition may increase further as a result of greater availability of capital for investment and increased interest in our industry as more companies seek to facilitate the development of a circular carbon economy. Our competitors may succeed in developing, acquiring or licensing on an exclusive or non-exclusive basis technologies that are more effective or less costly than those we have developed. Our failure to successfully compete may have a material adverse effect on our business, financial condition and results of operations and diminish our market share.

Technological innovation by others could render our technology and the products produced using our process technologies obsolete or uneconomical.

The fuel and chemical industries are characterized by rapid and significant technological change. Our success will depend on our ability to maintain a competitive position with respect to technological advances. Our technology and the products derived from our technology may be rendered obsolete or uneconomical by technological advances by others, more efficient and cost-effective products, or entirely different approaches developed by one or more of our competitors or other third parties. Though we plan to continue to expend significant resources to enhance our technology platform and processes, there are no assurances we will be able to keep pace with technological change.

Our financial results could vary significantly from quarter to quarter and are difficult to predict.

Our financial results could vary significantly from quarter to quarter because of a variety of factors, many of which are outside of our control and are difficult to predict. As a result, comparing our results of operations on a period-to-period basis may not be meaningful. In addition to the risk factors stated herein, other factors that could cause our quarterly results of operations to fluctuate include:

- achievement of, or failure to achieve, technology or product development milestones needed to allow us to enter identified markets on a timely and cost-effective basis;
- delays or greater than anticipated expenses associated with the scale-up and the commercialization of process technologies to produce new products;
- changes in the amount that we invest to develop, acquire or license new technologies and processes;
- our ability to successfully enter into partnering arrangements, and the terms of those relationships (including levels of related capital contributions);
- fluctuations in the prices or availability of the feedstocks required to produce products using our process technologies or those of our competitors;
- changes in the size and complexity of our organization;
- changes in general economic, industry and market conditions, both domestically and in our foreign markets;
- business interruptions, including disruptions in the production process at any facility where products produced using our process technologies are manufactured;
- departure of executives or other key management employees;
- changes in the needs for the products produced using our process technologies;
- the development of new competitive technologies or products by others and competitive pricing pressures;
- the timing, size and mix of sales to our industry partners for products produced using our process technologies;

- seasonal production and the sale of products produced using our process technologies; and
- changes in governmental, accounting and tax rules and regulations, environmental, health and safety requirements, and other rules and regulations.

Due to these and other factors, our financial results for any quarterly or annual period may not meet our expectations or the expectations of our investors and may not be meaningful indications of our future performance.

Even if we successfully develop process technologies that produce products meeting our industry partners' specifications, the adoption of such process technologies by our industry partners may be delayed or reduced, or our costs may increase, due to customer qualification, negative life cycle assessment or capital investment procedures.

Even if the products produced using our process technologies are produced at contractual or targeted specifications, as the case may be, we or our industry partners may face delays or reduced demand for such products related to current or future customer qualification trials that could take several months, complicated life cycle assessments, or capital investment procedures. For the products produced using our process technologies to be accepted, our industry partners may need to test and certify them for use in their processes and, in some cases, determine whether products that contain the products produced using our process technologies satisfy additional third-party specifications. We may need to demonstrate to our industry partners that the products produced using our process technologies do not contain impurities that cause such products to behave differently than their traditional equivalents in a way that impacts their end-product quality. Our industry partners, in turn, may need to validate the use of the products produced using our process technologies for third parties. Our products may require lengthy and complex life cycle assessments to evaluate the potential environmental impacts of the products through their entire life cycles, covering all relevant inputs from, and emissions into, the environment. Our industry partners' customers may need to engage in capital investment procedures to assess their abilities to invest in our products, which may result in those customers determining not to allocate their resources to purchasing our products. Meeting these suitability standards could be a time-consuming and expensive process, and our industry partners may invest substantial time and resources into such qualification efforts without ultimately securing approval by their customers. This could materially and adversely impact our revenues until customer qualification, positive life cycle assessment or capital investment procedures are achieved and maintained.

Our and our industry partners' failure to accurately forecast demand for any product produced using our process technologies could result in an unexpected shortfall or surplus that could negatively affect our results of operations.

Because of the length of time it takes to develop and commercialize the products produced using our process technologies, we and our industry partners must make development and production decisions well in advance of commercial production and sale of such products. Our and our industry partners' ability to accurately forecast demand for any of the products produced using our process technologies that are commercialized can be adversely affected by a number of factors, many of which are outside of our control, including actions by our competitors, changes in market conditions, environmental factors and adverse weather conditions. A shortfall or surplus in the supply of products produced using our process technologies may reduce our revenues, damage our reputation and adversely affect industry partner relationships, which could harm our business, results of operations and financial condition.

Our success is highly dependent on our ability to maintain and efficiently utilize our technology platform, and to effectively identify potential products from which to develop and commercialize new process technologies, and problems related to our technology platform could harm our business and result in wasted research and development efforts.

We are highly dependent on our technology platform for the development and commercialization of products and new process technologies. If we experience challenges in our technology platform, such as problems with engineering new microbes, or if we encounter problems interpreting and analyzing data using our process technologies, our business and ability to compete may be harmed and our financial condition negatively affected.

We may not be successful in identifying new market opportunities and needs and developing our technology platform, or process technologies to produce products to meet those needs, which would limit our prospects and lead to greater dependency on the success of a smaller number of target products.

The success of our business model depends in part on our ability to identify new market opportunities and needs for our technology platform, or process technologies to produce products to meet those needs. The manufacturing technologies we research and develop are new and continuously changing and advancing. The products that are derived from these technologies may not be applicable or compatible with demands in existing or future markets. Furthermore, we may not be able to identify new opportunities as they arise for products since future applications of any given product may not be readily determinable, and we cannot reasonably estimate the size of any markets that may develop. If we are not able to successfully identify new market opportunities and needs and develop new technologies, processes or products to meet those needs beyond those we currently develop, we may be unable to expand our business and will therefore be highly dependent on the revenues related to the products that can currently be produced using our process technologies.

Our failure or the failure of our industry partners to realize expected economies of scale could limit our or our partners' ability to sell products produced using our process technologies at competitive prices, negatively impact our ability to enter into other strategic arrangements and the potential for other industry partners to adopt our process technologies, and materially and adversely affect our business and prospects.

We and our industry partners may be unable to realize expected economies of scale in connection with scale up and commercialization efforts. The failure to achieve these efficiencies or realize these expected benefits could negatively impact our or our industry partners' ability to sell products produced using our process technologies at competitive prices, negatively impact our ability to enter into other strategic arrangements and the potential for other industry partners to adopt our process technologies, and materially and adversely affect our business and prospects.

Natural or man-made disasters, social, economic and political instability, and other similar events may significantly disrupt our and our industry partners' businesses, and negatively impact our results of operations and financial condition.

Our corporate headquarters are located in Skokie, Illinois and we work with industry partners in multiple other locations, including in China, Japan, India, Australia, UK and Belgium. These locations, in particular a number of our current and potential non-U.S. locations, may be subject to social, economic and political instability, such as social uprisings. Any of our or our industry partners' facilities may be harmed or rendered inoperable by natural or man-made disasters, including earthquakes, tornadoes, hurricanes, wildfires, floods, tsunamis, nuclear disasters, acts of terrorism or other criminal activities, the imposition or heightening of sanctions or other economic or military measures in relation to the current conflicts in Europe and the Middle-East, infectious disease outbreaks and power outages, which may render it difficult or impossible for us or our industry partners to operate our businesses for some period of time. Our and our industry partners' facilities would likely be costly to repair or replace, and any such efforts would likely require substantial time. Any disruptions in our or our industry partners' operations could negatively impact our business and results of operations, and harm our reputation. Our or our industry partners' disaster recovery plans may not be sufficient to address an actual disaster, in particular any events that negatively impact our or our industry partners' physical infrastructures. In addition, we and our industry partners may not carry sufficient business insurance to compensate for losses that may occur. Any such losses or damages could have a material adverse effect on our results of operations and financial condition, and success as an overall business.

Governmental programs designed to incentivize the production and consumption of low-carbon fuels and carbon capture and utilization, may be implemented in a way that does not include products produced using our novel technology platform and process technologies or could be repealed, curtailed or otherwise changed, which would have a material adverse effect on our business, results of operations and financial condition.

We and other participants in the biomass-based and low-carbon fuel industry rely on governmental programs requiring or incentivizing the production and consumption of fuels with lower carbon intensity than conventional fossil fuels and carbon capture and utilization. Biomass-based and low-carbon fuel has historically been more

expensive to produce than petroleum-based fuel given the lack of a carbon price or direct regulations and these governmental programs support a market for biomass-based and low-carbon fuel that might not otherwise exist.

One of the most important of these programs is the Renewable Fuel Standard II (“RFS II”), a Federal law which requires that transportation fuels in the United States contain a minimum amount of renewable fuel. This program is administered by the Environmental Protection Agency (“EPA”). The EPA’s authority includes setting annual minimum aggregate levels of consumption in four “nested” renewable fuel categories, including categories in which our fuel competes (including advanced biofuel, biomass-based diesel and cellulosic biofuel). The parties obligated to comply with this renewable volume obligation (“RVO”), are petroleum refiners and petroleum fuel importers. The EPA has not approved LanzaTech-derived ethanol from industrial emissions as a Renewable Identification Number (“RIN”) generating fuel (i.e., a fuel that generates credits) under the RFS II program, putting our ethanol at a competitive disadvantage if sold into ground transportation.

The United States Congress could repeal, curtail or otherwise change the RFS II program in a manner adverse to us, such as by excluding products produced using our novel technology platform and process technologies. Similarly, the EPA could curtail or otherwise change its administration of the RFS II program in a manner adverse to us, including by not increasing or even decreasing the RVO, by waiving compliance with the RVO or otherwise. Furthermore, judicial review of the EPA’s actions, including any judicial decisions that the EPA failed to adequately evaluate the environmental impacts of RFS II, could create uncertainty in the administration of the RFS II program. In addition, while Congress specified RFS II volume requirements through 2022 (subject to adjustment in the rule making process), beginning in 2023 required volumes of renewable fuel will be largely at the discretion of the EPA (in coordination with the Secretary of Energy and Secretary of Agriculture), which must set the volumes after evaluating a set of particular statutory factors. We cannot predict what changes, if any, will be instituted or the impact of any changes on our business, although adverse changes could seriously harm our business, results of operations and financial condition.

The California Low Carbon Fuel Standard (“LCFS”), is another program that provides a strong incentive for production of renewable diesel and alternative jet fuel, and fuels produced through methods involving carbon capture and utilization. The LCFS could be repealed or amended in a manner that eliminates or reduces this incentive, or could be implemented in a way that excludes or negatively affects products produced using our novel technology platform, such as by assigning a lower carbon intensity to a fuel pathway produced using a competitor’s technology.

Additionally, while the efforts of other jurisdictions to mitigate climate change are expected to result in the adoption of similar programs as the RFS II program or LCFS, increasing stakeholder scrutiny of the GHG, reduction benefits attributable to low-carbon fuels production and consumption could dampen interest in the adoption of similar programs. While the products produced using our process technologies generally compare favorably with conventional low-carbon fuels, public sentiment against reliance upon low-carbon fuels or carbon capture and utilization as pathways to deep decarbonization could adversely affect our market opportunities.

Any decline in the value of carbon credits or other incentives associated with products produced using our process technologies could harm our results of operations, cash flow and financial condition.

The value of products produced using our process technologies may be dependent on the value of incentive, programs relating to low-carbon materials and products standards and other similar regulatory regimes or the implicit value of decarbonized materials. The value of these incentives fluctuates based on market and regulatory forces outside of our control. Any decline in the value of such incentives could mean that the economic benefits from our industry partners’ efforts to decarbonize their operations might not be realized and could harm our results of operations, cash flow and financial condition. The value of carbon credits and other incentives may also be adversely affected by legislative, agency, or judicial determinations.

We expect to rely on a limited number of industry partners for a significant portion of our near-term revenue.

We currently have agreements with a limited number of industry partners, from which we expect to generate most of our revenues in the near future. Entities in which the Shougang Joint Venture holds a controlling interest operate the four currently operating commercial scale facilities that produce low carbon ethanol using our process

technology. In addition, commercial scale facility is in advanced stages of commissioning by our partner IndianOil. The facility is expected to finalize commissioning in the coming months. The loss of one or more of our industry partners, a substantial reduction in the scope of their projects, their failure to exercise customer options, their unwillingness to extend contractual deadlines if we are unable to meet production requirements, their inability to perform under their contracts or a significant deterioration in their financial condition could harm our business, results of operations and financial condition. If we fail to perform under the terms of these agreements, the industry partners could seek to terminate these agreements or pursue damages against us, including liquidated damages in certain instances, which could harm our business.

Our revenue is relatively concentrated within a small number of key customers, and the loss of one or more of such key customers may adversely affect our business, financial condition, and results of operations.

For the fiscal year ended December 31, 2024, our largest contracting entity accounted for 25% of our revenue. For the fiscal year ended December 31, 2023, our largest contracting entity accounted for 38% of our revenue. Our customer mix can change rapidly, and we may see changes in customer concentrations in the future. If or when any of our significant customer relationships terminate for any reason, and we are not able to replace those customers and associated revenues, our business, financial condition, and results of operations may be adversely affected.

We and our industry partners are subject to extensive international, national and subnational laws and regulations, and any changes in relevant laws or regulations, or failure to comply with these laws and regulations, could have a material adverse effect on our business and could substantially hinder our and our partners' ability to manufacture and commercialize products produced using our process technologies.

We and our industry partners are subject to extensive international, national and subnational laws and regulations relating to the production of renewable fuels, the protection of the environment and in support of the renewable fuels industry at large. These laws, their regulatory requirements and their implementation and enforcement impact our existing and potential business operations by imposing restrictions on our and our industry partners':

- existing and proposed business operations or the need to install enhanced or additional controls;
- need to obtain and comply with permits and authorizations;
- liability for exceeding applicable permit limits or legal requirements;
- specifications related to the ethanol and other products we or our industry partners market and produce using our process technologies;
- imposition of trade policy; or
- criteria for assessing the carbon intensity and GHG emissions attributable to fuels or chemicals produced using our process technologies.

In the normal course of business, we and our industry partners may be involved in administrative or legal proceedings under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the Resource Conservation and Recovery Act of 1976 ("RCRA") in the United States, and similar environmental laws across the globe relating to the designation of certain sites for investigation or remediation with respect to environmental risks, the disposal of hazardous waste, and reduction of the hazards associated with storage, handling and transportation of the products we and our industrial partners produce. Potential consequences of these proceedings can include the need to pay for remediation of contaminated sites, the costs of which can be significant and uncertain.

Likewise, in the normal course of business, we and our industry partners may need to obtain and comply with air emissions permits pursuant to the Clean Air Act and water discharge permits pursuant to the Clean Water Act in the United States, and similar environmental permits and authorizations across the globe relating to air and water

emissions. Potential changes to regulatory, permit and authorization standards, requirements or processes may result in uncertainty and additional costs for us and our industry partners.

Furthermore, GHG emissions are subject to environmental laws and regulations in some of the various jurisdictions in which we and our industry partners have operations. Some of our and our industry partners' operations are within jurisdictions that have or are developing regulatory regimes governing emissions of GHGs, including carbon dioxide (CO₂). These include existing coverage under the European Union Emission Trading System, the California cap and trade scheme, India's Performance, Achieve and Trade scheme, South Africa's Trade Exposure and Greenhouse Gas Benchmark Regulations, the Tokyo Cap-and-Trade Program, China's Emission Trading Scheme, related subnational programs and any potential expansions of these policies or related policies. In addition, the EPA requires mandatory reporting of GHG emissions. The EPA and California regulate the amount of GHGs that may be emitted by new motor vehicles, including light-, medium-, and heavy-duty vehicles. The EPA sets GHG standards for new commercial airplanes. California and several states also implement zero-emission vehicle standards, which require manufacturers to produce and sell an increasing volume of electric vehicles. These and related regulations could be implemented and developed in ways that reduce or eliminate reliance on carbon-based fuels in transportation, for example, by hastening the widespread adoption of electricity or hydrogen as a fuel source, in lieu of low-carbon fuels, for certain categories of transportation vehicles.

Increased public concern surrounding the emission of GHGs may result in more international, national or subnational requirements to reduce or mitigate the effects of GHG emissions. Although uncertain, these developments could increase the costs related to the application of our fermentation technology. Additionally, although governmental policies to reduce GHG emissions may continue to incentivize the production of low-carbon fuels and carbon capture, it is also possible that such policies could be altered in a way that may negatively impact our growth, increase our and our industry partners' operating costs, or reduce demand for our technology by prioritizing other technologies or approaches to GHG emission reductions. We cannot predict the manner or extent to which such policy or legislation may affect our industry partners and ultimately harm or help our business or the carbon management industry in general.

Our business could be affected in the future by additional international, national and subnational regulation, pricing of GHG emissions or other climate change legislation, regulation or agreements. It is difficult at this time to estimate the likelihood of passage, or predict the potential impact, of any additional legislation, regulations or agreements. Potential consequences of new obligations could include increased technology, transportation, material, and administrative costs and may require us to make additional investments in our operations. As we continue distributing our technology to our target markets, international, national or subnational government entities may seek to impose regulations or competitors may seek to influence regulations through lobbying efforts.

Any changes in laws or regulations or failure by us or our industry partners to comply with applicable regulatory laws and regulations could have a material adverse effect on our reputation as well as our business, results of operations and financial condition and could substantially hinder our and our partners' ability to manufacture and commercialize products produced using our process technologies.

If scientists, policy makers, and other actors convince governments and corporations to enact policies that disfavor or disincentivize the production of carbon-based fuels and the development and deployment of carbon capture and utilization technology, it could harm our business, results of operations, and financial condition

There are a number of stakeholders and policy makers who believe carbon management technologies will prolong the life of high-carbon emitting sectors and impede the transition to renewable energy sources. Such individuals believe that using the carbon capture and utilization process to produce fuels, such as ethanol, merely defers the emission of CO₂ into the atmosphere and that anything that promotes the adoption of low-carbon fuels and advanced liquid fuels (other than hydrogen produced via electrolysis) will result in "locking in" a carbon economy from which the world should be moving away. These stakeholders and policy makers advocate for the adoption of regulations and incentives that would reduce or eliminate reliance on carbon-based fuels in favor of the adoption of electricity and hydrogen as fuel sources.

If stakeholders and policy makers are successful in convincing governments and corporations to enact policies that disfavor, or changes in government administrations result in shifts in policy that disincentivize, the production

of carbon-based fuels and the development and deployment of carbon management technology, it could negatively impact the demand for products produced using our process technologies and our ability to maintain and develop relationships with our strategic partners, which would harm our business, results of operations and financial condition. The viability of our business model also could be impacted if, over time, popular, government and corporate support continues to gravitate away from the use of carbon-based fuels toward the predominant use of electricity and hydrogen as fuel sources.

We and our industry partners use hazardous materials and must comply with applicable environmental, health and safety laws and regulations. Any claims relating to improper handling, storage or disposal of these materials or noncompliance with applicable laws and regulations could be time consuming and costly and could adversely affect our business and results of operations.

We and our industry partners use hazardous chemicals and biological materials and are subject to a variety of international, national and subnational laws and regulations governing the use, generation, manufacture, storage, handling and disposal of these materials, including RCRA and the Occupational Safety and Health Act of 1970. Although we and our industry partners have implemented safety procedures for handling and disposing of these materials and waste products, we cannot be sure that our safety measures are compliant with legal requirements or adequate to eliminate the risk of accidental injury or contamination. In the event of contamination or injury, we could be held liable for any resulting damages, and any liability could exceed our insurance coverage. There can be no assurance that neither we nor any of our industry partners will not violate environmental, health and safety laws as a result of human error, accident, equipment failure or other causes.

Compliance with applicable environmental, health and safety laws and regulations is expensive and time consuming, and the failure to comply with past, present or future laws or regulations could result in the imposition of fines, third-party property damage, product liability and personal injury claims, investigation and remediation costs, the suspension of production or a cessation of operations. Our liability in such an event may exceed our total assets. Liability under environmental laws can be joint and several and without regard to comparative fault. Environmental laws and regulations could become more stringent over time, imposing greater compliance costs and increasing risks and penalties associated with violations, which could impair our research, development or production efforts and harm our business. Accordingly, violations of present and future environmental laws or regulations by us or any of our industry partners could restrict our ability to develop and commercialize products using our process technologies, build out or expand facilities, or pursue certain technologies, and could require us and our industry partners to acquire equipment or incur potentially significant costs to comply with environmental regulations. In addition, our hazardous materials and environmental laws and regulations-related risks may augment as we expand our international operations, including imposition of laws and regulations impacting our ability to transfer hazardous chemicals and biological materials between countries.

We may be subject to product liability claims, which could result in material expense, diversion of management time and attention and damage to our business, reputation and brand.

The products produced using our process technologies that we and our industry partners commercialize may contain undetected defects or impurities that are not discovered until after the products have been used by customers or incorporated into products for end-users. This could result in claims from customers or others, damage to our business and reputation and brand or significant costs to correct the defect or impurity. Therefore, the sale of products produced using our process technologies entails the risk of product liability claims. Any product liability claim brought against us, regardless of its merit, could result in material expense, diversion of management time and attention, damage to our business, reputation and brand and cause us to fail to retain existing industry partners or to fail to attract new industry partners.

Ethical, legal and social concerns about genetically engineered products and process technologies that use genetically engineered supplies could limit or prevent the use of products produced using our process technologies and could limit our revenues.

The use of genetically engineered products and process technologies that use genetically engineered supplies is subject to laws and regulations in many countries, including by the EPA under the Toxic Substances Control Act of

1976, some of which are new or still evolving. Public attitudes about the safety and environmental hazards of genetically engineered products and processes, and ethical concerns over genetic research, could influence public acceptance of our technology, processes and products produced using our process technologies that use genetically engineered supplies.

Our ability to develop and commercialize one or more of our technologies or process technologies could be limited by additional factors, including:

- public attitudes regarding, and potential changes to laws governing, ownership of genetic material, which could harm our intellectual property rights with respect to our genetic material and discourage others from supporting, developing or commercializing products produced using our process technologies; and
- governmental reaction to negative publicity concerning genetically engineered organisms, which could result in greater government regulation of genetic research, greater government regulation of genetic-related feedstock sources, or other adverse governmental regulatory restrictions.

The subject of genetically engineered organisms has received negative publicity, which has aroused public debate. This adverse publicity could lead to greater regulation and trade restrictions on imports of genetically engineered products. These trends could result in increased expenses, delays or other impediments to our programs or the public acceptance and commercialization of the products produced using our process technologies.

Our genetically engineered microbes may be subject to regulatory scrutiny and may face future development and regulatory difficulties. Additionally, failure to obtain import permits in a timely fashion for all relevant microbes in jurisdictions with our industry partners could adversely affect our business and continuity of operations.

Some of our genetically engineered microbes may have significantly altered characteristics compared to those found in the wild and may be subject to regulatory scrutiny. As a result, we may be required to implement additional costly measures to obtain and maintain our regulatory permits, licenses, authorizations and approvals. To the extent such regulatory scrutiny or changes impact our ability to execute on existing or new programs for our industry partners, or make doing so more costly or difficult, our business, financial condition, or results of operations may be adversely affected.

Because the use of genetically engineered products and process technologies that use genetically engineered supplies is subject to laws and regulations in many countries, some of which are new or still evolving, regulatory requirements, including those related to import permits, may continue to change in various jurisdictions. If such regulatory requirements prevent us from obtaining import permits for jurisdictions where we have industry partners, such changes may impact our ability to execute on existing or new programs for our industry partners, or make doing so more costly or difficult, which may adversely affect our business, financial condition, results of operations, market share and prospects.

The requirements of being a public company may strain our resources and divert management's attention, and the legal, accounting and compliance expenses that result from being a public company may be greater than we anticipate.

We have and will continue to incur significant legal, accounting and other expenses that we did not incur as a private company prior to the Business Combination. We are subject to the reporting requirements of the Exchange Act, and we are also required to comply with the applicable requirements of the Sarbanes-Oxley Act and the Dodd-Frank Wall Street Reform and Consumer Protection Act, as well as the rules and regulations subsequently implemented by the SEC and the listing standards of Nasdaq, including changes in corporate governance practices and the establishment and maintenance of effective disclosure and financial controls. Compliance with these rules and regulations is burdensome. Our management and other personnel have recently devoted and will continue to devote a substantial amount of time to these compliance initiatives. Moreover, these rules and regulations increase our historical legal and financial compliance costs and make some activities more time-consuming and costly. For example, these rules and regulations may make it more difficult and more expensive for us to obtain director and officer liability insurance than we obtained as a private company, and could also make it more difficult for us to attract and retain qualified members of our Board.

Our management's time spent dealing with the increasingly complex laws pertaining to public companies could result in less time being devoted to our management and growth, causing a disadvantage. In particular, we have incurred significant expenses and have devoted substantial management effort toward ensuring compliance with the requirements of Section 404 of the Sarbanes-Oxley Act. We hired additional accounting and financial staff, and engaged outside consultants, all with appropriate public company experience and technical accounting knowledge and maintained an internal audit function, which have increased our operating expenses. It is possible that we will be required to expand our employee base and hire additional employees to support our operations as a public company, which will increase our operating costs in future periods. Moreover, we could incur additional compensation costs if we determine that adjustments to our cash compensation structure are necessary to remain competitive with other public companies, which would increase our general and administrative expenses and could materially and adversely affect our profitability.

If we experience a significant disruption in our information technology systems, including security breaches, or if we fail to implement new systems and software successfully, our business operations and financial condition could be adversely affected.

We depend on information technology systems to, among other functions, control our manufacturing processes, process orders and invoices, collect and make payments, interact with industry partners and suppliers, manage inventory and otherwise conduct our business. We also depend on these systems to respond to inquiries, contribute to our overall internal control processes, maintain records of our property, plant and equipment and record and pay amounts due to vendors and other creditors. The failure of our information technology systems or of information technology systems maintained by third parties to perform as we anticipate could disrupt our business and could result in transaction errors, processing inefficiencies and the loss of sales and industry partners. As we implement planned upgrades or changes to systems, we may also experience interruptions in service, loss of data or reduced functionality and other unforeseen material issues which could adversely impact our ability to provide quotes, take orders and otherwise run our business in a timely manner. In addition, if our new systems fail to provide accurate and increased visibility into pricing and cost structures, it may be difficult to improve or maximize our profit margins. As a result, our results of operations could be adversely affected.

In addition, cyber-attacks or security breaches could compromise our trade secrets or other confidential, business critical information, cause a disruption in our operations, or harm our reputation. Our information technology systems are subject to potential disruptions, including significant network or power outages, service disruptions or interruptions from third-party information technology service providers, software or hardware errors, cyberattacks, computer viruses, malware, ransomware events, other malicious codes and/or unauthorized access attempts, denial-of-service attacks, phishing schemes, fraud, or other disruptive problems, any of which, if successful, could result in data leaks or otherwise compromise our confidential or proprietary information and disrupt our operations. Despite our efforts to protect sensitive information and comply with and implement data security measures, there can be no assurance that any controls and procedures that we have in place will be sufficient to protect us. Further, as cyber threats are continually evolving, our controls and procedures may become inadequate and we may be required to devote additional resources to modify or enhance our systems in the future. We may also be required to expend resources to monitor for and remediate cyber-related incidents or to enhance and strengthen our cyber security, including by deployment of additional personnel and technical protection measures, further training of employees, changing vendor control and monitoring practices, and engaging third-party experts and consultants. Any such disruptions to our information technology systems, breaches or compromises of data, or misappropriation of information could result in violations of privacy and other laws, litigation, fines, negative publicity, lost sales or business delays, any of which could have a material adverse effect on our business, financial condition or results of operations.

International sales by us and our industry partners expose us and our industry partners to the risk of fluctuation in currency exchange rates, rates of foreign inflation and trade restrictions, which could adversely affect our results of operations.

Because we and our industry partners commercialize and sell products produced using our process technologies outside of the United States, a portion of our and our industry partners' revenues is generated outside of the United States and we derive some of our revenues from our industry partners in their local currencies. As a result, our

revenues and results of operations are subject to foreign exchange fluctuations, which we may not be able to manage successfully. We bear the risk that the rate of inflation in the foreign countries where we and our industry partners incur costs and expenses or the decline in value of the U.S. dollar compared to those foreign currencies, will increase our costs as expressed in U.S. dollars. The prices of the products produced using our process technologies may not be adjusted to offset the effects of inflation on our or our industry partners' cost structure, which could increase costs and reduce net operating margins. If we do not successfully manage these risks through hedging or other mechanisms, our revenues and results of operations could be adversely affected.

Changes in interest rates and capital availability and other market factors may impact investment and financing decisions by our industry partners, which could adversely affect our results of operations.

We depend on partnering, licensing, and contractual relationships with our industry partners that implement our process technologies, as well as investments by such partners, as a significant source of financing. Changes in credit and capital market conditions, including changes in interest rates and capital availability, may increase the cost of financing for our industry partners, which may limit their ability or willingness to enter into partnering agreements with us or to further invest in their facilities that implement our process technologies. Such changes may also make it more difficult for us to obtain favorable terms for any future partnership arrangements. To the extent that these changes impact investment and financing decisions by our industry partners in a manner that is adverse to us, such changes could adversely affect our results of operations.

Causes of supply chain challenges could result in delays or increased costs for us and our partners deploying our technologies.

The products that we and our partners produce using our process technologies must be delivered to our industry partners and involve a variety of inputs which must be procured and delivered to our facilities. Our suppliers, sub-contractors and industry partners have been disrupted by certain issues, including worker absenteeism, quarantines, restrictions on employees' ability to work, office and factory closures, disruptions to ports and other shipping infrastructure, border closures or other travel or health-related restrictions. Supply chain disruptions may also occur from time to time due to a range of factors beyond our control, including, but not limited to, trade restrictions, including tariffs, climate change, increased costs of labor, freight costs and raw material prices along with a shortage of qualified workers. Such issues may cause delays in the delivery of, or increases in the cost of, the inputs used in our process technologies, potentially resulting in delays or increased costs for us and our partners deploying our technologies or for our industry partners purchasing our products, which may materially impact our business, financial condition and results of operations.

Our ability to use our net operating loss carryforwards and certain other tax attributes may be limited.

We have incurred losses during our history. To the extent that we continue to generate taxable losses, unused losses will carry forward to offset future taxable income, if any, until such unused losses expire, if at all. As of December 31, 2024, we had approximately \$376.5 million in U.S. federal net operating loss carryovers to offset future taxable income.

Under the Tax Act (as defined below), as modified by the CARES Act (as defined below), U.S. federal NOL carryforwards generated in taxable periods beginning after December 31, 2017, may be carried forward indefinitely, but the deductibility of such net operating loss carryforwards in taxable years beginning after December 31, 2020, is limited to 80% of taxable income. It is uncertain if and to what extent various states will conform to the Tax Act or the CARES Act.

In addition, our NOL carryforwards are subject to review and possible adjustment by the IRS, and state tax authorities. Under Sections 382 and 383 of the Code, our federal net operating loss carryforwards and other tax attributes may become subject to an annual limitation in the event of certain cumulative changes in the ownership of our stock. An "ownership change" pursuant to Section 382 of the Code generally occurs if one or more stockholders or groups of stockholders who own at least 5% of a company's stock increase their ownership (as measured by value) by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Our ability to utilize our NOL carryforwards and other tax attributes to offset future taxable income or tax liabilities may be limited as a result of ownership changes, including potential changes in connection with our migration from

New Zealand to the United States, the Business Combination or other transactions. Similar rules may apply under state tax laws. We have not yet determined the amount of the cumulative change in our ownership resulting from the Business Combination or other transactions, or any resulting limitations on our ability to utilize our net operating loss carryforwards and other tax attributes. If we earn taxable income, such limitations could result in increased future income tax liability to us and our future cash flows could be adversely affected. We have recorded a valuation allowance related to our NOL carryforwards and other deferred tax assets due to the uncertainty of the ultimate realization of the future benefits of those assets.

Political and economic uncertainty, including the imposition of tariffs, changes in policies of the Chinese government or in relations between China and the United States, may impact our revenue and materially and adversely affect our business, financial condition, and results of operations.

We and our partners operate facilities and do business on an international scale, including in China. Political and economic uncertainty, including the imposition of tariffs, changes in policies of the Chinese government or relations between China and the United States, may impact us adversely. There is significant uncertainty about the future relationship between China and the United States with respect to trade policy, government relations and treaties. Political uncertainty surrounding Chinese government policies, international trade disputes between China and the United States, and protectionist measures have resulted in increased trade controls and regulations, including tariffs. Heightened tensions resulting in restrictions and additional regulations may negatively impact our ability to send our microbes and other supplies to our plants in China, to purchase and ship ethanol out of China, or to gain ethanol-related licenses in China.

The implementation of sanctions on certain Chinese individuals or entities may result in complications for our interactions with LanzaTech China Limited, the Shougang Joint Venture and our joint venture partners in China, or with certain of our strategic investors located in China, including Sinopec. Sinopec is a Chinese investment platform that was jointly established in 2018 by China Petrochemical Corporation (“Sinopec Group”) and China Petroleum & Chemical Corporation (“Sinopec Corp”). Sinopec Corp is a majority-owned subsidiary of Sinopec Group, which is controlled by the State-owned Assets Supervision and Administration Commission of the State Council of the People’s Republic of China. As a result of potential trade and investment restrictions, we may be unable to complete an investment in any joint venture that we may enter into with Sinopec, or to protect our interests in our existing or potential future joint ventures by nominating a non-Chinese director to the board of directors of any such joint venture. Sanctions also may negatively impact our ability to repatriate dividends from a Chinese joint venture and may result in further costs or delays as a result of currency controls. These increased costs and restrictions may reduce our margins or reduce demand for our products if prices increase for our industry partners, and could adversely affect our business, financial condition, and results of operations.

Our ability or the ability of our partners to operate in China may be impaired by changes in Chinese laws and regulations, including those relating to taxation, environmental regulation, restrictions on foreign investment, and other matters, which can change quickly with little advance notice.

While we are headquartered in Skokie, Illinois, we are a global business and have operations in China. This includes a minority ownership stake in the Shougang Joint Venture, several strategic investors located in China, including Sinopec, and a core team of technical, business and administrative professionals at a LanzaTech office in Shanghai, which support the ongoing operations and further growth of the business in China. We license our technology in China to the Shougang Joint Venture. Entities in which the Shougang Joint Venture holds a controlling interest currently produce low carbon ethanol at four commercial scale facilities using our process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products.

The Chinese government has exercised and continues to exercise substantial control over every sector of the Chinese economy through regulation and state ownership. The central Chinese government or local governments having jurisdiction within China may impose new, stricter regulations, or interpretations of existing regulations, that would require additional expenditures and efforts on our part to ensure our compliance with such regulations or interpretations. For example, regulations in China applicable to LanzaTech China Limited, a WFOE, may change. As such, our operations and the operations of our joint venture partners and our sales and licenses to partners located in China may be subject to governmental and regulatory interference in the provinces in which they operate. We, our

joint venture and other partners could also be subject to regulation by various political and regulatory entities, including local and municipal agencies and other governmental subdivisions. Regulations may be imposed or change quickly with little advance notice. Our ability, and the ability of our joint venture and other partners, to operate in China may be impaired by any such laws or regulations, or any changes in laws and regulations in China. We and our joint venture and other partners may incur increased costs necessary to comply with existing and future laws and regulations or penalties for any failure to comply.

Our operations and financial results may be impacted if the Chinese government determines that the contractual arrangements constituting part of the Shougang Joint Venture VIE structure do not comply with Chinese regulations, or if these regulations change or are interpreted differently in the future.

We have business operations in China, several strategic investors located in China, including Sinopec, and a core team of technical, business and administrative professionals at a LanzaTech office in Shanghai, which support the ongoing operations and further growth of the business in China. We also hold a minority ownership stake in the Shougang Joint Venture. We have determined the Shougang Joint Venture to be a Variable Interest Entity (“VIE”) for which we are not the primary beneficiary. The VIE structure was implemented in order to effectuate the intellectual property licensing arrangement between us and the Shougang Joint Venture and is not used to provide investors with exposure to foreign investment in China-based companies where Chinese law prohibits direct foreign investment in the operating companies. If the Chinese government determines that the contractual arrangements constituting part of the VIE structure do not comply with Chinese regulations, or if these regulations change or are interpreted differently in the future, it could result in a material change to our operations. This could result in our inability to assert contractual control over our intellectual property and other assets in the Shougang Joint Venture, or cause a material change in the value of the shares of our common stock.

We and our partners may be subject to regulatory actions by the Chinese government targeting concerns related to data security and monopolistic behavior.

Recent statements and regulatory actions by the Chinese government have targeted companies whose operations involves cross-border data security or anti-monopoly concerns. Although we are incorporated and headquartered in the United States, we may still be subject to certain Chinese laws due to our business operations in China. These operations include several strategic investors located in China, including Sinopec, a core team of technical, business and administrative professionals at our office in Shanghai, and our minority ownership stake in, and contractual commitments with, the Shougang Joint Venture.

On June 10, 2021, China promulgated the PRC Data Security Law (the “DSL”), which became effective on September 1, 2021. The DSL intends to regulate data processing activities, ensure data security, promote data development and utilization, protect the data-related rights and interests of individuals and organizations, and safeguard Chinese sovereignty, security and development interests. Article 36 of the DSL provides that any Chinese entity that provides data to foreign judicial or law enforcement agencies (regardless of whether directly or through a foreign entity) without approval from a Chinese authority would likely be deemed to be in violation of the DSL. In addition, pursuant to Article 2 of Measures for Cybersecurity Reviews (the “Measures”) issued by the Cyberspace Administration of China (“CAC”), the procurement of any network product or service by an operator of critical information infrastructure that affects or may affect national security will be subjected to a cybersecurity review. Furthermore, pursuant to Article 35 of Cybersecurity Law of the PRC, “critical information infrastructure operators” that purchase network products and services which may influence national security will be subject to cybersecurity review by the CAC. With respect to LanzaTech China Limited, the Shougang Joint Venture and our operational partners in China, the exact scope of the term “critical information infrastructure operator” remains unclear, so there can be no assurance that we, the Shougang Joint Venture or our partners will not be subjected to critical information infrastructure operator review in the future. Furthermore, in the event that we, the Shougang Joint Venture or our partners become operators of critical information infrastructure in the future, they may be subject to the DSL, the Measures and cybersecurity review by the CAC.

Article 3 of Anti-Monopoly Law of the PRC (the “Anti-Monopoly Law”) prohibits “monopolistic practices,” which include: (a) the conclusion of monopoly agreements between operators; (b) the abuse of dominant market position by operators; and (c) concentration of undertakings which has or may have the effect of eliminating or

restricting market competition. Furthermore, according to Article 19 of the Anti-Monopoly Law, the operator will be assumed to have a dominant market position if the following apply: (a) an operator has 50% or higher market share in a relevant market; (b) two operators have 66% or higher market share in a relevant market; or (c) three operators have 75% or higher market share in a relevant market. We believe that neither we nor any of our partners in China have engaged in any monopolistic practices in China, and that recent statements and regulatory actions by the Chinese government do not impact our ability to conduct business, accept foreign investments, or list on a U.S. or other foreign stock exchange. However, there can be no assurance that regulators in China will not promulgate new laws and regulations or adopt new series of interpretations or regulatory actions which may require us and our partners to satisfy new requirements related to these concerns.

Changes in China's economic, political or social conditions or legal system or government policies could have a material adverse effect on our business and operations.

Our business operations in China include the Shougang Joint Venture, several strategic investors located in China, including Sinopec, and a core team of technical, business and administrative professionals at a LanzaTech office in Shanghai, which support the ongoing operations and further growth of the business in China. We license our technology in China to the Shougang Joint Venture. Entities in which the Shougang Joint Venture holds a controlling interest currently produce low carbon ethanol at four commercial scale facilities using our process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products. Meanwhile, several additional facilities are being engineered and constructed. Accordingly, our business, financial condition, results of operations and prospects may be influenced to a significant degree by political, economic and social conditions in China generally and by the significant discretion of Chinese governmental authorities. The Chinese government continues to play a significant role in regulating industry development by imposing industrial policies. The Chinese government also exercises significant control over China's economic growth through allocating resources, controlling regulating payment of foreign currency-denominated obligations, setting monetary policy, and providing preferential treatment to particular industries or companies. The increased global focus on environmental and social issues and China's potential adoption of more stringent standards in these areas may adversely impact us or our suppliers.

Furthermore, the Chinese legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all and may have a retroactive effect. As a result, we or our suppliers may not be aware of our violation of any of these policies and rules until sometime after the alleged violation. In addition, any administrative and court proceedings in China may be protracted, resulting in substantial costs and diversion of resources and management attention. Further, such evolving laws and regulations and the inconsistent enforcement thereof could also lead to failure to obtain or maintain licenses and permits to do business in China, which would adversely affect us or our suppliers in China. Any such disruption, or if one or more of our Chinese suppliers was prevented from operating, could have an adverse impact on our results of operations and financial condition.

We may be subject to risks that the Chinese government may intervene or influence our operations at any time.

Because we have employees located in China and conduct some operations in China, including through our China-based joint venture and at the facilities in China operated by entities in which the Shougang Joint Venture holds a controlling interest using our process technology, we are subject to the risk that the Chinese government may intervene or influence our operations at any time. However, because our operations in China are largely limited to technology licenses and the production of our low carbon ethanol, we do not expect that such intervention or influence would result in a material change in our operations. Nonetheless, in the event that the Chinese government were to intervene in our operations, we might experience a disruption at the four facilities in China operated by entities in which the Shougang Joint Venture holds a controlling interest using our process technology, or at the facilities in construction, to our joint venture and joint venture partners, to our licenses to partners in China and to our low carbon ethanol production, which could have a material adverse effect on our results of operations.

Products produced by our process technologies compete with or are intended to displace comparable products produced using fossil resources. The market prices for these alternatively produced products and commodities are subject to volatility and there is a limited referenceable market for the more sustainable, waste-based products that our process technologies enable.

Products produced by our process technologies compete with or are intended to displace comparable products produced using fossil resources. The market prices for these alternatively produced products and commodities are subject to volatility and may depend on uncertain consumer demand as well as changing supply of feedstocks. In particular, demand for our products may depend on changing attitudes toward, and the price and availability of, fossil resources.

We do not believe we have any direct competitors that produce products with similar attributes to ours. Due to the limited competition we face, there is a limited referenceable market for the more sustainable, waste-based products that our process technologies enable. It may be difficult to evaluate our potential future performance without the benefit of established long-term track records from companies developing similar sustainable, waste-based products.

Process performance at our partners' plants is dependent on the quality and quantity of the feedstock supplied from the host facility.

We design the parameters to best process the feedstock we expect to receive from the host facility. Although we rigorously test feedgas when a project is being designed in order to determine the expected composition of the feedstock there is no guarantee that the quality and quantity of the feedstock will be identical to the test conditions. Feedstock changes based on day-to-day variability in host company process conditions can be anticipated to some extent, but cannot be fully mitigated.

We have experienced variability in the quality and quantity of feedstock supplied from our operating facilities, and although it is typically in the facilities' best interest to provide consistent and good quality feedstock, which help maintain the high utilization of our process, there is no guarantee that it will be supplied.

The deployment of the technology for alternative waste gas feedstocks can lead to unforeseen issues due to the change in the upstream industrial process.

While we have designed our reactor and process to minimize the amount of mechanical and operational adjustments required for the utilization of different waste gas feedstocks, there is no guarantee that performance will be as expected. Our microbe has proven to be flexible to different feed gas compositions, with tests conducted at pilot-scale using a wide range of CO₂, hydrogen ("H₂") and carbon monoxide ("CO")-containing gases.

Scale-up and commercialization of process technologies for alternative feedstocks without first conducting tests at demonstration scale can introduce some risk. Performance related improvements may not be as fungible as anticipated in scaling up alternative feedstocks.

We are subject to litigation and adverse outcomes in such litigation could have a material adverse effect on our financial condition.

We are, and from time to time may become, subject to litigation and various legal proceedings. The defense of these actions is time consuming and expensive. We evaluate these litigation claims and legal proceedings to assess the likelihood of unfavorable outcomes and to estimate, if possible, the amount of potential losses. Based on these assessments and estimates, we may establish reserves and/or disclose the relevant litigation claims or legal proceedings, as and when required or appropriate. These assessments and estimates are based on information available to management at the time of such assessment or estimation and involve a significant amount of judgment. As a result, actual outcomes or losses could differ materially from those envisioned by our current assessments and estimates. Our failure to successfully defend or settle any of these litigations or legal proceedings could result in liability that, to the extent not covered by our insurance, could have a material adverse effect on our business, financial condition and results of operations.

See Part I, “Item 3—Legal Proceedings” and *Note 17, Commitments and Contingencies*, to the audited consolidated financial statements included in “Item 8—Financial Statements and Supplementary Data.”

Risks Related to Our Intellectual Property

Our patent rights may not provide commercially meaningful protection against competition, and we may be unable to detect infringement of our patents.

Our success depends, in part, on our ability to obtain and maintain patent protection and other intellectual property rights to protect our technology from competition. We have adopted a strategy of seeking patents and patent licenses in the United States and in certain foreign countries with respect to certain technologies used in, or relating to, our process technology for developing products. As of December 31, 2024, our overall owned and in-licensed patent portfolio included 1,193 granted patents and 515 pending patent applications across 130 patent families in the United States and in various foreign jurisdictions.

The strength of patents involves complex legal and scientific questions and can be uncertain. The patent applications that we own or license may fail to result in issued patents in the United States or in other foreign countries. Even with regard to the patents that have been issued to us, it is possible that third parties could challenge the validity, enforceability, ownership or scope thereof, which could result in such patents being narrowed, invalidated or held unenforceable. A substantial amount of litigation involving patent and other intellectual property rights exists in the world today, including interference and reexamination proceedings before the U.S. Patent and Trademark Office, or oppositions or comparable proceedings in foreign jurisdictions. Furthermore, even if they are unchallenged, our patents and patent applications may not adequately protect our technology or prevent others from designing around our patent claims. In addition, patent laws may change over time, and such changes may impair our ability to maintain, protect or enforce our patents. Moreover, we may not be able to detect unauthorized use of, or take appropriate steps to enforce, our patents rights against third parties. For example, third parties could practice our inventions without authorization, in secret and in territories where we do not have patent protection.

Furthermore, despite our efforts and precautions, we may be unable to prevent a third party from copying or otherwise obtaining and using our inventions or other proprietary information or technology without authorization, or from infringing our patents. Such third parties may then try to sell or import products made using our inventions in and into the United States or other territories. We may be unable to prove that such products were made using our inventions, and any legal and contractual remedies available to us may not adequately compensate us.

Additional uncertainty may result from patent reform legislation proposed by the U.S. Congress and other national governments and from legal precedent handed down by the U.S. Court of Appeals for the Federal Circuit, the U.S. Supreme Court and the courts of foreign countries, as they determine legal issues concerning the scope, validity and construction of patent claims. Because patent applications in the United States and many foreign jurisdictions are typically not published until 18 months after filing, or in some cases not at all, and because publication of discoveries in the scientific literature often lags behind the actual discoveries, there is additional uncertainty as to validity of any issued patent. Accordingly, we cannot be certain that any of our patent applications will result in issued patents, or even if issued, be sure of their validity or enforceability. Additionally we cannot predict whether any of our patent rights will be broad enough in scope to provide commercial advantage and prevent circumvention. Also, it may be difficult for us to trace chemicals imported into the United States that are produced by others using microorganisms or processes covered by our patents without our authorization, which will limit our ability to enforce our patent rights against potential infringers. In any event, patents are enforceable only for a limited term.

Differences and uncertainties with respect to legal systems outside the United States could adversely affect the legal protection available to us.

We have and plan to continue partnering with others in building manufacturing facilities using our process technologies in countries other than the United States. However, the laws of some foreign countries do not protect

intellectual property rights to the same extent as federal and state laws in the United States. Many companies have encountered significant problems, including delays, in protecting and enforcing intellectual property rights in certain foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to bio-industrial technologies. This could make it difficult for us to stop the misappropriation of our trade secrets or the infringement of our patents or other intellectual property rights. Proceedings to enforce our patents and other proprietary rights in foreign jurisdictions could result in substantial costs and divert our efforts and attention from other aspects of our business. Such proceedings could also be met with defenses, counterclaims and countersuits attacking the validity, enforceability, ownership and scope of our intellectual property rights, and if such defenses, counterclaims or countersuits are successful, we could lose valuable intellectual property rights in certain jurisdictions. Accordingly, our efforts to enforce our intellectual property rights in such countries could be inadequate to obtain a significant commercial advantage from the intellectual property that we develop. Moreover, the registration of intellectual property is costly and subject to complex rules, regulations and local laws. Outside the United States, we only file our patent applications in selected foreign jurisdictions and therefore will have no patent protection against potential infringers in jurisdictions where we have not applied for patent protection.

We may not be able to operate our business without infringing the proprietary rights of third parties.

Our ability and the ability of our partners to commercialize the products produced using our technology platform depends on the ability to develop, manufacture, market and sell such products without infringing the proprietary rights of third parties. Numerous U.S. and foreign patents and pending patent applications owned by third parties, including parties with whom we may compete, exist in fields including processes that relate to our technology platform and the processes derived using our technology platform. These third parties may allege that our technology platform or the processes derived using our technology platform, or even the methods and organisms themselves, infringe their intellectual property rights, and we may be subject to legal proceedings relating to these claims.

If we are found to infringe the intellectual property rights of a third party, we or our partners could be prohibited from commercializing the product produced using the infringing technology, or from licensing our technology, unless we obtain a license to use the technology covered by the third-party intellectual property rights or are able to design around the relevant third party intellectual property rights. We may be unable to obtain a license on terms acceptable to us, if at all, and we may not be able to redesign our technology or processes to avoid infringement. Even if we are able to redesign technology or processes to avoid an infringement claim, our efforts to design around the third-party intellectual property rights may lead to a less effective or more costly product. In addition, we may be subject to legal proceedings alleging the infringement, misappropriation or other violation of the intellectual property of third parties, which could result in substantial costs and divert our efforts and attention from other aspects of our business. A court could also order us to pay compensatory damages for any infringement, plus prejudgment interest and could, in addition, treble the compensatory damages and award attorney fees. These damages could be substantial and could harm our reputation, business, financial condition and results of operations. A court also could enter orders that temporarily, preliminarily or permanently prohibit us and our partners from making, using, selling or offering to sell one or more of the products that may be produced using our technology platform and processes, or could enter an order mandating that we undertake certain remedial activities.

Trade secrets can be difficult to protect and enforce, and our inability to do so could adversely affect our competitive position.

We rely on trade secrets and confidentiality agreements to protect some of our technology and proprietary know-how that is not patentable, processes for which patents are difficult to enforce, and any other elements of our technology platform that involve proprietary know-how, information or technology that is not covered by patents, particularly where we do not believe patent protection is appropriate or obtainable. However, trade secrets are difficult to maintain and protect. Our strategy for scale-up of production requires us to share confidential information with our business partners and other parties. Our business partners' employees, consultants, contractors or scientific and other advisors may unintentionally or willfully disclose our proprietary information to competitors. Enforcement of claims that a third party has illegally obtained and is using trade secrets is an expensive, time-consuming and uncertain process. In addition, foreign courts are sometimes less willing than U.S. courts to protect

trade secrets. If our competitors independently develop equivalent knowledge, methods and know-how, we would not be able to assert our trade secrets against them. Our failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We have taken measures to protect our trade secrets and proprietary information, but these measures may not be effective. We require new employees and consultants to execute confidentiality agreements upon the commencement of an employment or consulting arrangement with us. These agreements generally require that all confidential information developed by the individual or made known to the individual by us during the course of the individual's relationship with us be kept confidential and not disclosed to third parties. Nevertheless, our proprietary information may be disclosed, third parties could reverse engineer our systems, and others may independently develop substantially equivalent proprietary information and techniques or otherwise gain access to our trade secrets. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights, and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

If trade secrets are stolen, misappropriated or reverse engineered, others could use these designs to produce competing products.

A number of third parties, including various industry partners, plant operators, university scientists and researchers, and those involved in the shipping and handling of products produced using our technology platform, have or may have access in the future to our proprietary technology. If the proprietary technology covered by our trade secrets were stolen, misappropriated or reverse engineered based on unauthorized use or based on extrapolation from our disclosures in our patent applications, it could be used by other parties for their own commercial gain. If this were to occur, it could be difficult, time consuming and costly for us to discover or challenge this type of use, especially in countries with limited intellectual property protection.

If we are unable to prevent third parties from adopting, registering or using trademarks or otherwise violating our trademark rights, our business could be materially adversely affected.

We currently hold issued trademark registrations and have trademark applications pending, any of which may be the subject of a governmental or third-party objection, which could prevent the issuance or maintenance of the same and thus create the potential need to rebrand or relabel one or more of our services. As our business matures, our reliance on our trademarks to differentiate us from our competitors increases and as a result, if we are unable to prevent third parties from adopting, registering or using trademarks, trade dress, or other source indicators that infringe, dilute or otherwise violate our trademark rights, our business could be materially adversely affected.

We may not retain exclusive rights to intellectual property created as a result of our strategic partnering arrangements which could limit our prospects and result in costly and time-consuming disputes.

We are a party to joint development agreements with a number of parties and are seeking to enter into agreements with others, each of which involve research and development efforts. We expect to enter into additional strategic partnering arrangements in the future. Under our existing agreements, we share, and would share, to various degrees, intellectual property we jointly develop. Any disputes as to ownership with a partner that may arise could encumber or prevent our use of the disputed technology, could harm our relationship with the relevant partner and would likely negatively affect our commercialization plans with respect to that technology. Additionally, litigation may be necessary to resolve disputes as to the ownership of intellectual property rights as between us and our industry partners, which can be costly, distracting to management and can harm our reputation and the value of our Company. Further, we may not be successful in defending our intellectual property rights in any such litigation, and if we are unsuccessful, the value of our Company could be seriously harmed.

Some of our intellectual property may be subject to federal regulation such as "march-in" rights, reporting requirements and a preference for U.S. industry, and any such regulations could negatively impact our business and prospects.

Some of the intellectual property that protects our technology platform has been funded by grants from U.S. government agencies and is subject to certain federal regulations. For example, under the "march-in" provisions of

the Bayh-Dole Act, the government may have the right under limited circumstances to require us to grant exclusive, partially exclusive or non-exclusive rights to third parties under any intellectual property discovered through the government-funded programs. March-in rights can be triggered if the government determines that we have failed to work sufficiently towards achieving practical application of a technology or if action is necessary to alleviate health or safety needs, to meet requirements for public use specified by federal regulations or to give preference to U.S. industry. Under the Bayh-Dole Act, we are required to disclose each subject invention to the federal funding agency within two months after the inventor discloses it to us. We must also elect to retain title to the invention within two years of disclosure to the government. If we fail to meet these and other reporting and timing requirements, we could lose title to inventions that were developed with government funding. Additionally, if we fail to file patent applications on time, fail to establish that government funding was used in developing the invention, or fail to disclose the invention to the funding agency, we could lose rights to these inventions. We are also subject to certain reporting requirements as well as a preference for U.S. industry relating to manufacturing of products under the Bayh-Dole Act. Specifically, certain of our granted and pending patents that cover recombinant and other microorganisms, cell-free protein synthesis platforms, protein expression vectors, fermentative production pathways, and microbial and ethanol conversion pathways may be subject to Bayh-Dole requirements and/or march-in-rights. These patents account for less than one percent of our granted and pending patents. Any such regulations could negatively impact our business and prospects.

We depend on certain technologies that are licensed to us. We do not control these technologies and any loss of our rights to them could prevent us from developing or selling our process technologies.

We rely on licenses in order to be able to use various proprietary technologies that are material to our business, including a license with the Battelle Memorial Institute (“Battelle”). We do not own the patents that underlie these licenses. Our rights to use the technology we license are subject to the continuation of and compliance with the terms of those licenses. We do not always control the prosecution, maintenance or filing of the patents to which we hold licenses. Thus, some of these patents and patent applications were not written by us or our attorneys, and we did not have control over their drafting and prosecution. Our licensors might not have given the same attention to the drafting and prosecution of these patents and applications as we would have if we had been the owners of the patents and applications and had control over the drafting and prosecution. We cannot be certain that drafting or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights.

Our rights to use the technology we license are subject to the validity of the owners’ intellectual property rights. Enforcement of our licensed patents or defense or any claims asserting the invalidity of these patents is often subject to the control or cooperation of our licensors and/or interpretation of the license agreements. We cannot be certain that we will have control of the enforcement of these patents against third parties. Legal action could be initiated against the owners of the intellectual property that we license. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent our licensors from continuing to license the intellectual property that we may need to operate our business.

Certain of our licenses contain provisions that allow the licensor to terminate the license upon specific conditions, including breach or insolvency. Our rights under the licenses are subject to our continued compliance with the terms of the license, including the payment of royalties due under the license. Termination of these licenses could prevent us from developing or marketing some or all of our process technologies. Because of the complexity of our technologies underlying our process technologies and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If such an attempt were successful, we might be barred from developing and selling some or all of our process technologies.

Any strategic partnering arrangement that involves the licensing of any of our intellectual property may increase our risks, harm our competitive position and increase our costs.

In addition to partnering with industry leaders through our co-development model, we may enter into licensing arrangements aimed to accelerate commercialization of our production process pipeline. Licensing any of our intellectual property increases the number of people who have access to some of our proprietary information. The scope of any such license may not be sufficiently narrow to adequately protect our interests. Moreover, contractual obligations of our licensees not to disclose or misuse our intellectual property may not be sufficient to prevent such disclosure or misuse. The costs of enforcing contractual rights could substantially increase our operating costs and may not be cost-effective, reasonable under the circumstances or ultimately succeed in protecting our proprietary rights. If our competitors access our intellectual property, they may gain further insight into the technology and design of our process technologies, which would harm our competitive position.

We may be involved in lawsuits to protect or enforce our patents or the patents of our licensors, or lawsuits asserted by a third party, which could be expensive, time consuming and unsuccessful.

Competitors may infringe our patents or the patents of our licensors. To counter infringement or unauthorized use, we may need to file infringement claims, which can be expensive and time-consuming. In addition, in an infringement proceeding, a court may decide that a patent of ours or our licensors is not valid or is unenforceable, or may refuse to stop the other party from using the technology at issue on the grounds that our patents do not cover the technology in question. An adverse result in any litigation or defense proceedings could put one or more of our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Interference proceedings provoked by third parties or brought by the U.S. Patent and Trademark Office may be necessary to determine the priority of inventions with respect to our patents or patent applications or those of our collaborators or licensors. An unfavorable outcome could require us to cease using the related technology or to attempt to license rights to it from the prevailing party. Our business could be harmed if the prevailing party does not offer us a license on commercially reasonable terms. Litigation or interference proceedings may fail and, even if successful, may result in substantial costs and distract our management and other employees. We may not be able to prevent, alone or with our licensors, misappropriation of our proprietary rights, particularly in countries where the laws may not protect those rights as fully as in the United States.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, there could be public announcements of the results of hearings, motions or other interim proceedings or developments.

Because of the uncertainties involved in the issuance and enforcement of patents, and the value of a patent, patent disputes and litigations are common. We may become involved in patent disputes relating to infringement of our technology, with third-parties asserting their patents, with our licensors or licensees, with industry partners and with employees, among others. Patent disputes can take years to resolve, can be very costly and can result in loss of rights, injunctions and substantial penalties. Moreover, patent disputes and related proceedings can distract management's attention and interfere with running the business.

Risks Related to Ownership of Our Securities

See also “—Risks Related to our Business and Industry—There is Substantial Doubt about our Ability to Continue As Going Concern” above.

The price of our securities may be volatile.

Fluctuations in the price of our securities could contribute to the loss of all or part of your investment. The trading price of our securities may be volatile and subject to wide fluctuations in response to various factors, some of which are beyond our control. Any of the factors listed below could have a material adverse effect on your investment in our securities and our securities may trade at prices significantly below the price you paid for them. In

such circumstances, the trading price of our securities may not recover and may experience a further decline. Factors affecting the trading price of our securities may include:

- our ability to execute on our business initiatives;
- actual or anticipated fluctuations in our quarterly financial results or the quarterly financial results of companies perceived to be similar to us;
- changes in the market's expectations about our operating results, liquidity and our ability to continue as a going concern;
- the development of new plants;
- success of competitors;
- operating results failing to meet the expectations of securities analysts or investors in a particular period;
- entering into new agreements with partners;
- changes in financial estimates and recommendations by securities analysts concerning LanzaTech or the industry in which we operates in general;
- operating and stock price performance of other companies that investors deem comparable to LanzaTech;
- ability to market new and enhanced products and services on a timely basis;
- media and consumer sentiment towards our mission and business operations;
- changes in laws and regulations affecting our business;
- commencement of, or involvement in, litigation involving LanzaTech;
- changes in LanzaTech's capital structure, such as future issuances of securities or the incurrence of additional debt;
- the volume of shares of common stock available for public sale;
- our ability to maintain listing requirements;
- any major change in our Board or management;
- sales of substantial amounts of common stock by our directors, executive officers or significant stockholders or the perception that such sales could occur; and
- general economic and political conditions such as tariffs, recessions, interest rates, fuel prices, international currency fluctuations, trade restrictions and acts of war or terrorism.

Broad market and industry factors may materially harm the market price of our securities irrespective of our operating performance. The stock market in general, and Nasdaq specifically, have experienced extreme volatility that has often been unrelated to the operating performance of particular companies. As a result of this volatility, you may not be able to sell your securities at or above the price at which it was acquired. A loss of investor confidence in the market for the stocks of other companies which investors perceive to be similar to LanzaTech could depress our stock price regardless of our business, prospects, financial conditions or results of operations. A decline in the market price of our securities also could adversely affect our ability to issue additional securities and our ability to obtain financing in the future.

There can be no assurance that we will be able to comply with the continued listing standards of Nasdaq, and if we fail to maintain compliance with the continued listing requirements of Nasdaq, our common stock could be delisted, negatively impacting its price, liquidity, and our ability to access the capital markets.

Our common stock is listed on the Nasdaq Stock Market LLC (“Nasdaq”) under the symbol LNZA. For continued listing on Nasdaq, we must maintain a minimum bid price of \$1.00 for a period of 30 consecutive business days, as set forth in Nasdaq Listing Rule 5550(a)(2) (the “Minimum Bid Price Requirement”). On March 13, 2025 we received written notice from the Nasdaq Listing Qualifications Department notifying us that for the last 30 consecutive business days, the closing bid price for our common stock had been below the \$1.00 per share minimum closing bid price requirement for continued listing on Nasdaq, as set forth in the Minimum Bid Price Requirement. Pursuant to Nasdaq Listing Rule 5810(c)(3)(A), we will have 180 calendar days from receipt of such notice, or until September 9, 2025 (the “First Compliance Date”), to regain compliance with the Minimum Bid Price Requirement. To regain compliance, the closing bid price of our common stock must meet or exceed \$1.00 per share for a minimum of ten consecutive business days during this 180-day period. If at any time before the First Compliance Date, the bid price of our common stock closes at or above \$1.00 per share for a minimum of ten consecutive business days, subject to the discretion of the Nasdaq Listing Qualification Staff. Nasdaq will provide us with written confirmation of compliance with the Minimum Bid Price Requirement and the matter will be closed. In the event we do not regain compliance with the Minimum Bid Price Requirement by the First Compliance Date, we may be eligible for an additional 180-calendar day compliance period. To qualify, we would be required to meet the continued listing requirement for market value of publicly held shares and all other initial listing standards for the Nasdaq Capital Market, with the exception of the Minimum Bid Price Requirement, and would need to provide written notice of our intention to cure the bid price deficiency during the second compliance period. If it appears to the Nasdaq staff that we will not be able to cure the deficiency or if we are otherwise not eligible or fail to regain compliance during the second compliance period, Nasdaq will provide written notification to us that our common stock is subject to delisting. At that time, we may appeal any such delisting determination to a Nasdaq hearings panel (the “Panel”). If we receive such a delisting notice, Nasdaq may not grant our request for a hearing, or if Nasdaq grants our request for a hearing, the Panel may not grant our request for continued listing of our common stock on The Nasdaq Capital Market pending compliance with all applicable listing criteria, including the Minimum Bid Price Requirement, or we may be unable to timely satisfy the terms of any extension that may be granted by the Panel.

We will continue to monitor the closing bid price of our common stock and will consider our available options to resolve the deficiency and regain compliance with the Minimum Bid Price Requirement within the allotted compliance periods. There can be no assurance that we will regain compliance with the Minimum Bid Price Requirement, be successful in any appeal we may undertake, or be able to maintain compliance with any of the other continued listing requirements of the Nasdaq Capital Market.

If Nasdaq delists our securities for failing to meet these requirements, we and our stockholders could face significant negative consequences, including:

- decreased ability to obtain financing for the continuation of our operations.
- limited availability of market quotations for our securities.
- a determination that our common stock is “penny stock,” requiring brokers to adhere to more stringent rules, possibly reducing trading activity in the secondary market.
- a limited amount of analyst coverage, if any.
- decreased liquidity of our common stock.

Delisting from Nasdaq could also result in other negative consequences, such as the potential loss of confidence by suppliers, customers, and employees, the loss of institutional investor interest, and fewer business development opportunities.

A substantial portion of our total outstanding shares may be sold into the market at any time. This could cause the market price of our common stock to drop significantly, even if our business is doing well.

The market price of our common stock could decline as a result of sales of a large number of shares of our common stock or the perception that such sales could occur. These sales, or the possibility that these sales may

occur, also might make it more difficult for us to sell equity securities in the future at a time and price that we deem appropriate.

Reports published by analysts, including projections in those reports that differ from our actual results, could adversely affect the price and trading volume of our common stock.

Securities research analysts establish and publish their own periodic projections for the business of LanzaTech. These projections may vary widely and may not accurately predict the results we actually achieve. Our stock price may decline if our actual results do not match the projections of these securities research analysts. Similarly, if one or more of the analysts who write reports on LanzaTech downgrades our stock or publishes inaccurate or unfavorable research about our business, our stock price could decline. If one or more of these analysts ceases coverage of LanzaTech or fails to publish reports on LanzaTech regularly, our stock price or trading volume could decline.

We may issue additional shares of common stock or other equity securities without your approval, which would dilute your ownership interests and may depress the market price of our common stock.

As of December 31, 2024, we had warrants (including the AM Warrant and warrants issued pursuant to the Forward Purchase Agreement (the “FPA Warrants”) outstanding to purchase up to an aggregate of 16,657,686 shares of common stock, options (including the Options) outstanding to purchase up to an aggregate of 18,658,807 shares of common stock, 7,767,910 unvested RSUs outstanding and a \$40.2 million Convertible Note, excluding payment-in-kind interest from the issue date, convertible into shares of common stock in accordance with its terms (see Part II, “Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Sources and Uses of Capital”). Additionally, under the LanzaTech 2023 Long-Term Incentive Plan (the “2023 Plan”), we also have the ability to issue 13,987,734 shares of our common stock. The 2023 Plan is required to provide for the ability to grant and recycle our common stock (including any shares subject to forfeited options or restricted stock awards), and to initially reserve a number of shares of our common stock constituting 10% of the total number of shares of our common stock outstanding on a fully diluted basis, as determined at the closing of the Business Combination, and include an “evergreen” provision pursuant to which the number of shares reserved for issuance under the 2023 Plan will be increased automatically each year by 3% of the aggregate number of shares of our common stock then outstanding on a fully diluted basis. We may also issue additional shares of common stock or other equity securities of equal or senior rank in the future in connection with, among other things, future acquisitions or repayment of outstanding indebtedness, without stockholder approval, in a number of circumstances.

Our issuance of additional shares of common stock or other equity securities of equal or senior rank would have the following effects:

- our existing stockholders’ proportionate ownership interest in LanzaTech will decrease;
- the amount of cash available per share, including for payment of dividends in the future, may decrease;
- the relative voting strength of each previously outstanding share of common stock may be diminished; and
- the market price of shares of our common stock may decline.

Because we do not anticipate paying any cash dividends on our common stock in the foreseeable future, capital appreciation, if any, will be your sole source of gains and you may never receive a return on your investment.

We may retain future earnings, if any, for future operations, expansion and debt repayment and have no current plans to pay any cash dividends for the foreseeable future. Any decision to declare and pay dividends as a public company in the future will be made at the discretion of the Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that the Board may deem relevant. In addition, our ability to pay dividends may be limited by covenants of any existing and future outstanding indebtedness we or our subsidiaries incur. As a result, you may not receive any return on an investment in our securities unless you sell your securities for a price greater than that which you paid for it.

The Public Warrants are identical to the Private Placement Warrants in material terms and provisions, except in certain circumstances, and are materially different from the LanzaTech warrants.

The Public Warrants are identical to the Private Placement Warrants in material terms and provisions, except that the Private Placement Warrants are not transferable, assignable or salable until 30 days after the closing of the Business Combination (except in limited circumstances) and are not redeemable by us so long as they are held by the Sponsor or its permitted transferees. If the Private Placement Warrants are held by holders other than the Sponsor or its permitted transferees, they will be redeemable by us and exercisable by the holders on the same basis as the Public Warrants. The Sponsor agreed not to transfer, assign or sell any of the Private Placement Warrants until 30 days after the closing of the business combination.

We may redeem the Public Warrants prior to their exercise at a time that is disadvantageous to holders of Public Warrants. We have the ability to redeem outstanding Public Warrants at any time after they become exercisable and prior to their expiration, at a price of \$0.01 per Public Warrant, provided that the closing price of our common stock equals or exceeds \$18.00 per share (as adjusted for adjustments to the number of shares issuable upon exercise or the exercise price of a warrant) for any 20 trading days within a 30 trading day period commencing once the Public Warrants become exercisable and ending three days before we send the notice of redemption to Public Warrant holders. If and when the Public Warrants become redeemable by us, we may exercise the redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws. As a result, we may redeem the warrants as set forth above even if the holders are otherwise unable to exercise the warrants. Redemption of the outstanding Public Warrants could force holders of the Public Warrants (i) to exercise their Public Warrants and pay the exercise price therefor at a time when it may be disadvantageous for them to do so, (ii) to sell their Public Warrants at the then-current market price when they might otherwise wish to hold their Public Warrants or (iii) to accept the nominal redemption price which, at the time the outstanding Public Warrants are called for redemption, is likely to be substantially less than the market value of their Public Warrants. As noted above, none of the Private Placement Warrants will be redeemable by us so long as they are held by the Sponsor or its permitted transferees.

The terms of the Legacy LanzaTech warrants that were converted into New LanzaTech warrants at the closing of the Business Combination are materially different from those of the Public Warrants. The AM Warrant entitles its holder to purchase up to 300,000 shares of common stock at an exercise price equal to \$10.00, and will expire on the fifth anniversary of the consummation of the Business Combination. The FPA Warrants entitle the holders to purchase up to 4,083,486 shares of common stock at an exercise price equal to \$10.00 per share, subject to adjustment, and will expire on March 27, 2028.

On January 23, 2025, the Company issued 1,652,178 shares of common stock pursuant to a cashless exercise of all 2,010,000 FPA Warrants held by Vellar at a \$0.30 per share exercise price.

You may only be able to exercise your Public Warrants on a “cashless basis” under certain circumstances, and if you do so, you will receive fewer shares of our common stock from such exercise than if you were to exercise such warrants for cash.

The Warrant Agreement provides that in the following circumstances holders of warrants who seek to exercise their Public Warrants will not be permitted to do so for cash and will, instead, be required to do so on a cashless basis in accordance with Section 3(a)(9) of the Securities Act: (i) if the shares of common stock issuable upon exercise of the warrants are not registered under the Securities Act in accordance with the terms of the Warrant Agreement or if the registration statement under which the warrants are registered is suspended; (ii) if we have so elected and the shares of common stock is at the time of any exercise of a warrant not listed on a national securities exchange such that they satisfy the definition of “covered securities” under Section 18(b)(1) of the Securities Act; and (iii) if we have so elected and we call the Public Warrants for redemption. If you exercise your Public Warrants on a cashless basis, you would pay the warrant exercise price by surrendering the warrants for that number of shares of common stock equal to the quotient obtained by dividing (x) the product of the number of shares of common stock underlying the warrants, multiplied by the excess of the “fair market value” of our shares of common stock (as defined in the next sentence) over the exercise price of the warrants by (y) the fair market value. The “fair market value” is the average closing price of the shares of our common stock for the 10 trading days ending on the third

trading day prior to the date on which the notice of exercise is received by the warrant agent or on which the notice of redemption is sent to the holders of warrants, as applicable. As a result, you would receive fewer shares of our common stock from such exercise than if you were to exercise such warrants for cash.

Our warrant agreement designates the courts of the State of New York or the United States District Court for the Southern District of New York as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by holders of our warrants, which could limit the ability of warrant holders to obtain a favorable judicial forum for disputes with our Company.

Our warrant agreement provides that, subject to applicable law, (i) any action, proceeding or claim against us arising out of or relating in any way to the Warrant Agreement, including under the Securities Act, will be brought and enforced in the courts of the State of New York or the United States District Court for the Southern District of New York, and (ii) that we irrevocably submit to such jurisdiction, which jurisdiction will be the exclusive forum for any such action, proceeding or claim. We will waive any objection to such exclusive jurisdiction and that such courts represent an inconvenient forum.

Notwithstanding the foregoing, these provisions of the Warrant Agreement will not apply to suits brought to enforce any liability or duty created by the Exchange Act or any other claim for which the federal district courts of the United States of America are the sole and exclusive forum. Any person or entity purchasing or otherwise acquiring any interest in any of our warrants will be deemed to have notice of and to have consented to the forum provisions in our Warrant Agreement. If any action, the subject matter of which is within the scope the forum provisions of the Warrant Agreement, is filed in a court other than a court of the State of New York or the United States District Court for the Southern District of New York (a “foreign action”) in the name of any holder of our warrants, such holder will be deemed to have consented to: (x) the personal jurisdiction of the state and federal courts located in the State of New York in connection with any action brought in any such court to enforce the forum provisions (an “enforcement action”), and (y) having service of process made upon such warrant holder in any such enforcement action by service upon such warrant holder’s counsel in the foreign action as agent for such warrant holder.

This choice-of-forum provision may limit a warrant holder’s ability to bring a claim in a judicial forum that it finds favorable for disputes with our Company, which may discourage such lawsuits against us and our directors, officers, or other employees and may result in increased litigation costs for our stockholders. Alternatively, if a court were to find this provision of the Warrant Agreement inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could materially and adversely affect our business, financial condition and results of operations and result in a diversion of the time and resources of our management and Board.

We may amend the terms of the Public Warrants in a manner that may be adverse to holders with the approval by the holders of at least 50% of the then-outstanding Public Warrants. As a result, the exercise price of a holder’s Public Warrants could be increased, the exercise period could be shortened and the number of shares of our common stock purchasable upon exercise of a Public Warrant could be decreased, all without the approval of that warrant holder.

Our Public Warrants were issued in registered form under the Warrant Agreement between Continental Stock Transfer & Trust Company, as warrant agent, and us. The Warrant Agreement provides that the terms of the Public Warrants may be amended without the consent of any holder to cure any ambiguity or correct any defective provision, but requires the approval by the holders of at least 50% of the then-outstanding Public Warrants to make any change that adversely affects the interests of the registered holders. Accordingly, we may amend the terms of the Public Warrants in a manner adverse to a holder if holders of at least 50% of the then-outstanding Public Warrants approve of such amendment. Although our ability to amend the terms of the Public Warrants with the consent of at least 50% of the then-outstanding Public Warrants is unlimited, examples of such amendments could be amendments to, among other things, increase the exercise price of the Public Warrants, convert the Public Warrants into cash or stock, shorten the exercise period or decrease the number of shares of common stock purchasable upon exercise of a Public Warrant.

We and Legacy LanzaTech have identified material weaknesses in our internal control over financial reporting. While some of these material weaknesses have been remediated, they could continue to adversely affect our ability to report our results of operations and financial condition accurately and in a timely manner.

Our management is responsible for establishing and maintaining adequate internal control over financial reporting designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Our management is likewise required, on a quarterly basis, to evaluate the effectiveness of our internal controls and to disclose any changes and material weaknesses identified through such evaluation of those internal controls. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

During 2023, we restated our condensed consolidated financial statements as of and for the quarters ended March 31, 2023 and June 30, 2023. In connection with this restatement, we concluded that the failure of our internal controls designed to ensure appropriate accounting for complex technical arrangements like the forward purchase agreement is representative of a material weakness in our internal control over financial reporting. Our management also concluded that our internal control over financial reporting as of December 31, 2023 was not effective due to material weaknesses related to controls over the accounting for complex transactions and estimates requiring significant judgment as well as controls over revenue recognition. Additionally, our management concluded that, as a result of the material weaknesses in our internal control over financial reporting, our disclosure controls and procedures were ineffective as of December 31, 2023. Management has concluded that these material weaknesses had not been remediated and that our disclosure controls and procedures were not effective as of December 31, 2024. Refer to Item 9A. Controls and Procedures for further information.

Legacy LanzaTech has also identified material weaknesses in its internal control over financial reporting. During 2022, Legacy LanzaTech restated its previously issued 2020 and 2021 financial statements. The restatement resulted from certain material weaknesses. For additional information on the restatement, see Note 2 — *Summary of Significant Accounting Policies* to Legacy LanzaTech's 2020 and 2021 restated financial statements. LanzaTech has not sufficiently designed, documented and implemented formal accounting policies, processes, and controls at the entity level or over the process of the accounting for complex transactions under GAAP.

It is possible that we may identify other material weaknesses in the future. Our management has expended, and will continue to expend, a substantial amount of effort and resources for the improvement of our internal control over financial reporting. While we have processes to properly identify and evaluate the appropriate accounting technical pronouncements and other literature for all significant or unusual transactions, we have expanded and will continue to improve these processes to ensure that the nuances of such transactions are effectively evaluated.

We can give no assurance that any measures we take, will remediate the deficiencies in internal control or that additional material weaknesses or significant deficiencies in internal control over financial reporting will not be identified in the future. Failure to implement and maintain effective internal control over financial reporting could result in material misstatements of our consolidated financial statements that may require us in the future to restate our financial statements or cause us to fail to meet our periodic reporting obligations, and could result in litigation or other disputes. As a result, we could be subject to sanctions or investigations by Nasdaq, the SEC or other regulatory authorities. Failure to timely file will cause us to be ineligible to utilize short form registration statements on Form S-3 or Form S-4, which may impair our ability to obtain capital in a timely fashion to execute our business strategies or issue shares to effect an acquisition. In either case, there could result a material adverse effect on our business. The existence of material weaknesses or significant deficiencies in internal control over financial reporting could adversely affect our reputation or investor perceptions of LanzaTech, which could have a negative effect on the trading price of our common stock. In addition, we would incur additional costs to remediate material weaknesses in our internal control over financial reporting.

Delaware law and provisions in our certificate of incorporation and bylaws could make a takeover proposal more difficult.

Our organizational documents are governed by Delaware law. Certain provisions of Delaware law and of our certificate of incorporation and bylaws could discourage, delay, defer or prevent a merger, tender offer, proxy contest or other change of control transaction that a stockholder might consider in its best interest, including those attempts that might result in a premium over the market price for the shares of our common stock held by our stockholders. These provisions include the ability of the Board to designate the terms of and issue new series of preference shares, supermajority voting requirements to amend certain provisions of our certificate of incorporation, the classification of the Board, and a prohibition on stockholder actions by written consent, which may make more difficult the removal of management and may discourage transactions that otherwise could involve payment of a premium over prevailing market prices for our securities.

These anti-takeover provisions as well as certain other provisions of Delaware law could make it more difficult for a third party to acquire us, even if the third party's offer may be considered beneficial by many of our stockholders. As a result, our stockholders may be limited in their ability to obtain a premium for their shares. If prospective takeovers are not consummated for any reason, we may experience negative reactions from the financial markets, including negative impacts on the price of our common stock. These provisions could also discourage proxy contests and make it more difficult for stockholders to elect directors of their choosing and to cause us to take other corporate actions that our stockholders desire.

Our certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings and the federal district courts as the sole and exclusive forum for other types of actions and proceedings, in each case, that may be initiated by our stockholders, which could limit our stockholders' ability to obtain what such stockholders believe to be a favorable judicial forum for disputes with the Company or our directors, officers or other employees or increase our stockholders' costs in bringing such a claim.

Our certificate of incorporation provides that, unless we consents to the selection of an alternative forum, the Court of Chancery of the State of Delaware will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of LanzaTech; (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or employee of LanzaTech to LanzaTech or its stockholders; (iii) any action asserting a claim against LanzaTech or any director, officer or employee arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws; or (iv) any action asserting a claim against LanzaTech or any director, officer or employee of LanzaTech governed by the internal affairs doctrine, and, if brought outside of Delaware, the stockholder bringing the suit will be deemed to have consented to (A) the personal jurisdiction of the state and federal courts within Delaware and (B) service of process on such stockholder's counsel. The provision described in the immediately preceding sentence will not apply to (i) suits brought to enforce a duty or liability created by the Exchange Act or any other claim for which the federal courts have exclusive jurisdiction and (ii) any complaint asserting a cause of action arising under the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder, for which the federal courts will be the exclusive forum. Any person or entity purchasing or otherwise acquiring an interest in any shares of our capital stock will be deemed to have notice of and to have consented to the forum provisions in our certificate of incorporation. These choice-of-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum that he, she or it believes to be favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers, or other employees and may result in increased litigation costs for our stockholders. We note that there is uncertainty as to whether a court would enforce these provisions and that investors cannot waive compliance with the federal securities laws and the rules and regulations thereunder. Section 22 of the Securities Act creates concurrent jurisdiction for state and federal courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

Alternatively, if a court were to find these provisions of our certificate of incorporation inapplicable or unenforceable with respect to one or more of the specified types of actions or proceedings, we may incur additional costs associated with resolving such matters in other jurisdictions, which could materially adversely affect our

business, financial condition and results of operations and result in a diversion of the time and resources of our management and the Board.

We may not have the funds necessary to satisfy our future obligations under the Forward Purchase Agreement (“FPA”).

As discussed in Part II, “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Sources and Use of Capital” of this Annual Report on Form 10-K, pursuant to the FPA, on the FPA Maturity Date the Company is obligated to pay to the Purchasers the Maturity Consideration, which may be paid in cash or in shares, the Share Consideration, and retain the Prepayment Amount (in each case as defined below). 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 the Purchasers). In addition, future debt or other contractual agreements may contain cross-default or cross-acceleration provisions that could be triggered if we defaulted on our obligations to the Purchasers. Any or all of these consequences could have material adverse consequences for us.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Risk Management and Strategy

We have implemented a cybersecurity program for assessing, identifying, and managing cybersecurity risks aligned with the National Institute of Standard and Technology Cybersecurity Framework (NIST CSF) and where appropriate we have integrated these processes into our enterprise risk management framework. We have implemented administrative, technical, and physical safeguards designed to protect our information systems and protect the confidentiality, integrity, and availability of our data. We are continuously working to improve our information technology systems and provide employee awareness training around phishing, malware, and other cyber risks to enhance our levels of protection.

We engage external parties, such as consultants, to enhance our cybersecurity oversight as required. We conduct periodic risk assessments to evaluate our cybersecurity posture, including through annual third-party vulnerability assessment and penetration tests performed by reputable service providers. We conduct risk assessments, as appropriate, on critical third parties who maintain material data or information to help assess and validate the information security capabilities of these third parties. We maintain insurance coverage for cybersecurity insurance as part of our overall insurance portfolio. We also have implemented administrative, technical, and physical safeguards designed to protect our information systems and protect the confidentiality, integrity, and availability of our data.

Governance Related to Cyber Security Risks

The Audit Committee of the Board has oversight of management's efforts with respect to IT systems and cybersecurity. As part of this oversight, our Chief Information Security Officer (“CISO”) shares quarterly updates regarding any changes around our cybersecurity defenses, ongoing IT initiatives, and emerging threats and plans to pro-actively address these threats with the Audit Committee. During these meetings, the CISO provides the Audit Committee updates regarding any changes around our cyber defenses, ongoing IT initiatives, and emerging threats and plans to pro-actively address these threats. Our Board has delegated primary responsibility for the oversight of cybersecurity matters to the Audit Committee; however, the full Board reviews significant cybersecurity matters as appropriate. The Audit Committee provides updates to the Board on a quarterly basis on the activities that the Audit Committee oversees, including Cybersecurity.

Our Chief Information Security Officer is responsible for strengthening and continuously monitoring the effectiveness of our cybersecurity program. The individual currently serving in the role of Chief Information Security Officer has over 30 years of information systems and cybersecurity experience within complex and international business verticals such as technology, financial services, biotech, and other scientific organizations. He also holds the Certified Information Systems Security Professional (CISSP) certification. In addition, our cybersecurity steering committee assists in managing certain technical aspects related to cybersecurity. Our cybersecurity steering committee is informed about and monitors the prevention, detection, mitigation, and remediation of cybersecurity incidents through monthly meetings and frequent communications. Regular members of the steering committee consist of participants from the IT infrastructure, Business Systems, AI and Modelling and Scientific Computing teams. Participants from other teams attend on an as-needed basis.

To date, we have not identified any indication of a cybersecurity incident that would have a material impact on our business and consolidated financial statements. However, as discussed more fully under “Item 1A. Risk Factors”, the sophistication of cyber threats continues to increase and we cannot assure that our systems and processes will be successful, that we will be able to anticipate or detect all cyberattacks or other breaches, that we will be able to react to cyberattacks or other breaches in a timely manner or that our remediation efforts will be successful.

Item 2. Properties

LanzaTech’s global headquarters and R&D center are co-located at the Illinois Science + Technology Park research campus in Skokie, Illinois. This space is held pursuant to a commercial lease with a term through 2036. The facility houses LanzaTech’s state-of-the-art laboratories dedicated to synthetic biology, product synthesis, and analytics. In addition to its R&D center, LanzaTech owns real property known as the LanzaTech Freedom Pines Biorefinery located in Soperton, Georgia which is used for research and development activities. The site includes multiple gas fermentation systems of greater than 100L, emulating commercial designs and supporting laboratory facilities. The Freedom Pines site is also the location of LanzaJet’s ethanol-to-sustainable aviation fuel facility, which is located on property leased by LanzaTech to LanzaJet for the purpose of constructing and operating such facility.

Item 3. Legal Proceedings

The information required with respect to this item is incorporated herein by reference from Item 8. Financial Statements and Supplementary Data—*Note 17 - Commitments and Contingencies* in this Form 10-K.

Item 4. Mine Safety Disclosures

None.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market Information

Our common stock and warrants to purchase our common stock are listed on The Nasdaq Stock Market LLC under the symbols LNZA and LNZAW, respectively.

Holders

As of April 10, 2025, there were 188 holders of record of our common stock and 3 holders of record of our warrants to purchase our common stock. Such numbers do not include beneficial owners holding our securities through nominee names.

Dividends

We have never declared or paid any dividends on shares of common stock. We anticipate that we will retain all of our future earnings, if any, for use in the operation and expansion of our business and do not anticipate paying cash dividends in the foreseeable future. Any decision to declare and pay dividends in the future will be made at the sole discretion of our Board and will depend on, among other things, our results of operations, cash requirements, financial condition, contractual restrictions and other factors that our Board may deem relevant.

Issuer Purchases of Equity Securities

None.

Recent Sales of Unregistered Securities

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

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion and analysis should be read in conjunction with the consolidated financial statements and accompanying footnotes thereto included in Part II, "Item 8-Financial Results and Supplementary Data" of this 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. This discussion contains forward-looking statements that involve risks and uncertainties about our business and operations. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include without limitation those discussed in this Management's Discussion and Analysis of Financial Condition and Results of Operations and those identified in Part I, "Item 1A-Risk Factors" of this Annual Report on Form 10-K.

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 developed the capabilities to produce single cell protein as a primary product from our gas fermentation platform.

LanzaTech 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 augmenting 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 three more plants between 2021 and 2023. With additional partnerships, we established two more commercial plants, one in India, and one in Belgium, respectively, and we currently have other plants in various states of 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 \$137.7 million for the year ended December 31, 2024 and \$134.1 million for the prior year. As of December 31, 2024 we had accumulated deficit of \$969.6 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.

Recent Developments

As previously announced, LanzaTech is focused on shifting its core operations from research and development to globally deploying the Company's proven technology. We are streamlining our priorities to sharpen our business focus and improve our cost structure and evaluating other liquidity enhancing initiatives, including pursuing capital raising, partnership or asset-related opportunities, and other strategic options.

On April 3, 2025, our Board received a preliminary, nonbinding proposal from Carbon Direct Capital to acquire all of the outstanding shares of the Company's common stock for \$0.02 per share (the "Take-Private Proposal"). Carbon Direct Capital is the holder of the Company's outstanding \$40.2 million Convertible Note, excluding payment-in-kind interest from the issue date, which upon conversion, would entitle it to receive shares of common stock representing approximately 14.6% of our common stock based on the total number of shares of common stock of the Company outstanding on April 10, 2025 (see "—Liquidity and Capital Resources—Sources

and Uses of Capital” herein). The Strategic Committee of the Board (the “Strategic Committee”) is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with the Company’s financial advisor and legal counsel. There is no guarantee that the Take-Private Proposal will be accepted by the Strategic Committee or the Board, that definitive documentation relating to any such transaction will be executed, or that a transaction will be consummated in accordance with that documentation, if at all.

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

Key Financial Metrics:

The key elements of LanzaTech’s performance for the years ended December 31, 2024 and December 31, 2023 are summarized in the tables below:

	Years Ended December 31,			
(In thousands, except for percentages)	2024	2023	Variance	% Change
GAAP Measures:				
Revenue.....	\$ 49,592	\$ 62,631	\$ (13,039)	(21)%
Net Loss	(137,731)	(134,098)	(3,633)	3 %
Key Performance Indicators:				
One-Time Revenue ⁽¹⁾	37,868	57,754	(19,886)	(34)%
Recurring Revenue ⁽²⁾	11,724	4,877	6,847	140 %
Total Revenue	49,592	62,631	(13,039)	(21)%
Cost of Revenues (ex. Depreciation) ⁽³⁾	25,970	44,979	(19,009)	(42)%
Selling, general & administrative	49,981	50,438	(457)	(1)%
Adjusted EBITDA ⁽⁴⁾	\$ (88,212)	\$ (80,144)	\$ (8,068)	10 %

(1) One-time revenue includes all other revenue other than licensing and sales of microbes and media

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

(3) 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).

(4) 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 GAAP. Adjusted EBITDA does not represent, and should not be considered, an alternative to net income (loss), as determined in accordance with GAAP. See “Non-GAAP Financial Measures” for additional information and reconciliation of Adjusted EBITDA to net loss, its most directly comparable GAAP measure.

Results of Operations

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

	Years Ended December 31,			
	2024	2023	Variance	% Change
(In thousands, except for per share amounts)				
Total revenue	\$ 49,592	\$ 62,631	\$ (13,039)	(21) %
Cost of revenues (exclusive of depreciation shown below)	25,970	44,979	(19,009)	(42) %
Operating expenses:				
Research and development	77,007	68,142	8,865	13 %
Depreciation expense	5,567	5,452	115	2 %
Selling, general and administrative expense	49,981	50,438	(457)	(1) %
Total operating expenses	\$ 132,555	\$ 124,032	8,523	7 %
Loss from operations	(108,933)	(106,380)	(2,553)	2 %
Other income (expense):				
Interest income, net	3,162	4,572	(1,410)	(31) %
Other expense, net	(17,726)	(29,388)	11,662	(40) %
Total other expense, net	(14,564)	(24,816)	10,252	(41) %
Loss before income taxes	(123,497)	(131,196)	7,699	(6) %
Loss from equity method investees, net	(14,234)	\$ (2,902)	(11,332)	390 %
Net loss	\$ (137,731)	\$ (134,098)	\$ (3,633)	3 %
Other comprehensive loss:				
Changes in credit risk of fair value instruments	(1,096)	—	(1,096)	nm
Foreign currency translation adjustments	124	(376)	500	(133) %
Comprehensive loss	\$ (138,703)	\$ (134,474)	\$ (4,229)	3 %
Net loss per share - basic and diluted	\$ (0.70)	(0.79)		
Weighted-average number of common shares outstanding - basic and diluted	197,579,945	176,023,219		

Revenue

Total revenue decreased \$13.0 million, or 21%, in the year ended December 31, 2024, compared to the prior year. Engineering and other services revenue decreased by \$19.4 million, mainly due to a reduction of \$28.8 million in revenue from projects with existing customers, which includes a decrease of \$19.6 million from three large projects. This decrease in engineering was offset by an increase from existing projects of \$3.2 million and from projects with new customers of \$6.2 million in 2024. The decline in revenue from engineering was offset by an increase in revenue from licensing of \$7.8 million and CarbonSmart sales of \$2.6 million. Revenues from Joint Development Agreements (“JDA”) and other contract research decreased by \$2.2 million and \$1.9 million, respectively.

Cost of Revenues

Cost of revenue decreased \$19.0 million, or 42%, in the year ended December 31, 2024, compared to the prior year, primarily due to the decrease in sales from engineering and other services, with a corresponding decrease in cost of sales of \$19.9 million. Similarly, the decrease in sales of JDAs and other contract research drove a decrease of \$1.2 million and \$0.6 million in cost of sales, respectively. These decreases in cost of sales were offset by an increase related to CarbonSmart sales of \$2.7 million.

Research and Development

R&D expense increased \$8.9 million, or 13%, in the year ended December 31, 2024, compared to the prior year, primarily due to an increase of \$10.5 million in external R&D services related to project development costs that are not currently eligible for capitalization nor tied to revenue agreements. Additionally, there was an increase of \$0.2 million in consumables and facilities expenses, compared to the same period last year. These increases were offset by a decrease of \$1.8 million in personnel and contractors expenses related to R&D projects.

Selling, general and administrative expense

SG&A expense decreased \$0.5 million, or 1%, in the year ended December 31, 2024, compared to the prior year. This was primarily due to a decrease of \$0.2 million in professional fees associated with the Business Combination, a decrease of \$0.2 million in personnel expenses and contractors, and a decrease of \$0.5 million in bad debt expense recorded in the prior year and recovered in the current year. These decreases were offset by an increase of \$0.4 million for facilities and consumable expenses compared to the prior year.

Interest income, net

Interest income, net decreased \$1.4 million in the year ended December 31, 2024 compared to the prior year. 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 \$11.7 million, in the year ended December 31, 2024 compared to the prior year, due to a lower net loss from the change in fair value of our financial instruments in the year ended December 31, 2024, compared to the prior year.

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 December 31, 2024 and December 31, 2023:

(In thousands, except for percentages)	Years Ended December 31,		Variance	% Change
	2024	2023		
Total cash, cash equivalents, and restricted cash	\$ 45,737	\$ 76,284	\$ (30,547)	(40)%

As of December 31, 2024, compared to December 31, 2023, LanzaTech's cash, cash equivalents, and restricted cash decreased by \$30.5 million, or 40%, 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 December 31, 2024, held-to-maturity security investments totaled \$12.4 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.

As of December 31, 2024, our capital structure consisted 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. As of December 31, 2024, LanzaTech's outstanding debt comprised 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 consolidated balance sheets as of December 31, 2024. On February 14, 2025, the Company and Brookfield entered into a loan agreement and terminated the Brookfield SAFE. Refer to *Note 19 - Subsequent Events* in our consolidated financial statements for further information.

On February 3, 2023, LanzaTech, AMCI and ACM ARRT H LLC ("ACM") executed a Forward Purchase Agreement (the "FPA"). 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 shares of common stock (the "Recycled Shares") on the open market for approximately \$10.16 per share (the "Redemption Price"), and the purchase price of approximately \$60.1 million was funded by the use of AMCI trust account proceeds as a partial prepayment (the "Prepayment Amount") for the FPA redemption three 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 Trigger Event") or if the Company is delisted. On any date following the Business Combination, the Purchasers also had 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 would owe the Company an amount equal to the Terminated Shares times the Redemption Price, which could 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.

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. On July 22, 2024, Vellar notified the Company of the satisfaction of a VWAP Trigger Event, purporting to accelerate the FPA Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 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).

On July 24, 2024, LanzaTech filed suit against Vellar, primarily in connection with Vellar's sale of Recycled Shares, which LanzaTech alleges is 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 notified to the Company as part of an early termination, which Vellar did not do. The outcome of the lawsuit is uncertain, and in the event that the Company does not succeed, the Company may not have sufficient funds or be able to obtain financing from third parties to pay amounts related to the lawsuit. See *Note 17 - Commitments and Contingencies* in our consolidated financial statements for further information.

On October 4, 2024, ACM delivered to the Company notice of satisfaction of the VWAP Trigger Event 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 and settled as of December 31, 2024.

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 and subject to certain conditions such as a floor price, 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 Nasdaq (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. As of December 31, 2024, the full capacity of our current ATM equity offering program remained available for issuance.

On August 5, 2024, the Company entered into a Convertible Note Purchase Agreement (the "Convertible Note Purchase Agreement") with Carbon Direct Capital pursuant to which the Company agreed to sell and issue to Carbon Direct Capital 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. On August 6, 2024, we issued and sold \$40.2 million of convertible notes to Carbon Direct Capital pursuant to the Convertible Note Purchase Agreement (the "Convertible Note"). The gross proceeds from the initial closing was approximately \$40 million, before deducting estimated offering expenses.

The Convertible Note bears interest at a fixed rate of 8.00% per annum and 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 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 Note 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 also 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 also convertible at the option of the holders any time prior to the Convertible Note Maturity Date at a conversion price equal to the Valuation Cap of \$1.25 per share. 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 December 31, 2024, no Qualified Equity Financing nor Non-Qualifying Financing events have occurred.

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.

Going Concern

We have recurring net losses and anticipate continuing to incur losses. We had cash and cash equivalents of \$43.5 million, short-term held-to-maturity debt securities of \$12.4 million and an accumulated deficit of \$(969.6) million as of December 31, 2024, along with cash outflows from operations of \$(89.1) million and net loss of \$(137.7) million for the year ended December 31, 2024. We have historically funded our operations through the Business Combination, issuances of equity securities, debt financing, as well as from revenue generating activities with commercial and governmental entities.

In light of the our projected capital expenditures and operating requirements under our current business plan, we are projecting that our existing cash and short-term held-to-maturity debt securities will not be sufficient to fund our operations through the next twelve months from the date of issuance of the consolidated financial statements for the year ended December 31, 2024 included in this Annual Report. These conditions and events raise substantial doubt about the Company’s ability to continue as a going concern.

We are focusing on streamlining our business priorities, taking actions to reduce our cost structure and evaluating other liquidity enhancing initiatives, including pursuing capital raising, partnership or asset-related opportunities, and other strategic options. In accordance with Accounting Standards Update (“ASU”) No. 2014-15, “Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern (Subtopic 205-40),” management has evaluated in aggregate the conditions and events that raise substantial doubt regarding the Company’s ability to continue as a going concern through the next twelve months from the date of issuance of the consolidated financial statements for the year ended December 31, 2024 included in this Annual Report and has determined that the Company’s ability to continue as a going concern is dependent on its ability to execute its business plan, raise significant amounts of additional capital and/or implement other strategic options.

On April 3, 2025, the Board received a preliminary, nonbinding proposal from Carbon Direct to acquire all of the outstanding shares of our common stock for \$0.02 per share (the “Take-Private Proposal”). Carbon Direct Capital is the holder of the Company’s outstanding \$40.2 million Convertible Note, excluding payment-in-kind interest from the issue date, which upon conversion, would entitle it to receive shares of common stock representing approximately 14.6% of our common stock based on the total number of shares of our common stock outstanding on April 10, 2025. The Strategic Committee is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with our financial advisor and legal counsel.

We are actively pursuing the above actions. However, because certain of the actions described above are subject to market and other conditions not within the Company’s control, management has concluded that these plans do not alleviate substantial doubt about our ability to continue as a going concern.

The consolidated financial statements for the year ended December 31, 2024 included in this Annual Report do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty

Cash Flows

The following table provides a summary of our cash flows for the years ended December 31, 2024 and December 31, 2023:

(in thousands)	Years Ended December 31,	
	2024	2023
Net cash used in operating activities	\$ (89,060)	\$ (97,296)
Net cash provided by/(used in) investing activities	28,352	(57,911)
Net cash provided by financing activities	30,213	148,185
Effects of currency translation on cash, cash equivalents and restricted cash	(52)	(404)
Net decrease in cash, cash equivalents and restricted cash	\$ (30,547)	\$ (7,426)

Cash Flows Used in Operating Activities

Cash flows used in operating activities decreased \$8.2 million, or 8%, in the year ended December 31, 2024 compared to the year ended December 31, 2023. The decrease is primarily attributable to the lower net loss, net of non-cash items in the year ended December 31, 2024 compared to the prior year. Additionally, the Company had cash outflows of \$4.7 million related to costs incurred for the Business Combination that were classified as cash flows from operating activities during the year ended December 31, 2023, which did not recur in the current year.

Cash Flows Provided by Investing Activities

In the year ended December 31, 2024, net cash provided by investing activities was \$28.4 million, compared to net cash used by investing activities of \$(57.9) million in the year ended December 31, 2023. The change is primarily driven by the net cash inflows of \$33.6 million from more debt securities maturing in the year ended December 31, 2024.

Cash Flows from Financing Activities

In the year ended December 31, 2024, net cash from financing activities was \$30.2 million, compared to net cash provided by financing activities of \$148.2 million in the year ended December 31, 2023. The cash inflow in the prior year was mainly driven by \$213.4 million in proceeds from the Business Combination and PIPE financing, partially offset by the FPA prepayment amount of \$60.1 million. In the year ended December 31, 2024, the cash inflow was mainly due to \$40.0 million received from the Convertible Note, offset by the settlement of a portion of the FPA for \$(10.0) million.

Off-Balance Sheet Arrangements

As of December 31, 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 Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our consolidated financial statements that have been prepared in accordance with 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 consolidated financial statements if the estimate is complex in nature or requires a high degree of judgment and 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. While our significant accounting policies are more fully described in Note 2 to our consolidated financial statements, we believe that the accounting policies discussed below are critical to understanding our historical and future performance:

Revenue Recognition

We recognize revenue from our contracts with customers in accordance with ASC 606. The Company also has certain partnership agreements that are within the scope of ASC 808 and contracts with governmental entities that are accounted for as grant contributions. We primarily earn revenue from services related to feasibility studies and basic engineering design of commercial plants, joint development, and contract R&D activities to develop novel biocatalysts and related technologies. When accounting for these arrangements, we must develop assumptions that require judgment such as determining the performance obligations in the contract, determining the transaction price for the contract and stand-alone selling price for each performance obligation identified, and measuring progress towards satisfaction of the performance obligations.

The determination of whether goods and services qualify as distinct performance obligations is based on the contract terms and our view of the business. Typically, our goods and services provided under a contract with a customer are viewed as a single performance obligation. Most of our arrangements provide fixed consideration, however, when there are variable consideration elements, we estimate 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, management estimates the stand-alone selling price and apportions the total transaction price to this material right. We regularly reassess our estimates and assumptions and any changes in these estimates are reflected in our revenue from contracts with customers in the period in which they occur.

Most performance obligations on our non-governmental arrangements are recognized over time. We typically use percentage completion when certain revenue recognition requirements are met. We exercise judgment when determining the percentage of completion against the total transaction price initially estimated. For arrangements with government agencies, we measure the satisfaction of performance obligations over time using the input method which requires judgment when selecting the most indicative measure of such performance.

Convertible Note

The Company has elected to measure the Convertible Note using the fair value option under ASC 825. The fair value of the Convertible Note is remeasured at each reporting date using a binomial lattice model. This model incorporates transaction details such as stock price, contractual terms, conversions scenarios, dividend yield, risk-free rate, adjusted equity volatility, credit rating, market credit spread, and estimated yield. We regularly reassess our estimates and assumptions as new information becomes available. Any changes in these estimates are reflected in our financial statements in the period in which they occur. The effective debt yield and volatility involve unobservable inputs classified as Level 3 of the fair value hierarchy. The sensitivity of the fair value calculation to these methods, assumptions, and estimates included could create materially different results under different conditions or using different assumptions.

Brookfield SAFE Valuation

Under the Brookfield SAFE, we agreed to issue to Brookfield the right to certain shares of Legacy LanzaTech's capital stock, in exchange for the payment of \$50.0 million. The Brookfield SAFE was classified as a liability on our consolidated balance sheets as of December 31, 2024 and 2023. The Company elected to record the instrument using the fair value option under ASC 825. The Brookfield SAFE was terminated on February 14, 2025. Refer to Note 19 - Subsequent Events in our consolidated financial statements for further information.

As of December 31, 2024, we expected to present projects to Brookfield to result in the Brookfield SAFE liability being automatically converted into shares at 75% with the remaining portion to be outstanding until maturity. We determined the value of the conversion portion, by evaluating the pipeline of potential Brookfield projects in various stages of development, and determining the likelihood that a sufficient number of projects should meet the criteria for investment prior to maturity of the note. Since the liquidity price was not expected to change during the life of the Brookfield SAFE, the number of shares that Brookfield would receive was fixed.

With respect to the maturity portion, the Brookfield SAFE would not automatically be converted prior to maturity and at maturity, the holder could either convert or receive the remaining principal and interest in cash. To determine the fair value of the maturity portion, we use the Black-Scholes option pricing model. The main key inputs to this model is the strike price which is the stated strike price grown at the compounded interest rate until

maturity, the stock price which is the current value of the shares that Brookfield would receive at conversion, the risk-free rate and the expected volatility.

The sensitivity of the fair value calculation to these methods, assumptions, and estimates included could create materially different results under different conditions or using different assumptions.

Filing Status

LanzaTech's revenue was less than \$100 million for the year ended December 31, 2023, and the market value of its common stock that was held by non-affiliates (i.e. public float) did not exceed \$560 million as of the last business day of the Company's second fiscal quarter in 2024, which resulted in the following changes to LanzaTech's filing status:

- LanzaTech is no longer a large accelerated filer and qualified as a non-accelerated filer as of December 31, 2024.
- LanzaTech qualified as a smaller reporting company as of the last business day of the Company's second fiscal quarter.

LanzaTech uses certain scaled disclosures as permitted for smaller reporting companies in this Form 10-K, including presenting only the two most recent fiscal years of audited financial statements. The use of reduced disclosure obligations in this Form 10-K may also make comparison of LanzaTech's financial statements with other public companies difficult or impossible.

Recently Issued and Adopted Accounting Standards

See Note 2 to our consolidated financial statements for a description of recent accounting pronouncements, including the actual and expected dates of adoption and estimate effects on our consolidated results of operations and financial condition, which is incorporated herein by reference.

Non-GAAP Financial Measures

To supplement our financial statements presented in accordance with 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 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 Annual 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 GAAP and should not be considered in isolation of, or as an alternative to, measures prepared in accordance with 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 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 GAAP:

Reconciliation of Net Loss to Adjusted EBITDA

(In thousands)	Years Ended December 31,	
	2024	2023
Net Loss	\$ (137,731)	\$ (134,098)
Depreciation	5,567	5,452
Interest income, net	(3,162)	(4,572)
Stock-based compensation expense and change in fair value of SAFE and warrant liabilities ⁽¹⁾	(4,679)	728
Change in fair value of the FPA Put Option and Fixed Maturity Consideration liabilities (net of interest accretion reversal)	23,283	44,300
Change in fair value of Convertible Note and related transaction costs	14,276	—
Transaction costs on issuance of FPA	—	451
Loss from equity method investees, net	14,234	2,902
One-time costs related to the Business Combination, initial securities registration and non-recurring regulatory matters ⁽²⁾	—	4,693
Adjusted EBITDA	\$ (88,212)	\$ (80,144)

(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 7A. 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 \$0.1 million and \$0.4 million for the years ended December 31, 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 8. Financial Statements and Supplementary Data

LanzaTech Global, Inc.

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Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of LanzaTech Global, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of LanzaTech Global, Inc. and subsidiaries (the "Company") as of December 31, 2024 and 2023, the related consolidated statements of operations and comprehensive loss, changes in redeemable convertible preferred stock and shareholders' equity (deficit), and cash flows for each of the two years in the period ended December 31, 2024, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2024, in conformity with accounting principles generally accepted in the United States of America.

Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the financial statements, the Company has suffered recurring losses from operations that raise substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 2. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Revenue Recognition – Identification and evaluation of relevant terms and conditions in new or amended contracts with customers and application to such contracts of Accounting Standards Codification (ASC)

Topic 606 – Revenue From Contracts With Customers (ASC 606) - Refer to Notes 2 and 5 to the financial statements

Description of Critical Audit Matter

The Company earns revenue from the sale of a variety of products and services to its customers including feasibility studies, basic engineering and design services, licensing of technologies, joint development and contract research activities, biocatalysts, and CarbonSmart ethanol.

The terms and conditions of the Company's contracts with its customers vary and assessing the accounting impact of the terms and conditions of each individual contract involves a significant amount of complexity and requires a high degree of judgement as contracts may contain provisions unique to each arrangement.

We determined our assessment of the Company's identification and evaluation of relevant contract terms and conditions and application of ASC 606 to new or amended contracts was a critical audit matter because it required significant audit effort and auditor judgment.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the Company's conclusions on the identification and evaluation of relevant contract terms and conditions and the appropriate application of ASC 606 to new or amended contracts with customers included the following, among others:

- We obtained a selection of new or amended contracts with customers and performed the following procedures, among others:
 - Inspected the terms and conditions contained in the contract and supporting documents.
 - For new or amended contracts, assessed the Company's application of ASC 606 by:
 - Evaluating the Company's identification of the performance obligation or obligations in the contract.
 - Evaluating the Company's conclusions regarding the timing of recognizing revenue in accordance with ASC 606.

Brookfield SAFE Liability – Conversion to Equity Assumption– Refer to Notes 2 and 7 to the financial statements

Description of Critical Audit Matter

On October 2, 2022, the Company entered into a framework agreement (the "Brookfield Framework Agreement") and a Simple Agreement for Future Equity (the "Brookfield SAFE Agreement"). Pursuant to the Brookfield Framework Agreement, the Company agreed to present Brookfield, on an exclusive basis, the opportunity to provide equity financing for carbon capture and transformation projects in the Company's development pipeline once those projects meet certain defined investment criteria ("Qualifying Projects").

Pursuant to the Brookfield SAFE Agreement, the Company received \$50 million (the "Initial Purchase Amount") which is repayable in cash, plus interest, on the fifth anniversary of the Brookfield SAFE Agreement. For each \$50 million of aggregate equity funding required for qualifying projects presented to Brookfield, the then-remaining amount of the Initial Purchase Amount will be reduced by \$5 million and converted into LanzaTech shares at \$10.00 per share. Interest on a corresponding amount will be forgiven.

A key input into the valuation of the Brookfield SAFE liability is the assumption regarding the portion of the Initial Purchase Amount that will be converted to equity at \$10.00 per share (and the corresponding portion of accrued

interest that will be forgiven) as a result of presentation of Qualifying Projects to Brookfield. The valuation of the Brookfield SAFE liability is highly sensitive to such assumption and selection of the assumption is subjective and requires a high degree of judgment by management of the Company.

We identified the valuation of the Brookfield SAFE Liability as a critical audit matter because its value is highly sensitive to changes in the assumption regarding the portion of the Initial Purchase Amount that will be converted to equity (and the corresponding portion of accrued interest that will be forgiven). Evaluating this assumption required a high degree of auditor judgment and significant audit effort to evaluate the sufficiency of audit evidence relating to the Company's estimate.

How the Critical Audit Matter Was Addressed in the Audit

We assessed the reasonableness of the Company's conclusions related to the valuation of the Brookfield SAFE liability by performing audit procedures which included the following, among others:

- We inspected the Brookfield Framework Agreement and obtained an understanding of its key terms, including the investment criteria that need to be met for a project to be considered a Qualifying Project.
- We inspected the Company's project development pipeline to assess the nature and quantity of projects that could be developed into Qualifying Projects.
- We made selections of projects from the project development pipeline and made inquiries of management to understand the status of the project relative to meeting the investment criteria and evaluated the reasonableness of the Company's assessment of the probability the selected project will become a Qualifying Project prior to the fifth anniversary of the Brookfield SAFE Agreement.
- We performed a retrospective review on the status of the projects included in the project development pipeline to evaluate for management bias in developing its assumption.

/s/ Deloitte & Touche LLP
Chicago, IL
April 15, 2025

We have served as the Company's auditor since 2021.

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

	December 31,	
	2024	2023
Assets		
Current assets:		
Cash and cash equivalents	\$ 43,499	\$ 75,585
Held-to-maturity investment securities	12,374	45,159
Trade and other receivables, net of allowance	9,456	11,157
Contract assets	18,975	28,238
Other current assets	15,030	12,561
Total current assets	99,334	172,700
Property, plant and equipment, net	22,333	22,823
Right-of-use assets	26,790	18,309
Equity method investment	4,363	7,066
Equity security investment	14,990	14,990
Other non-current assets	6,873	5,736
Total assets	<u>\$ 174,683</u>	<u>\$ 241,624</u>
Liabilities and Shareholders' Equity		
Current liabilities:		
Accounts payable	\$ 5,289	\$ 4,060
Other accrued liabilities	8,876	7,316
Warrants	3,531	7,614
Fixed Maturity Consideration and current FPA Put Option liability	4,123	—
Contract liabilities	6,168	3,198
Accrued salaries and wages	2,302	5,468
Current lease liabilities	158	126
Total current liabilities	30,447	27,782
Non-current lease liabilities	30,619	19,816
Non-current contract liabilities	5,233	8,233
Fixed Maturity Consideration	—	7,228
FPA Put Option liability	30,015	37,523
Brookfield SAFE liability	13,223	25,150
Convertible Note	51,112	—
Other long-term liabilities	587	1,421
Total liabilities	<u>161,236</u>	<u>127,153</u>
Shareholders' Equity		
Common stock, \$0.0001 par value, 600,000,000 and 400,000,000 shares authorized; 194,915,711 and 196,642,451 shares issued and outstanding as of December 31, 2024 and December 31, 2023, respectively	19	19
Additional paid-in capital	981,638	943,960
Accumulated other comprehensive income	1,393	2,364
Accumulated deficit	(969,603)	(831,872)
Total shareholders' equity	<u>\$ 13,447</u>	<u>\$ 114,471</u>
Total liabilities and shareholders' equity	<u>\$ 174,683</u>	<u>\$ 241,624</u>

See the accompanying Notes to the Consolidated Financial Statements.

LANZATECH GLOBAL, INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND
COMPREHENSIVE LOSS

(in thousands, except share and per share data)

	Years Ended December 31,	
	2024	2023
Revenues:		
Contracts with customers and grants	\$ 22,995	\$ 45,953
CarbonSmart product sales	7,943	5,337
Collaborative arrangements	5,573	5,529
Related party transactions	13,081	5,812
Total revenues	49,592	62,631
Costs and operating expenses:		
Contracts with customers and grants ⁽¹⁾	15,341	37,653
CarbonSmart product sales ⁽¹⁾	7,543	4,889
Collaborative arrangements ⁽¹⁾	2,566	2,265
Related party transactions ⁽¹⁾	520	172
Research and development expense	77,007	68,142
Depreciation expense	5,567	5,452
Selling, general and administrative expense	49,981	50,438
Total cost and operating expenses	158,525	169,011
Loss from operations	(108,933)	(106,380)
Other income (expense):		
Interest income, net	3,162	4,572
Other expense, net	(17,726)	(29,388)
Total other expense, net	(14,564)	(24,816)
Loss before income taxes	(123,497)	(131,196)
Income tax expense	—	—
Loss from equity method investees, net	(14,234)	(2,902)
Net loss	<u>\$ (137,731)</u>	<u>\$ (134,098)</u>
Other comprehensive loss:		
Changes in credit risk of fair value instruments	(1,096)	—
Foreign currency translation adjustments	124	(376)
Comprehensive loss	<u>\$ (138,703)</u>	<u>\$ (134,474)</u>
Unpaid cumulative dividends on preferred stock	—	(4,117)
Net loss allocated to common shareholders	<u>\$ (137,731)</u>	<u>\$ (138,215)</u>
Net loss per common share - basic and diluted	\$ (0.70)	\$ (0.79)
Weighted-average number of common shares outstanding - basic and diluted	197,579,945	176,023,219

(1) exclusive of depreciation

See the accompanying Notes to the Consolidated Financial Statements.

LANZATECH GLOBAL, INC.

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

(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	—	—	13,342	—	—	13,342
Net loss	—	—	—	(137,731)	—	(137,731)
Forward Purchase Agreement Settlement	—	—	24,084	—	—	24,084
Issuance of common stock upon exercise of options and vesting of RSUs	1,199,774	—	300	—	—	300
Repurchase of equity instruments	—	—	(48)	—	—	(48)
Treasury Shares	(2,926,514)	—	—	—	—	—
Other comprehensive income, net	—	—	—	—	(1,096)	(1,096)
Foreign currency translation	—	—	—	—	125	125
Balance as of December 31, 2024	194,915,711	\$ 19	\$ 981,638	\$ (969,603)	\$ 1,393	\$ 13,447

See the accompanying Notes to the Consolidated Financial Statements.

LANZATECH GLOBAL, INC.

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

(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	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)
Share-based compensation expense	—	—	—	—	14,957	—	—	14,957
RSA vesting	—	—	2,535,825	—	—	—	—	—
Repurchase of equity instruments	—	—	(771,141)	—	(7,650)	—	—	(7,650)
Net loss	—	—	—	—	—	(134,098)	—	(134,098)
Issuance of common stock upon exercise of options....	—	—	1,661,698	—	2,550	—	—	2,550
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
Forward Purchase Agreement prepayment	—	—	—	—	(60,547)	—	—	(60,547)
Reclassification of warrants to equity	—	—	—	—	4,863	—	—	4,863
Foreign currency translation	—	—	—	—	—	—	(376)	(376)
Balance as of December 31, 2023	—	\$ —	196,642,451	\$ 19	\$ 943,960	\$ (831,872)	\$ 2,364	\$ 114,471

See the accompanying Notes to the Consolidated Financial Statements.

LANZATECH GLOBAL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,	
	2024	2023
Cash Flows From Operating Activities:		
Net loss	\$ (137,731)	\$ (134,098)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation expense	13,208	15,199
Gain on change in fair value of SAFE and warrant liabilities	(17,887)	(14,471)
Loss on change in fair value of the FPA Put Option and the Fixed Maturity Consideration liabilities	23,510	44,300
Loss on change in fair value of Convertible Note	11,894	—
Provisions for losses on trade and other receivables, net of recoveries	961	700
Depreciation of property, plant and equipment	5,592	5,452
Amortization of discount on debt security investment	(854)	(1,301)
Non-cash lease expense	1,713	1,526
Non-cash recognition of licensing revenue	(11,532)	(1,805)
Loss from equity method investees, net	14,234	2,902
Gain from disposal of PPE	(25)	—
Unrealized (Gain)/loss on net foreign exchange	(284)	182
Changes in operating assets and liabilities:		
Accounts receivable, net	557	104
Contract assets	9,162	(10,049)
Accrued interest on debt investment	183	(266)
Other assets	(2,066)	(2,658)
Accounts payable and accrued salaries and wages	(1,790)	(4,991)
Contract liabilities	311	95
Operating lease liabilities	641	(337)
Other liabilities	1,143	2,220
Net cash used in operating activities	(89,060)	(97,296)
Cash Flows From Investing Activities:		
Purchase of property, plant and equipment	(5,312)	(8,553)
Proceeds from disposal of property, plant and equipment	25	—
Purchase of debt securities	(27,083)	(93,858)
Proceeds from maturity of debt securities	60,722	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	28,352	(57,911)
Cash Flows From Financing Activities:		
Proceeds from the Business Combination and PIPE, net of transaction expenses (Note 3)	—	213,381
FPA prepayment	—	(60,096)
Proceeds from exercise of options	300	2,550
Repurchase of equity instruments of the Company	(48)	(7,650)
Settlement of FPA	(10,039)	—
Proceeds from issuance of Convertible Note, net	40,000	—
Net cash provided by financing activities	30,213	148,185
Effects of currency translation on cash, cash equivalents and restricted cash	(52)	(404)
Net decrease in cash, cash equivalents and restricted cash	(30,547)	(7,426)
Cash, cash equivalents and restricted cash at beginning of period	76,284	83,710
Cash, cash equivalents and restricted cash at end of period	\$ 45,737	\$ 76,284

LANZATECH GLOBAL, INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)			
Supplemental disclosure of non-cash investing and financing activities:			
Acquisition of property, plant and equipment under accounts payable	\$	132	\$ 279
Right-of-use asset additions		10,194	12,866
Non-cash partial reversal of FPA upon settlement		24,084	—
Third-party issuance costs for the Convertible Note		3,169	—
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 FPA Warrants to equity	\$	—	\$ 3,063

See the accompanying Notes to the Consolidated Financial Statements.

NOTES TO 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 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 convert 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. The Company has also been developing the capabilities to produce single cell protein as a primary product from its gas fermentation platform.

As of December 31, 2024, licensees of the Company’s technology operated four commercial-scale ethanol plants in China, one plant in Belgium, one in the commissioning phase in India, with others currently in development in various countries.

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 - Forward Purchase Agreement*.

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 consolidated financial statements were prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”) and the rules and regulations of the Securities and Exchange Commission (“SEC”). The 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 the year ended December 31, 2023, LanzaTech had revenues of less than \$100 million and as of the last business day of the Company’s second fiscal quarter in 2024 (the “Measurement Date”), the market value of its common stock that was held by non-affiliates (i.e. public float) was below \$560 million. As a result, LanzaTech qualified as a “smaller reporting company” or “SRC” on the Measurement Date, as defined in Item 10(f)(1) of Regulation S-K. Smaller reporting companies may take advantage of certain reduced disclosure obligations, including, among other things, providing only two years of audited financial statements.

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 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*.

Variable Interest Entity (“VIE”)

The Company makes judgments in determining whether an entity is a VIE and, if so, whether it is the primary beneficiary of the VIE and is thus required to consolidate the entity. A VIE is a legal entity that has a total equity investment that is insufficient to finance its activities without additional subordinated financial support or whose equity investors lack the characteristics of a controlling financial interest. The Company’s variable interest arises from contractual, ownership or other monetary interests in the entity, which changes with fluctuations in the fair value of the entity’s net assets. A VIE is consolidated by its primary beneficiary, the party that has both the power to direct the activities that most significantly impact the VIEs economic performance, and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. The Company consolidates a VIE when the Company is deemed to be the primary beneficiary. The Company assesses whether or not the Company is the primary beneficiary of a VIE on an ongoing basis. If the Company is not deemed to be the primary beneficiary in a VIE, the Company accounts for the investment or other variable interests in a VIE in accordance with applicable GAAP.

The Company holds interests in certain VIEs for which it has been determined the Company is not the primary beneficiary. The Company's variable interests primarily relate to entities in which the Company has a non-controlling equity interest. Although these financial arrangements resulted in holding variable interests in these entities, they do not empower the Company to direct the activities of the VIEs that most significantly impact the VIEs’ economic performance. The Company's interests in the VIEs are, therefore, accounted for under the equity method of accounting or at fair value (including, when applicable, the practicability exception to fair value under ASC 321-10-35). Refer to *Note 6 - Investments*, for further information. The Company is exposed to the VIEs’ losses and other impairment losses up to the carrying value of each investment and any amounts receivable from the VIE, less amounts payable. Refer to *Note 15 - Related Party Transactions*, for further details on the transactions with VIEs.

Going Concern

The accompanying consolidated financial statements of the Company have been prepared in accordance with GAAP and assume 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 has recurring net losses and anticipates continuing to incur losses. The Company had cash and cash equivalents of \$43,499, short-term held-to-maturity debt securities of \$12,374 and accumulated deficit of \$(969,603) as of December 31, 2024, along with cash outflows from operations of \$(89,060) and net loss of \$(137,731) for the year ended December 31, 2024. The Company has historically funded its operations through the Business Combination, issuances of equity securities, debt financing, as well as from revenue generating activities with commercial and governmental entities.

In light of the Company’s projected capital expenditure and operating requirements under its current business plan, the Company is projecting that its existing cash and short-term held-to-maturity debt securities will not be sufficient to fund its operations through the next twelve months from the date of issuance of these consolidated financial statements. These conditions and events raise substantial doubt about the Company’s ability to continue as a going concern.

The Company is focusing on streamlining its business priorities, taking actions to reduce its cost structure and evaluating other liquidity enhancing initiatives, including pursuing capital raising, partnership or asset-related opportunities, and other strategic options. In accordance with Accounting Standards Update (“ASU”) No. 2014-15, “Disclosure of Uncertainties about an Entity’s Ability to Continue as a Going Concern (Subtopic 205-40),” management has evaluated in aggregate the conditions and events that raise substantial doubt regarding the Company’s ability to continue as a going concern through the next twelve months from the date of issuance of these consolidated financial statements and has determined that the Company’s ability to continue as a going concern is dependent on its ability to execute its business plan, raise significant amounts of additional capital and/or implement other strategic options.

On April 3, 2025, the Board of Directors of the Company (the “Board”) received a preliminary, nonbinding proposal from Carbon Direct Capital Management LLC (“Carbon Direct Capital”) to acquire all of the outstanding shares of the Company’s common stock for \$0.02 per share (the “Take-Private Proposal”). Carbon Direct Capital is the holder of the Company’s outstanding \$40,150 Convertible Note, excluding payment-in-kind interest from the issue date, which upon

conversion, would entitle it to receive shares of common stock representing approximately 14.6% of the Company's common stock based on the total number of shares of common stock of the Company outstanding on April 10, 2025. The Strategic Committee of the Board is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with the Company's financial advisor and legal counsel.

The Company is actively pursuing the above actions. However, because certain of the actions described above are subject to market and other conditions not within the Company's control, management has concluded that these plans do not alleviate substantial doubt about the Company's ability to continue as a going concern.

The consolidated financial statements do not include any adjustments related to the recoverability and classification of recorded asset amounts or the amounts and classification of liabilities that might result from the outcome of this uncertainty.

Use of Estimates

The preparation of financial statements in conformity with 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, and Brookfield SAFE obligations, the FPA, the Convertible Note and the Private Placement Warrants.

The Company recognizes revenue over time for certain contracts using the percentage of completion method based on an input measure. 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.

Segment Information

The Company operates as one operating segment as determined in accordance with ASC Topic 280, Segment Reporting. The determination of the Company's reportable segment is based on the fact that its chief operating decision maker (CODM), identified as the Chief Executive Officer ("CEO") reviews financial performance and allocates resources at the consolidated level. See Note 16 - Segment for further details.

Foreign Currencies

The Company's reporting currency is the U.S. Dollar. The Company has certain foreign subsidiaries where the functional currency is the local currency. All of the assets and liabilities of these subsidiaries are translated to U.S. dollars at the exchange rate in effect at the balance sheet date, income and expense accounts are translated at average rates for the period, and shareholders' equity accounts are translated at historical rates. The effects of translating financial statements of foreign operations into the Company's reporting currency are recognized in other comprehensive income.

The Company also has foreign subsidiaries that have a functional currency of the U.S. dollar. Purchases and sales of assets and income and expense items denominated in foreign currencies are remeasured into U.S. dollar amounts on the respective dates of such transactions. Net realized and unrealized foreign currency gains or losses relating to the differences between these recorded amounts and the U.S. dollar equivalent actually received or paid are included within other expense, net in the consolidated statements of operations and comprehensive loss.

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 December 31, 2024 and December 31, 2023, the Company had \$43,499 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 consolidated balance sheets to total cash, cash equivalents and restricted cash in the consolidated statements of cash flows as of December 31, 2024 and December 31, 2023.

	December 31,	
	2024	2023
Cash and cash equivalents	\$ 43,499	\$ 75,585
Restricted cash (presented within Other current assets)	2,238	699
Cash, cash equivalents and restricted cash	<u>\$ 45,737</u>	<u>\$ 76,284</u>

Trade and Other Receivables

Receivables are reported net of allowances for doubtful accounts. The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of customers to make required payments. The Company estimates the allowance for doubtful accounts based on a variety of factors including the length of time receivables are past due, the financial health of customers, unusual macroeconomic conditions, and historical experience. As of December 31, 2024 and December 31, 2023, the Company had a balance for doubtful accounts of \$955 and \$1,751, respectively.

Other Current Assets

Other current assets consist of prepaid expenses, materials and supplies, inventory and other assets. Material and supplies consist of spare parts and consumables used for research and research equipment and is stated at the weighted average cost. Inventory consists of CarbonSmart products and biocatalysts to be sold to biorefining customers.

Property, Plant and Equipment, net

Property, plant and equipment are stated at cost and include improvements that significantly increase capacities or extend the useful lives of existing plant and equipment. Depreciation is calculated using the straight-line method over the estimated useful life of the assets. Useful lives range from three to five years for instruments and equipment, three to five years for office equipment and furniture and software, five years for vehicles and, for leasehold improvements, the shorter of the life of the improvement or the remaining term of the lease.

The Company reviews the remaining useful life of its assets on a regular basis to determine whether changes have taken place that would suggest that a change to depreciation policies is warranted.

Upon retirement or disposal of property, plant and equipment, the cost and related accumulated depreciation are removed from the account, and the resulting gains or losses, if any, are recorded in the consolidated statements of operations and comprehensive loss. Net gains or losses related to asset dispositions are recognized in earnings in the period in which dispositions occur. Routine maintenance, repairs and replacements are expensed as incurred.

Leases

The Company determines if an arrangement is a lease at inception. Lease agreements under which the Company is a lessee are evaluated to classify the lease as a finance or operating lease. Operating lease assets and liabilities are recognized at the commencement date of the lease based on the present value of lease payments over the lease term. Lease assets represent the Company's right to use an underlying asset for the lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. As most leases do not provide an implicit interest rate, the Company uses its incremental borrowing rate based on the information available at the lease commencement date in determining the present value of lease payments.

Leases with an initial term of 12 months or less are not recorded on the Company's consolidated balance sheets. The Company recognizes lease expense for these leases on a straight-line basis over the lease term. The Company accounts for lease components and non-lease components as a single lease component.

Impairment of Long-Lived Assets

The Company performs a recoverability assessment of each of its long-lived assets whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Indicators may include, but are not limited to, adverse changes in the regulatory environment in a jurisdiction where the Company operates, a decision to discontinue the development of a long-lived asset, early termination of a significant customer contract, or the introduction of newer technology.

When performing a recoverability assessment, the Company measures whether the estimated future undiscounted net cash flows expected to be generated by the asset exceeds its carrying value. In the event that an asset does not meet the recoverability test, the carrying value of the asset will be adjusted to fair value resulting in an impairment charge.

Management develops the assumptions used in the recoverability assessment based on active contracts as well as information received from third-party industry sources. The Company did not record an impairment for years ended December 31, 2024 and 2023.

Equity Method Investments

Investments in entities over which the Company has significant influence, but not control, are accounted for using the equity method of accounting. Gain or loss from equity method investees, net, represents the Company's proportionate share of net income or loss of its equity method investees and any gains or losses resulting from transactions in the investee's equity.

The Company's equity method investment is assessed for impairment whenever changes in the facts and circumstances indicate a loss in value may have occurred. When a loss is deemed to have occurred and is other than temporary, the carrying value of the equity method investment is written down to fair value. In evaluating whether a loss is other than temporary, the Company considers the length of time for which the conditions have existed and its intent and ability to hold the investment.

Equity Security Investments

Investments in entities over which the Company has neither significant influence, nor control, are accounted for as equity security investments. For investments where the fair value is not readily determinable, the Company will account for its investment using the alternative measurement principals as permitted under ASC 321, *Investments — Equity Securities*.

Subsequently, under the alternative measurement method, the Company will adjust the carrying value for observable changes in price and will reassess whether its investment continues to qualify for such method. Additionally, the Company will perform a qualitative assessment and recognize an impairment if there are sufficient indicators that the fair value of the investment is less than its carrying value. The changes in value and impairment charges (if any), are recorded in Other expense, net in the consolidated statements of operations and comprehensive loss.

Investment securities

The Company classifies investment securities according to their purpose and holding period. All investment securities are debt securities that have been classified as held-to-maturity ("HTM") because the Company has both the ability and intent to hold the securities to maturity.

HTM debt securities are comprised of U.S. Treasury bills, U.S. Treasury notes, Yankee bonds, and corporate debt. HTM debt securities are carried at amortized cost, which is original cost net of periodic principal repayments and amortization of premiums and accretion of discounts. Accrued interest receivable is recorded within trade and other receivables, net of allowance on the consolidated balance sheets. Amortization of premiums and accretion of discounts are computed using the contractual level-yield method (contractual interest method), adjusted for actual prepayments. The contractual interest method recognizes the income effects of premiums and discounts over the contractual life of the securities based on the actual behavior of the underlying assets, including adjustments for actual prepayment activities, and reflects the contractual terms of the securities without regard to changes in estimated prepayments based on assumptions about future borrower behavior.

HTM securities are evaluated individually on a quarterly basis for expected credit losses. If applicable, an allowance for credit losses is recorded with a corresponding credit loss expense (or reversal of credit loss expense). The allowance for credit losses excludes uncollectible accrued interest receivable, which is measured separately.

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. As a result of the Business Combination, the Brookfield SAFE can be converted into a maximum number of shares of 5,000,000. 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 mark-to-market liability.

On February 14, 2025, the Company and Brookfield terminated the Brookfield SAFE and all rights and obligations and concurrently entered into a Loan Agreement as defined in *Note 19 - Subsequent Events*.

Warrants

The Company accounts for its warrants as either equity-classified or liability-classified instruments based on an assessment of the warrant’s specific terms and applicable authoritative guidance in ASC 480, *Distinguishing Liabilities from Equity* (“ASC 480”) and ASC 815-40, *Derivatives and Hedging—Contracts in Entity’s Own Equity* (“ASC 815-40”). The assessment considers whether the warrants are freestanding financial instruments pursuant to ASC 480, meet the definition of a liability pursuant to ASC 480, and whether the warrants meet all of the requirements for equity classification under ASC 815-40, including whether the warrants are indexed to the Company’s own common stock, among other conditions for equity classification.

The Company has the following warrants (further described hereunder): Public Warrants and Private Placement Warrants classified as liability (see *Note 10 - Fair Value*) and the FPA Warrants classified as equity.

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 December 31, 2024, 7,499,924 Public Warrants and 4,774,276 Private Placement Warrants remained outstanding.

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 Forward Purchase Agreement (collectively, the “FPA Warrants”) (see *Note 9 - Forward Purchase Agreement*, *Note 17 - Commitments and Contingencies* and *Note 19 - Subsequent Events* for additional information).

For issued or modified warrants that meet all of the criteria for equity classification, the warrants are required to be recorded at fair value as a component of additional paid-in capital at the time of issuance. For issued or modified warrants that do not meet all the criteria for equity classification, the warrants are required to be recorded at their initial fair value on the date of issuance and adjusted to the current fair value at each balance sheet date thereafter. Changes in the estimated fair value of the warrants are recognized as a non-cash gain or loss in Other expense, net on the consolidated statements of operations and comprehensive loss.

Forward Purchase Agreement

On February 3, 2023, the Company entered into a FPA with ACM. 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 common shares (“Recycled Shares”) on the open market for \$10.16 per share (“Redemption Price”), and such 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 three 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 share price trades below \$3.00 per share for any 50 trading days during a 60 day consecutive trading-day period or the Company is delisted. On any date following the Business Combination, the Purchasers also 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 to 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 (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 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 7,500,000 less 5,916,513 multiplied by \$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 consolidated balance sheets. 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 consolidated statements of operations and comprehensive loss.

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 (the “VWAP Trigger Event”). On July 22, 2024, Vellar notified the Company of a VWAP Trigger Event, purporting to accelerate the FPA Maturity Date of its portion of the Recycled Shares (i.e., 2,999,000 shares) to July 22, 2024. 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 17 - Commitments and Contingencies). As a result, the Company reclassified the Maturity Consideration and the Share Consideration to current liabilities on the consolidated balance sheets and the FPA Put Option excluding the Variable Maturity Consideration portion, which remains in long-term liabilities (refer to Note 9 - Forward Purchase Agreement).

In October 2024, ACM accelerated the FPA Maturity Date with respect to its portion of the FPA in connection with the VWAP Trigger Event, and the Company fully satisfied its obligation to ACM in accordance with the FPA’s provisions (see Note 9 - Forward Purchase Agreement).

Convertible Note

On August 5, 2024, the Company entered into a Convertible Note Purchase Agreement (the “Convertible Note Purchase Agreement”) with Carbon Direct Capital pursuant to which the Company agreed to sell and issue to Carbon Direct Capital 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. On August 6, 2024, the Company issued and sold a

principal amount of \$40,150 of convertible notes to Carbon Direct Capital 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 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 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 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 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 as services are rendered 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.

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 because services are rendered to satisfy the performance obligations. The Company 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 are typically due from customers when a milestone is completed or 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.

Grants

Grants received to perform services related to biorefining or joint development and contract research, 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.

CarbonSmart

The Company purchases ethanol from the customers who have deployed the Company's 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 the Company's 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 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

The Company expenses 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 contracting entities outside of the United States for the years ended December 31, 2024 and 2023 was approximately 52% and 73%, respectively.

As of December 31, 2024 and December 31, 2023, approximately 36% and 49%, respectively, of trade accounts receivable and unbilled accounts receivable were due from contracting entities located outside the United States. As of December 31, 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 years ended December 31, 2024 and 2023:

	Years Ended December 31,	
	2024	2023
Customer A	25 %	6 %
Customer B	13 %	38 %

Stock-Based Compensation

In exchange for certain employee and director services, compensation is given in the form of equity-based awards. The Company accounts for equity-based compensation in accordance with ASC 718, Compensation – Stock Compensation. Accordingly, equity-classified awards are recorded based on the grant date fair value and expensed over the requisite service period for the respective award. Liability-classified awards are remeasured at the end of each reporting period and expensed based on the percentage of requisite service that has been rendered.

The Company's equity-based awards include stock option awards, restricted stock units, stock-appreciation rights ("SARs") and restricted stock issued by the Company, which vest based on either time and/or the achievement of certain market or performance conditions. The Company records forfeitures as they occur. Compensation expense is recognized in the Company's consolidated statements of operations and comprehensive loss, primarily within research and development expenses. For awards with only service conditions that have a graded vesting schedule, the Company recognizes compensation cost on a straight-line basis over the requisite service period for the entire award. For awards with market or performance conditions that have a graded vesting schedule, the Company recognizes compensation cost on a straight-line basis over the requisite service period for each tranche of the award. Compensation expense resulting from performance awards is recognized over the requisite service period when it is probable that the performance condition will be met. The recognized compensation expense for performance awards is adjusted based on an estimate of awards ultimately expected to vest.

The Company estimates the fair value of service and performance-based options and SARs using a Black-Scholes option pricing model that uses assumptions including expected volatility, expected term, and the expected risk-free rate of return. The Company estimates the fair value of market-based RSUs using the Monte Carlo simulation model that uses assumptions including expected volatility, and the derived service period. The Company uses peer data to determine expected volatility and expected term. The Company estimates the fair value of RSUs based on the closing market price of its common stock on the date of measurement.

Benefit Plans

The Company sponsors a 401(k) defined contribution retirement plan for the benefit of its employees, substantially all of whom are eligible to participate after meeting minimum qualifying requirements. Contributions to the plan are at the discretion of the Company. For the years ended December 31, 2024 and 2023, the Company contributed \$1,539 and \$1,253, respectively, to the plan, which contributions are included within Cost of Revenues, Research and

development expense and Selling, general and administrative expense in the consolidated statements of operations and comprehensive loss.

Income Taxes

The Company follows the asset and liability method of accounting for income taxes under ASC 740, *Income Taxes*. Deferred tax assets and liabilities are recognized for the estimated future tax consequences attributable to temporary differences between the financial statements carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that included the enactment date. Valuation allowances are established, when necessary, to reduce deferred tax assets to the amount expected to be realized.

Deferred income tax assets are evaluated to determine if valuation allowances are required or should be adjusted. Valuation allowances are established based on a more likely than not standard. The ability to realize deferred tax assets depends on the Company's ability to generate sufficient taxable income within the carry back or carryforward periods provided for in the tax law for each tax jurisdiction. The Company considers the various possible sources of taxable income when assessing the realization of its deferred tax assets. The valuation allowances recorded against deferred tax assets generated by taxable losses in certain jurisdictions will affect the provision for income taxes until the valuation allowances are released. The Company's provision for income taxes will include no tax benefit for losses incurred and no tax expense with respect to income generated in these jurisdictions until the respective valuation allowance is eliminated.

The Company records uncertain tax positions on the basis of a two-step process whereby it is determined whether it is more likely than not that the tax positions will be sustained based on the technical merits of the position, and for those tax positions that meet the more likely than not criteria, the largest amount of tax benefit that is greater than 50% likely to be realized upon ultimate settlement with the related tax authority is recognized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits in income tax expense.

Related Party Transactions

The Company follows ASC 850-10, *Related Party Transactions*, for the identification of related parties and disclosure of related party transactions.

Pursuant to ASC 850-10-20, related parties include: a) affiliates of the Company; b) entities for which investments in their equity securities would be required, absent the election of the fair value option under the Fair Value Option Subsection of Section 825-10-15, to be accounted for by the equity method by the investing entity; c) trusts for the benefit of employees, such as pension and profit-sharing trusts that are managed by or under the trusteeship of management; d) principal owners of the Company; e) management of the Company; f) other parties with which the Company may deal if one party controls or can significantly influence the management or operating policies of the other to an extent that one of the transacting parties might be prevented from fully pursuing its own separate interests; and g) other parties that can significantly influence the management or operating policies of the transacting parties or that have an ownership interest in one of the transacting parties and can significantly influence the other to an extent that one or more of the transacting parties might be prevented from fully pursuing its own separate interests. Refer to *Note 6 - Investments*, and *Note 15 - Related Party Transactions*, for further information.

Net Loss Per Share

Basic net loss per share is computed by dividing net loss attributable to participating stock by the weighted average number of shares of participating stock outstanding during the period.

Diluted net loss per share reflects potential dilution and is computed by dividing net loss attributable to participating stock by the weighted average number of shares of participating stock outstanding during the period. The dilutive effect of outstanding awards, if any, is reflected in diluted earnings per share by application of the treasury stock method or if-converted method, as applicable. Refer to *Note 4 - Net Loss Per Share*, for additional information.

Shareholders' Equity

The securities of the Company are represented by common stock and preferred stock, each having \$0.0001 par value per share. Each common share is entitled to one vote. With respect to payment of dividends and distribution of assets upon liquidation, dissolution or winding up of the Company, whether voluntary or involuntary, all common shares shall participate pro rata in such payment whenever funds are legally available and when declared by the Board of Directors of the Company, subject to the prior rights of holders of all classes of stock outstanding.

On October 2, 2024, the Company's stockholders approved an increase in the number of shares of common stock the Company was authorized to issue from 400,000,000 to 620,000,000. As of December 31, 2024, the Company was authorized to issue 620,000,000 shares, of which 600,000,000 shares of capital stock are designated common stock and 20,000,000 shares are designated preferred stock.

Shares issued and outstanding for common stock is presented on the Company's consolidated balance sheets, and no shares were issued or outstanding for the preferred stock as of December 31, 2024 and 2023, respectively.

Recently Adopted 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. The Company adopted the standard in the fourth quarter of 2024. The adoption did not have a material impact on its consolidated financial statements. Refer to "Note 16 — Segment" for additional information.

Recently Issued Accounting Pronouncements

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 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. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

ASU 2024-04, Induced Conversions of Convertible Debt Instruments ("ASU 2024-04")

In November 2024, the FASB issued ASU No. 2024-04, which provides guidance on the accounting for induced conversions of convertible debt instruments. The update clarifies that any additional value given to the debt holder as an inducement should be recorded as an expense at the time of conversion. This standard aims to ensure consistent financial reporting for these types of transactions. This ASU is effective for public companies with annual periods beginning after December 15, 2025, and interim periods within those annual periods, with early adoption permitted. The Company is currently evaluating the impact of this new guidance on its consolidated financial statements and related disclosures.

ASU 2023-09, Improvements to Income Tax Disclosures ("ASU 2023-09")

In December 2023, the FASB issued ASU No. 2023-09, which requires disaggregated information about a reporting entity's effective tax rate reconciliation as well as information on income taxes paid. The standard is intended to help investors better assess how a company's operations and related tax risks and tax planning and operational opportunities affect the Company's tax rate and prospects for future cash flows. ASU 2023-09 improves disclosures by requiring (1) consistent categories and greater disaggregation of information in the rate reconciliation and (2) income taxes paid disaggregated by jurisdiction. It also includes certain other amendments to improve the effectiveness of income tax disclosures. This ASU is effective for public companies with annual periods beginning after December 15, 2024, with early

adoption permitted. The standard is effective for the Company starting in annual periods in 2025. The Company has not elected early adoption of ASU 2023-09 and will incorporate required disclosures in its annual financial statements for the year ending December 31, 2025.

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 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 ArcelorMittal SAFE liability, initially issued in December 2021. The Company incurred \$7,223 in transaction costs relating to the Business Combination and recorded those costs against Additional paid-in capital in the 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 consolidated statements of cash flows:

	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 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)
	<u>\$ 236,973</u>
Less: par value of shares held by PIPE investors and public stockholders	(3)
Total additional paid-in capital from recapitalization	<u>\$ 236,970</u>

Redeemable, Convertible Preferred Stock

Prior to the Business Combination, the Company had six outstanding series of contingently redeemable convertible preferred stock. All redeemable, convertible preferred stock was converted into common shares on the Closing Date of the Business Combination on a 1:1 basis. Immediately before the conversion, all cumulative dividends were declared, totaling a dividend payable of \$241,529. This dividend was paid in-kind and subsequently converted, as a result of the Business Combination, into an additional 24,152,942 common shares. After the in-kind dividend payment and the conversion, the former preferred shareholders held 153,895,644 common shares.

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):

	Years Ended December 31,	
	2024	2023
Numerator:		
Net loss for basic and diluted earnings per common share	\$ (137,731)	\$ (134,098)
Unpaid cumulative dividends on preferred stock	—	(4,117)
Net loss allocated to common shareholders	\$ (137,731)	\$ (138,215)
Denominator:		
Weighted-average shares used in calculating net loss per share, basic and diluted	197,579,945	176,023,219
Net loss per common share, basic and diluted ⁽¹⁾	\$ (0.70)	\$ (0.79)

(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 December 31, 2024 and 2023, common stock equivalents not included in the computation of loss per share because their effect would be antidilutive included the following:

	December 31,	
	2024	2023
Options	18,658,807	16,411,978
RSUs	7,767,910	7,084,967
Convertible Note	32,000,000	—
Brookfield SAFE	5,000,000	5,000,000
Warrants	16,657,686	16,657,686
Total	80,084,403	45,154,631

Note 5 — Revenues

Disaggregated Revenue

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

	Years Ended December 31,	
	2024	2023
Contract Types:		
Licensing	\$ 11,297	\$ 3,449
Engineering and other services	19,761	39,196
Biorefining revenue	\$ 31,058	\$ 42,645
Joint development agreements	6,226	8,416
Contract research	4,365	6,233
Joint development and contract research revenue	\$ 10,591	\$ 14,649
CarbonSmart product	7,943	5,337
Total Revenue	<u>\$ 49,592</u>	<u>\$ 62,631</u>

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):

	Years Ended December 31,	
	2024	2023
Revenue from partners in collaborative agreements included in the Joint development agreements above	\$ 5,573	\$ 5,529
Revenue from grant contributions included in Engineering and other services above	6,403	24,146

Revenue by Geographic Location

The following table presents disaggregation of the Company's revenues by customer location for the years ended December 31, 2024 and 2023 (in thousands):

	Years Ended December 31,	
	2024	2023
North America	\$ 23,587	\$ 17,618
Europe, Middle East, Africa (EMEA)	16,260	37,447
Asia	8,862	3,570
Australia	883	3,996
Total Revenue	<u>\$ 49,592</u>	<u>\$ 62,631</u>

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	40,771	—	—
Increases due to consideration received	—	15,823	—
Unbilled accounts receivable recognized in trade receivables	(49,934)	—	—
Decrease on revaluation on currency	(100)	(27)	(313)
Reclassification from long-term to short-term	—	4,030	(4,030)
Reclassification to revenue as a result of performance obligations satisfied	—	(19,543)	—
Additions due to LanzaJet sublicense	—	2,687	1,343
Balance as of December 31, 2024	<u>\$ 18,975</u>	<u>\$ 6,168</u>	<u>\$ 5,233</u>

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 December 31, 2024 and December 31, 2023 the Company had \$9,456 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 December 31, 2024, the Company had approximately \$30,179 in contracted revenue remaining to be recognized, of which \$22,329 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.

(in thousands)	December 31, 2024				
	Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value	Accrued Interest
Short-term:					
Corporate debt securities	\$ 12,374	\$ 3	\$ (6)	\$ 12,371	\$ 83
Total HTM Debt Securities	<u>\$ 12,374</u>	<u>\$ 3</u>	<u>\$ (6)</u>	<u>\$ 12,371</u>	<u>\$ 83</u>

(in thousands)	December 31, 2023				
	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 HTM Debt Securities	\$ 45,159	\$ 20	\$ (41)	\$ 45,138	\$ 266

The Company regularly reviews HTM securities for declines in fair values that are determined to be credit related. As of December 31, 2024 and December 31, 2023, 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):

	December 31,	
	2024	2023
Equity Method Investment in LanzaJet	\$ 4,363	\$ 7,066
Equity Security Investment in SGLT	14,990	14,990
Total Investment	\$ 19,353	\$ 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 the Company's equity method investment in LanzaJet. As a result, LanzaTech's ownership in LanzaJet increased to 37.01%.

During the years ended December 31, 2024 and 2023, the Company recognized revenue from this arrangement of \$11,297 and \$2,249 respectively, net of intra-entity profit elimination and has associated deferred revenue of \$5,375 and \$5,375 as of December 31, 2024 and 2023, respectively. Net intra-entity profits related to this arrangement were \$3,703 and \$437 for the years ended December 31, 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 15 - 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 \$541 and \$532 in the years ended December 31, 2024 and 2023, respectively. During the year ended December 31, 2024, LanzaJet drew additional funds committed in the LanzaJet Note Purchase Agreement and as a result the Company's ownership in LanzaJet was diluted to 36.33%. 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.

The carrying value of the Company's equity method investment in LanzaJet as of December 31, 2024 and 2023 was approximately \$2,100 and \$3,400 less than its proportionate share of its equity method investees' book values, respectively. The basis differences are largely the result of a difference in the timing of recognition of variable consideration to which the Company is entitled in exchange for its contribution of intellectual property to LanzaJet as discussed above. The variable consideration the Company 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 the Company's 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 December 31, 2024 and 2023.

The following table presents summarized aggregated financial information of our equity method investment:

	Years Ended December 31,	
	2024	2023
Selected Statement of Operations Information ⁽¹⁾ :		
Revenues	\$ 13,477	\$ 4,542
Gross profit	5,209	2,526
Net loss	(43,743)	(14,881)
Net loss attributable to the Company	\$ (14,775)	\$ (3,432)
	Years Ended December 31,	
	2024	2023
Selected Balance Sheet Information ⁽²⁾ :		
Current assets	\$ 79,060	\$ 79,843
Non-current assets	271,019	185,720
Current liabilities	(29,069)	44,145
Non-current liabilities	\$ (303,352)	\$ 175,899

(1) The income statement amounts reflect LanzaJet's activity for the years ended December 31, 2024 and 2023.

(2) The balance sheet information reflects LanzaJet as of December 31, 2024 and 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 has decreased to approximately 9.31% as a result of investment by new investors. The Company accounts for its investment in equity securities of SGLT using the alternative measurement principles as permitted under ASC 321, *Investments - Equity Securities*, because SGLT's fair value is not readily determinable. For the years ended December 31, 2024 and 2023, there was no change in the recorded amount of the investment in SGLT.

As of December 31, 2024 and 2023, there were no impairments of equity investments. During the years ended December 31, 2024 and 2023, the Company received no dividends from equity investments. See *Note 15 - Related Party Transactions*, for information on revenues, accounts receivable, contract assets and purchases and open accounts payable with the Company's equity investments.

Note 7 — Brookfield SAFE

On October 2, 2022, the Company entered into 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. As a result of the Business Combination, the Brookfield SAFE can be converted into a maximum number of shares of 5,000,000. 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 of 8.0 percent, 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 December 31, 2024. As of December 31, 2024 and 2023, the fair value of the Brookfield SAFE was \$13,223 and \$25,150 respectively and was recorded within Brookfield SAFE liability on the consolidated balance sheets.

On February 14, 2025, the Company and Brookfield terminated the Brookfield SAFE and all rights and obligations, and concurrently entered into a Loan Agreement as defined in *Note 19 - Subsequent Events*. The Framework Agreement, as described below remains in full effect.

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 had been no investments in projects as of December 31, 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 Carbon Direct Capital 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. On August 6, 2024, the Company issued and sold \$40,150 principal amount of convertible notes to Carbon Direct Capital 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 of \$1.25 per share. 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 December 31, 2024, no Qualified Equity Financing nor Non-Qualifying Financing events had occurred.

The Company elected the fair value option to account for the Convertible Note. See *Note 10 - Fair Value* for further details on the liability recorded as of December 31, 2024 and associated losses in the change of its fair value for the year ended December 31, 2024. The Company incurred \$3,169 of related transaction costs, which were included with other accrued liabilities of the consolidated balance sheets as of December 31, 2024 and selling, general and administrative expense of the consolidated statements of operations and comprehensive loss for the year ended December 31, 2024.

Note 9 — 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 the Company's consolidated balance sheets. Expensed transaction costs, representing the stock acquisition fees, in the amount of \$451 were recorded in Other expense, net on the consolidated statements of operations and comprehensive loss in the year ended December 31, 2023.

On July 22, 2024, Vellar purported to accelerate the FPA Maturity Date with respect to its portion of the Recycled Shares (i.e., 2,999,000 shares) to July 22, 2024 in connection with the VWAP Trigger Event. 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 17 - Commitments and Contingencies*).

On October 4, 2024, ACM delivered to the Company notice of satisfaction of the VWAP Trigger Event, 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.

The Fixed Maturity Consideration was valued at \$4,123 as of December 31, 2024, which represents the fair value of the fixed portion of the Share Consideration and the Minimum Maturity Consideration and classified as current in the consolidated balance sheets. As of December 31, 2023, the Fixed Maturity Consideration was valued at \$7,228 and was classified as non-current liability in the consolidated balance sheets.

The FPA Put Option was valued at \$30,015 as of December 31, 2024 and \$37,523 in December 31, 2023 and were classified as non-current liability in the consolidated balance sheets.

In January 2025, Vellar exercised all of its 2,010,000 FPA Warrants, see *Note 17 - Commitments and Contingencies* and *Note 19 - Subsequent Events* for further details.

Note 10 — Fair Value

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

	December 31, 2024			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 30,136	\$ —	\$ —	\$ 30,136
Total assets	\$ 30,136	\$ —	\$ —	\$ 30,136
Liabilities:				
Convertible Note	\$ —	\$ —	\$ 51,112	\$ 51,112
FPA Put Option liability	—	—	30,015	30,015
Fixed Maturity Consideration and current portion of the FPA Put Option	—	—	4,123	4,123
Brookfield SAFE liability	—	—	13,223	13,223
Private Placement Warrants	—	—	1,432	1,432
Public Warrants	2,099	—	—	2,099
Total liabilities	\$ 2,099	\$ —	\$ 99,905	\$ 102,004
	December 31, 2023			
	Level 1	Level 2	Level 3	Total
Assets:				
Cash equivalents	\$ 28,058	\$ —	\$ —	\$ 28,058
Total assets	\$ 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 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. Thereafter, 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 the reporting date. 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 December 31, 2024 and December 31, 2023:

	December 31, 2024	December 31, 2023
Stock price	\$ 1.37	\$ 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 in July 2024 under the FPA and fully settled with ACM in October 2024 (see *Note 9 - Forward Purchase Agreement* and *Note 17 - Commitments and Contingencies*)

Convertible Note

The Company has elected to measure the Convertible Note using the fair value option under ASC 825. As of December 31, 2024, no part of the Convertible Note had converted into the Company's common stock as no Qualified Equity Financing nor Non-Qualifying Financing events have occurred and the holder had 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 a decrease of approximately \$11,743 on the consolidated statements of operations and comprehensive loss within Other expense, net, representing the change in fair value from the initial closing to December 31, 2024, and \$781 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 December 31, 2024 and August 6, 2024:

	December 31, 2024	August 6, 2024
Stock price	\$ 1.37	\$ 1.40
Term (in years)	4.60	5
Expected volatility	110.0 %	85.0 %
Risk-free interest rate	4.3 %	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 December 31, 2024, no part of the Brookfield SAFE had converted to Company common shares as no qualifying projects had been presented to Brookfield yet. There were no cash flows associated with the Brookfield SAFE as of December 31, 2024.

As of December 31, 2024, the Company expected to present projects to Brookfield to result in the Brookfield SAFE liability being automatically converted into shares at 75% with remaining portion to be outstanding until maturity. For the conversion portion, 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 converted portion of initial purchase amount, divided by the liquidity price, multiplied by the stock price.

For the maturity portion, the Brookfield SAFE is not automatically converted prior to maturity. At maturity, the holder could either convert or receive the remaining principal and interest in cash, similar in structure to a standard convertible note. Accordingly, the fair value of the maturity portion was estimated using the Black-Scholes option pricing model. The strike price would be the accrued balance of the Brookfield SAFE at maturity. On a per share basis the strike price would be \$14.69 (i.e. \$10.00 grown at 8.0 percent until maturity five (5) years from issuance). The "stock" price

input would be the current value of the shares that Brookfield would receive at conversion. On a per share price basis, the stock price input would be the Valuation Date stock price of \$1.37. Based on the portion of the Brookfield SAFE expected to automatically convert and the portion of the Brookfield SAFE expected to remain outstanding until maturity, the estimated fair value of Brookfield SAFE was 13,223 as of December 31, 2024, which is recorded on the consolidated balance sheets.

On February 14, 2025, the Company and Brookfield terminated the Brookfield SAFE and all rights and obligations, and concurrently entered into a Loan Agreement as defined in *Note 19 - Subsequent Events*.

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

	December 31, 2024	December 31, 2023
Initial purchase amount.....	\$ 50,000	\$ 50,000
Liquidity price.....	\$ 10.00	\$ 10.00
Stock price.....	\$ 1.37	\$ 5.03
Term (in years).....	3.11	N/A
Expected volatility.....	67.5 %	N/A
Risk-free interest rate.....	4.3 %	N/A
Expected dividend yield.....	— %	N/A

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 consolidated statements of operations and comprehensive loss. The Company recognized decreases in the fair value of the liability of \$1,600 during the year ended December 31, 2024 compared to an increase of \$1,224 in 2023.

The fair value of the Private Placement Warrants was estimated using a Black-Scholes option pricing model. For the year ended December 31, 2024, the Company recognized a decrease in the fair value of \$2,483 compared to a decrease of \$1,766 for the prior year. Changes in fair value are recorded on the 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 December 31, 2024 and December 31, 2023:

	December 31, 2024	December 31, 2023
Stock price.....	\$ 1.37	\$ 5.03
Exercise price.....	\$ 11.50	\$ 11.50
Term (in years).....	3.11	4.11
Expected volatility.....	97.5 %	45.0 %
Risk-free interest rate.....	4.28 %	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)	—	—	—	—
Partial settlement of Forward Purchase Agreement	—	30,000	4,123	—	—
(Loss) gain recognized in other expense, net on the consolidated statement of operations and comprehensive loss	(10,962)	(22,492)	(1,018)	11,927	2,482
Balance as of December 31, 2024	<u>\$ (51,112)</u>	<u>\$(30,015)</u>	<u>\$ (4,123)</u>	<u>\$(13,223)</u>	<u>\$ (1,432)</u>

	FPA Put Option	Fixed Maturity Consideration	FPA 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	(37,523)	(7,228)	(3,063)	(3,770)	(744)	189	24,850	(1,766)
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 December 31, 2023	<u>\$ (37,523)</u>	<u>\$ (7,228)</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$(25,150)</u>	<u>\$ (3,914)</u>

Note 11 — Other Current Assets

As of December 31, 2024 and 2023 other current assets consisted of the following (in thousands):

	December 31,	
	2024	2023
Inventory	\$ 2,156	\$ 1,750
Materials and supplies	3,583	3,595
Prepaid assets	3,416	3,698
Other	5,875	3,518
Total	<u>\$ 15,030</u>	<u>\$ 12,561</u>

Note 12 — Property, Plant, and Equipment, net

The Company's property, plant and equipment, net consisted of the following (in thousands):

	December 31,	
	2024	2023
Plant and Equipment	\$ 45,014	\$ 40,827
Leasehold improvements	7,012	4,837
Office Equipment and furniture	2,351	2,103
Vehicles	92	92
Land	64	64
Other	932	900
Construction in progress	4,638	6,287
	<u>\$ 60,103</u>	<u>\$ 55,110</u>
Less accumulated depreciation and amortization	<u>\$ 37,770</u>	<u>\$ 32,287</u>
Property, plant and equipment, net	<u><u>\$ 22,333</u></u>	<u><u>\$ 22,823</u></u>

Depreciation for the years ended December 31, 2024 and 2023 totaled \$5,567 and \$5,452, respectively.

Note 13 — 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 were no deferred income taxes recognized for the years ended December 31, 2024 and 2023.

The Company recorded no income tax expense for the years ended December 31, 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 years ended December 31, 2024 and 2023 was 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 2018 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 components of (loss) income before income taxes and loss from equity method investees, net are as follows (in thousands):

	Years Ended December 31,	
	2024	2023
United States	\$ (136,223)	\$ (134,020)
Foreign	(1,508)	(78)
Total	<u>\$ (137,731)</u>	<u>\$ (134,098)</u>

The Company does not have any current or deferred taxes in either the United States or its foreign operations.

The following table is a reconciliation of income taxes computed at the statutory federal income tax rate (21.0% federal income tax rate in the United States for 2024 and 2023) to the income tax expense (benefit) reflected in the consolidated statement of operations and comprehensive loss (in thousands, except percentages):

	Years Ended December 31,			
	2024		2023	
Income tax (benefit) at the statutory federal income tax rate	\$ (28,924)	21.0 %	\$ (28,145)	21.0 %
Foreign tax rate differential	102	(0.1)%	(15)	— %
State and local taxes	(12,148)	8.8 %	(9,757)	7.3 %
Share Based Compensation	547	(0.4)%	197	(0.1)%
Nondeductible loss on stock	1,126	(0.8)%	6,324	(4.7)%
Valuation allowance	34,544	(25.1)%	31,661	(23.6)%
Expiring NOLs	1,109	(0.8)%	—	— %
Other	3,644	(2.6)%	(265)	0.2 %
Total income tax expense (benefit)	<u>\$ —</u>	<u>— %</u>	<u>\$ —</u>	<u>— %</u>

Deferred Taxes

Significant components of deferred tax assets and liabilities were as follows (in thousands):

	Years Ended December 31,	
	2024	2023
Deferred tax assets:		
Net operating loss and credit carryforwards	\$ 150,372	\$ 134,609
Stock-based compensation	6,636	4,526
Operating lease liability	9,551	6,281
Accrued bonus	—	—
Accrued expenses	168	—
Deferred revenue	203	148
Equity method investment	3,875	3,051
R&D capitalization	38,517	26,725
Other	4,357	1,051
Total deferred tax assets	213,679	176,391
Valuation allowance	(205,566)	(171,223)
Total net deferred tax asset	8,113	5,168
Deferred tax liabilities:		
Operating lease asset	(8,113)	(5,584)
Other	—	416
Total deferred tax liabilities	(8,113)	(5,168)
Net deferred income tax assets and liabilities	\$ —	\$ —

At December 31, 2024 and 2023, the Company had \$456,014 and \$395,590, respectively, of tax losses and credits carried forward subject to shareholder continuity and acceptance in the countries where the Company has tax losses carried forward. R&D tax credits included within these amounts are \$35,111 and \$35,147 for the respective periods, which may be available to offset future income tax liabilities. At December 31, 2024 and 2023, the net operating loss and credit carryforwards were comprised of \$376,507 and \$321,743 in the United States, \$34,019 and \$30,011 in state and local jurisdictions, \$45,456 and \$43,805 in foreign jurisdictions, respectively. At December 31, 2024 and 2023, the Company had net operating loss carryforwards of approximately \$148,511 and \$144,588, respectively, that expire in various years from 2024 through 2044, plus \$272,391 and \$215,891, respectively, for which there is no expiration date.

Section 382 of the Internal Revenue Code imposes an annual limitation on the utilization of net operating loss carryforwards based on a statutory rate of return and the value of the corporation at the time of a “change of ownership” as defined by Section 382. The Company had a change in ownership in November 2014. Therefore, the Company’s ability to utilize its net operating loss carryforwards incurred prior to the 2014 ownership change, will be subject in future periods to annual limitations.

In assessing the realizability of deferred tax assets, the Company assesses whether it is more-likely-than-not that a portion or all of the deferred tax assets will not be realized. The Company considers the scheduled reversal of deferred tax liabilities, tax planning strategies and projected future taxable income in making this assessment. At December 31, 2024 and 2023, a valuation allowance of \$205,566 and \$171,223, respectively, was recorded against certain deferred tax assets based on this assessment. The Company believes it is more-likely-than-not that the tax benefit of the remaining net deferred tax assets will be realized. The amount of net deferred tax assets considered realizable could be increased or reduced in the future if the Company’s assessment of future taxable income or tax planning strategies changes.

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 were no deferred income taxes recognized as of December 31, 2024 and 2023.

At December 31, 2024 and 2023, the Company had no tax liability or benefit related to uncertain tax positions. No interest or penalties related to uncertain taxes have been recognized on the accompanying consolidated statements of operations. Management does not expect a significant change in uncertain tax positions during the twelve months subsequent to December 31, 2024.

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. During December 2021, the Internal Revenue Service completed an income tax examination of the Company's U.S. federal income tax return for the year ended December 31, 2016, which resulted in no impact to the Company's consolidated financial statements. The Company has no other ongoing tax examinations with domestic or foreign taxing authorities.

During 2021, the Company migrated its country of domicile from New Zealand to Delaware in the United States. On migration, the Company was deemed to have disposed of all its assets and liabilities to a third-party at market value which resulted in taxable income to the Company for New Zealand income tax purposes. The migration to Delaware is classified as a tax-free reorganization for U.S. federal income tax purposes.

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 2.0), with certain aspects of Pillar 2.0 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 the Company operates, have adopted legislation, and other countries are in the process of introducing legislation to implement Pillar 2. The Company does not anticipate Pillar 2 to have material impacts on its effective tax rate, financial position or cash flows.

Note 14 — Share-Based Compensation

In 2023, the Company adopted the LanzaTech 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 three 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 three 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
Non-vested Outstanding at January 1, 2024	3,155	\$ 3.51	3,930	\$ 1.69
Granted	2,401	3.00	—	—
Vested	(1,151)	3.49	(253)	1.61
Cancelled/forfeited	(396)	3.32	(214)	1.61
Non-vested Outstanding at December 31, 2024	4,009	\$ 3.22	3,463	\$ 1.71

The Company recorded compensation expense related to the time-based RSUs of \$5,355 for the year ended December 31, 2024. Unrecognized compensation cost as of December 31, 2024 was \$8,444 and will be recognized over a weighted average of 1.75 years.

The Company recorded compensation expense related to the market-based RSUs of \$1,958 for the year ended December 31, 2024. Unrecognized compensation costs as of December 31, 2024 was \$896 and will be recognized over a weighted average of 1.03 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 December 31, 2024 and changes during the period ended December 31, 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	(206)	1.44		
Cancelled/forfeited	(560)	3.31		
Expired	(241)	3.19		
Outstanding at December 31, 2024	18,659	\$ 2.11	5.60	\$ 1,476
Vested and expecting to vest at December 31, 2024	18,659	2.11	5.60	1,476
Exercisable at December 31, 2024	12,819	\$ 1.67	4.31	\$ 1,294

The Company recorded compensation expense related to the options of \$6,132 and \$5,623 for the years ended December 31, 2024 and 2023, respectively. Unrecognized compensation costs as of December 31, 2024 was \$8,369 and will be recognized over a weighted average of 1.78 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 year ended December 31, 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. There were no RSA award outstanding as of December 31, 2024.

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 three 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 15 — Related Party Transactions

As of December 31, 2024 and 2023, the Company had 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	
	December 31, 2024	December 31, 2023
Accounts receivable	\$ 2,452	\$ 2,190
Contract assets	399	659
Notes receivable	5,789	5,436
Accounts payable	234	582

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

	Years Ended December 31,	
	2024	2023
Revenue from related parties, included within Licensing	\$ 11,297	\$ 3,449
Revenue from related parties, included within Engineering and other services	1,784	2,363

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 years ended December 31, 2024 and 2023, the Company recognized revenue from related parties of approximately \$194 and \$245, 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 \$62 and \$468, respectively, for the years ended December 31, 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 for a price of \$2 million and recorded a \$2 million receivable. The payment will be offset against the license fees LanzaTech would pay to LanzaJet for the use of their

technology in the Company's projects. A license agreement is in process and is expected to be executed in 2025, at which time the Company's \$2 million receivable will be reduced to the extent of payments due and payable under the license agreement. The Company recognized \$231 in deferred profit for the year ended December 31, 2024.

In May 2020, the Company entered into an agreement to lease certain land to a subsidiary of LanzaJet and recognized lease revenue on a straight-line basis over the life of the lease agreement. Refer to *Note 18 - Leases*, for additional information.

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 years ended December 31, 2024 and 2023, the Company recognized revenue of approximately \$454 and \$75, respectively. The Company also provided engineering services and incurred costs of \$1,017 and \$853 for the years ended December 31, 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 sublicensees. Prior to June 2023, the Company was only entitled to royalties from SGLT, if SGLT received sublicense royalty payments. For the year ended December 31, 2024, the Company did not recognize any sublicensing revenue compared to \$1,200 in 2023.

Note 16 - Reportable Segment

The Company operates as one operating segment and therefore one reportable segment, focused on integrated solutions to customers based on its proprietary technology. The determination of the Company's reportable segment is consistent with the financial information regularly reviewed by the chief operating decision maker ("CODM") for purposes of evaluating performance, allocating resources, setting incentive compensation targets, and planning and forecasting for future periods. The Company's chief operating decision maker is its Chief Executive Officer.

The Company's single operating segment generates revenues from its three business lines: (1) biorefining, (2) joint development agreements ("JDAs"), contract research, and (3) CarbonSmart sales, all of which share the Company's technology platforms, research and development infrastructure, and operational resources. Operations and strategies are centralized across the business lines and geographic regions. While the Company operates in various countries, its financial results and operations are viewed on a global basis.

The CODM primarily uses revenue and net loss as reported on the consolidated statements of operations, as the measure of profit or loss to allocate resources during the annual budget and forecasting process. The CODM also uses consolidated net loss, along with financial and non-financial inputs, to evaluate the Company's performance, and make strategic decisions related to headcount and capital expenditures on a consolidated basis.

The measure of segment assets is reported on the balance sheet as total assets. The CODM does not review segment assets at a level other than that presented in the Company's consolidated balance sheets. The table below presents the Company's consolidated operating results including significant segment expenses:

	Year Ended December 31,	
	2024	2023
Consolidated Revenues	\$ 49,592	\$ 62,631
<i>Less</i>		
Consolidated Cost of Sales	25,970	44,979
Salaries and benefits expenses ¹	75,710	77,094
External service providers ¹	29,359	23,803
Other Operating expenses (net of recharges)	27,486	23,135
Net loss from operations	\$ (108,933)	\$ (106,380)
Other expenses, net	(14,564)	(24,816)
Loss from equity method investees, net	(14,234)	(2,902)
Net Loss	\$ (137,731)	\$ (134,098)

(1) including those salaries and benefits and external service providers expenses recharged into cost of sales.

For disaggregation of the Company's revenues by customer location and contract type, please refer to Note 5 - Revenues and for major customers, please refer to Note 2 - Summary of Significant Accounting Policies. Total expenditure on long-lived asset is disclosed in Note 12 - Property, Plant, and Equipment, net. The following table presents long-lived assets by geographic region as of the periods presented:

	As of	
	December 31, 2024	December 31, 2023
United States	\$ 20,729	\$ 20,964
Foreign	1,604	1,859
Total	\$ 22,333	\$ 22,823

Note 17 — 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 December 31, 2024 and December 31, 2023, the Company did 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.

Schara litigation

In May 2024, a putative class action complaint (the “Complaint”) was filed in the Delaware Court of Chancery against LanzaTech f/k/a/ AMCI, AMCI Sponsor II LLC (“AMCI Sponsor”) and the individual directors of AMCI (the “Director Defendants”) for purported damages arising from the February 10, 2023, merger between AMCI and Legacy LanzaTech. The Company was subsequently voluntarily dismissed from the case in July 2024, before it was required to respond to the Complaint. The Complaint asserts claims for (i) breach of fiduciary duty against the Director Defendants; and (ii) unjust enrichment against AMCI Sponsor and the Director Defendants. The parties have not yet engaged in any discovery in connection with the litigation and Defendants have not yet been required to respond to the Complaint. The Company and the defendants believe the allegations and claims made in the Complaint are without merit. As the surviving entity following the merger at issue, the Company has certain indemnification obligations to the Director Defendants in connection with the defense of the litigation. The Company has notified the relevant D&O insurance carriers of the litigation and while the Director Defendants are covered for such costs by directors’ and officers’ insurance, such coverage is subject to a retention of \$5,000.

FPA litigation

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 (the “VWAP Trigger Event”). On July 22, 2024, Vellar (one of the Purchasers) notified the Company of a VWAP Trigger Event, purporting to accelerate the FPA Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 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) Share Consideration of \$2,539, payable in cash, in each case, 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 Trigger Event 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. LanzaTech filed an amended complaint on September 30, 2024. Vellar moved to dismiss, and the motion, which is fully briefed, remains pending. 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. Vellar filed a motion for advancement of fees on November 20, 2024,

which was fully briefed on December 20, 2024 and which remains pending. On April 11, 2025, Vellar filed a motion to amend its complaint, seeking to add a claim for breach of the FPA Warrants, to which LanzaTech and Vellar are parties. The amended complaint seeks damages, including liquidated damages under the FPA Warrants. The motion to amend remains pending.

As of December 31, 2024, the Company did not have sufficient information to predict the outcome of the lawsuits.

Note 18 — Leases

The Company leases certain office space and laboratory facilities. The Company's lease agreements typically do not contain any significant guarantees of asset values at the end of a lease, renewal options or restrictive covenants. Pursuant to ASC 842, *Leases*, all leases are classified as operating leases.

Total operating lease costs and variable lease costs for the years ended December 31, 2024 and 2023 were \$3,641 and \$2,702 and \$3,703 and \$3,205, respectively. Cash paid for amounts included in the measurement of operating lease liabilities for the years ended December 31, 2024 and 2023 was \$1,058 and \$1,857, respectively.

As of December 31, 2024, lease payments for operating leases for the Company's office facility and laboratories was as follows (in thousands):

Year ending December 31,	
2025	\$ (76)
2026	99
2027	4,646
2028	4,612
2029	4,715
Thereafter	36,913
Total future lease payments	\$ 50,909
Less: imputed interest	20,132
Total lease liabilities	<u>\$ 30,777</u>

The following is a summary of weighted average remaining lease term and discount rate for all of the Company's operating leases:

	Years Ended December 31,	
	2024	2023
Weighted average remaining lease term (years)	12.0	12.7
Weighted average discount rate	7.50 %	7.50 %

Lessor accounting

In May 2020, the Company executed an agreement to lease certain land to a subsidiary of LanzaJet for a period of 10 years with an option to renew this lease for five additional periods of one year with minimum annual rent due. This agreement is accounted for as an operating lease. Through August 2024, the lease was amended three times to modify the scope of the renting areas, increase the annual rent and increase the term from 10 years to 12 years with an option to renew this lease for thirteen additional periods of one year. The Company recognizes lease revenue on a straight-line basis over the life of the lease agreement. For the year ended December 31, 2024, we recognized \$155 of revenue included in revenue from related party transactions in the consolidated statements of

operations. The future minimum lease payments owed to the Company from the lease agreement at December 31, 2024, was as follows (in thousands):

Year ending December 31,	
2025	\$ 155
2026	155
2027	155
2028	155
2029	155
Thereafter	932
Total	\$ 1,707

Note 19 — Subsequent Events

Vellar cashless FPA Warrants exercise

On January 23, 2025, the Company issued 1,652,178 shares of common stock pursuant to a cashless exercise of all 2,010,000 FPA Warrants held by Vellar. See *Note 17 - Commitments and Contingencies* for additional information.

Brookfield SAFE Termination and Brookfield Loan execution

On February 14, 2025, LanzaTech and Brookfield entered into a Loan Agreement (the “Loan Agreement”), and concurrently terminated the Brookfield SAFE.

Under the Loan Agreement and effective as of the termination of the Brookfield SAFE, Brookfield was deemed to have loaned to LanzaTech and LanzaTech was deemed to have borrowed from Brookfield \$60,031, representing the \$50,000 initial amount under the Brookfield SAFE plus accrued interest at a rate of 8% per annum, compounded annually from October 2, 2022 to and including February 14, 2025 (the “Loan”). The Loan will accrue interest at a rate of 8% per annum, compounded annually, from February 14, 2025. The initial principal payment of \$12,500 to Brookfield was due on or prior to February 21, 2025 and has been paid. Any remaining outstanding principal amount of the Loan (the “Remaining Amount”), plus accrued interest will be repayable in cash upon the earlier of (i) October 3, 2027, (ii) the occurrence of certain change of control events or (iii) a breach of the Loan Agreement. In addition, for each \$50,000 of aggregate equity funding required for qualifying projects presented to Brookfield in accordance with the Framework Agreement, \$5,000 of the Remaining Amount will be deemed to be repaid.

Take-Private Proposal

On April 3, 2025, the Board received a preliminary, nonbinding proposal from Carbon Direct Capital offering to acquire all of the outstanding shares of our common stock for \$0.02 per share (the “Take-Private Proposal”). Carbon Direct Capital is the holder of the Company’s outstanding \$40,150 Convertible Note, which upon conversion, would entitle it to receive shares of common stock representing approximately 14.6% of the Company’s common stock based on the total number of shares of common stock of the Company outstanding on April 10, 2025. The Strategic Committee of the Board is currently reviewing, evaluating and negotiating the Take-Private Proposal in consultation with the Company’s financial advisor and legal counsel.

Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure

None

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer (“CEO”) and Chief Financial Officer (“CFO”), evaluated the effectiveness of our disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934 (the “Exchange Act”), as of December 31, 2024. Based on that evaluation, the CEO and CFO concluded that as a result of the material weaknesses in our internal control over financial reporting described below, the Company’s disclosure controls and procedures were ineffective as of December 31, 2024.

Notwithstanding the material weaknesses in internal control over financial reporting described above, our management has concluded that our consolidated financial statements included in this Annual Report on Form 10-K are fairly stated in all material respects in accordance with GAAP.

Management's Report on Internal Control Over Financial Reporting

Management, including our CEO and CFO, is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act and based upon the criteria established in the Committee of Sponsoring Organizations of the Treadway Commission (“COSO”) in Internal Control-Integrated Framework (2013). Our internal control over financial reporting includes those policies and procedures designed to, in reasonable detail, accurately and fairly reflect the Company’s transactions, and provide reasonable assurance regarding the reliability of our financial reporting and the preparation of our financial statements for external reporting purposes in accordance with U.S. GAAP.

Our management, including our CEO and CFO, evaluated the effectiveness of our internal control over financial reporting as of December 31, 2024. In making this evaluation, management used the criteria set forth by the COSO framework. Based on this evaluation, management has concluded our internal control over financial reporting as of December 31, 2024 was not effective due to the material weaknesses in the Company’s internal control over financial reporting described below.

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

In our 2023 10-K (as filed with the SEC on February 29, 2024), we disclosed material weaknesses in internal control over financial reporting related to: (i) the accounting for complex transactions and estimates requiring significant judgment, and (ii) revenue recognition. During the audit of our financial statements for the fiscal year ended December 31, 2024, we determined that the material weaknesses in internal control over financial reporting identified as of December 31, 2023 still exist relating to: (i) the accounting for complex transactions and estimates requiring significant judgment and (ii) revenue recognition.

We will continue to assess the allocation of resources necessary to ensure effective controls over revenue recognition and accounting for complex transactions and other areas requiring significant judgment. We have taken and will continue 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.

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

Other than described above, there were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

Securities Trading Plans of Directors and Officers

During the three months ended December 31, 2024, none of our directors or executive 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).

PART III

Item 10. Directors, Executive Officers and Corporate Governance

LanzaTech has adopted a Code of Conduct and Ethics that applies to all officers, directors and employees. The Code of Conduct and Ethics codifies the business and ethical principles that govern all aspects of our business, reflecting our commitment to this culture of honesty, integrity and accountability. In addition to following the Code of Conduct and Ethics, officers, directors and employees are expected to seek guidance in situations where there is a question regarding compliance issues, whether with the letter or the spirit of our policies and applicable laws. LanzaTech’s Code of Conduct and Ethics applies to all of the executive officers, directors and employees of LanzaTech and its subsidiaries. We will provide, without charge, upon request, copies of the Code of Ethics. Our Code of Conduct and Ethics is available on our website. LanzaTech’s website and the information contained on, or that can be accessed through, such website is not deemed to be incorporated by reference in, and are not considered part of, this Annual Report.

The remaining information required by this Item will be included in the Company’s definitive proxy statement, in connection with the solicitation of proxies for the Company’s 2025 annual meeting of shareholders (the “2025 Proxy Statement”), and incorporated herein by reference, or in an amendment to this Annual Report on Form 10-K to be filed within 120 days after December 31, 2024 (“Form 10-K Amendment”).

Item 11. Executive Compensation

The information required by this Item will be included in the 2025 Proxy Statement and incorporated herein by reference or in a Form 10-K Amendment.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The following table shows information, as of December 31, 2024, with respect to shares of our common stock that may be issued under existing equity compensation plans. The category “Equity compensation plans approved by stockholders” in the table below consists of the LanzaTech 2006 Share Option Scheme (the “2006 Scheme”), the LanzaTech NZ, Inc. 2013 Stock Plan (the “2013 Plan”), the LanzaTech NZ, Inc. 2015 Stock Plan (the

“2015 Plan”), the LanzaTech NZ, Inc. 2019 Stock Plan (the “2019 Plan”), and the LanzaTech 2023 Long-Term Incentive Plan (the “2023 Plan”).

	(a)	(b)	(c)
Plan Category	Number of shares to be issued upon exercise of outstanding options, warrants, and rights (1)	Weighted-average exercise price of all outstanding options, warrants, and rights (2)	Number of securities available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (3)
Equity compensation plans approved by security holders	26,513,307	\$ 2.11	13,987,734
Equity compensation plans not approved by security holders	—	—	—
Total	26,513,307	\$ 2.11	13,987,734

(1) Consists of the following: 65,620 shares of common stock subject to outstanding awards changed under the 2006 Scheme 6,496,252 shares of common stock subject to outstanding awards changed under the 2015 plan, 6,131,609 shares of common stock subject to outstanding awards changed under the 2019 Plan, and 13,819,826 shares of common stock subject to outstanding awards changed under the 2023 plan. Performance-based RSUs are, for purposes of this column, assumed to be payable at 100% of target. Following the Business Combination, no additional awards have been or will be granted under the 2006 Scheme or the 2015, and 2019 Plans.

(2) The weighted-average exercise price is calculated solely on the exercise prices of the outstanding options and does not reflect the shares of common stock that will be issued upon the vesting of outstanding awards of RSUs, which have no exercise price.

(3) Consists of shares available under the 2024 plan as of December 31, 2024. The aggregate number of shares will automatically increase on January 1 of each year commencing on January 1, 2024, before the expiration of the 2024 Plan, in an amount equal to 3% of the total number of shares of LanzaTech’s capital stock outstanding on December 31 of the preceding year, unless the Board acts prior to January 1st of a given year to provide that the increase for such year will be a lesser number. The maximum aggregate number of shares which may be issued thereunder pursuant to incentive stock options (“ISOs”) is 760,000,000 shares.

The remaining information required by this Item will be included in the 2025 Proxy Statement and incorporated herein by reference or in a Form 10-K Amendment.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this Item will be included in the 2025 Proxy Statement and incorporated herein by reference or in a Form 10-K Amendment.

Item 14. Principal Accountant Fees and Services

Our independent registered public accounting firm is Deloitte & Touche LLP (PCAOB ID No. 34).

The information required by this Item will be included in the 2025 Proxy Statement, and incorporated herein by reference or in a Form 10-K Amendment.

PART IV

Item 15. Exhibit and Financial Statement Schedules

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) Financial Statements

Our consolidated financial statements are as set forth under Item 8 of this report on Form 10-K.

(2) Financial Statement Schedules.

All schedules have been omitted because they are either not applicable, not required, or the required information has been included in the consolidated financial statements or notes thereto.

(3) Exhibits.

The following list of exhibits includes exhibits submitted with this Form 10-K as filed with the SEC and those incorporated by reference to other filings.

Exhibit	Description
1.1**	<u>At Market Issuance Sale Agreement, dated May 9, 2024 by and between LanzaTech Global, Inc. and B. Riley Securities, Inc. (incorporated by reference to Exhibit 1.2 of LanzaTech Global Inc.'s Registration Statement on Form S-3, filed with the SEC on May 9, 2024).</u>
1.2**	<u>Terms Agreement, dated May 9, 2024, by and between LanzaTech Global, Inc. and B. Riley Securities, Inc. (incorporated by reference to Exhibit 1.3 of LanzaTech Global Inc.'s Registration Statement on Form S-3, filed with the SEC on May 9, 2024).</u>
2.1†**	<u>Merger Agreement, dated as of March 8, 2022, by and among AMCI Acquisition Corp. II, AMCI Merger Sub, Inc. and LanzaTech NZ, Inc. (incorporated by reference to Exhibit 2.1 of AMCI Acquisition Corp. II's Registration Statement on S-4/A, filed with the SEC on January 10, 2023).</u>
2.2**	<u>Amendment No. 1 to Merger Agreement, dated as of December 7, 2022, by and among AMCI Acquisition Corp. II, AMCI Merger Sub, Inc. and LanzaTech NZ, Inc. (incorporated by reference to Exhibit 2.2 of AMCI Acquisition Corp. II's Registration Statement on S-4/A, filed with the SEC on January 10, 2023).</u>
3.1**	<u>Second Amended and Restated Certificate of Incorporation of LanzaTech Global, Inc., (incorporated by reference to Exhibit 3.1 of LanzaTech Global Inc.'s Pre-Effective Amendment No. 1 to Registration Statement on Form S-3, filed with the SEC on October 11, 2024).</u>
3.2**	<u>Certificate of Amendment to the Second Amended and Restated Certificate of Incorporation of LanzaTech Global, Inc. (incorporated by reference to Exhibit 3.1 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on October 8, 2024).</u>
3.3**	<u>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).</u>
4.1**	<u>Warrant Agreement, dated as of August 3, 2021, between AMCI Acquisition Corp. II and Continental Stock Transfer & Trust Company (incorporated by reference to Exhibit 4.1 of AMCI Acquisition Corp. II's Current Report on Form 8-K (File No. 001-40282), filed with the SEC on August 6, 2021).</u>
4.2**	<u>Form of Initial Subscription Agreement (incorporated by reference to Exhibit 10.1 of AMCI Acquisition Corp. II's Registration Statement on S-4/A, filed with the SEC on January 10, 2023).</u>
4.3**	<u>Form of Amendment and Consent of Initial PIPE Investors (incorporated by reference to Exhibit 10.1.1 of AMCI Acquisition Corp. II's Registration Statement on S-4/A, filed with the SEC on January 10, 2023).</u>
4.4**	<u>Form of Additional Subscription Agreement (incorporated by reference to Exhibit 10.40 of AMCI Acquisition Corp. II's Registration Statement on S-4/A, filed with the SEC on January 10, 2023).</u>

- 4.5** [Form of Amendment and Consent of Additional PIPE Investors \(incorporated by reference to Exhibit 10.40.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 4.6** [Subscription Agreement between AMCI Acquisition Corp. II and Oxy Low Carbon Ventures, LLC. \(incorporated by reference to Exhibit 10.1 of AMCI Acquisition Corp. II.'s Current Report on Form 8-K, filed with the SEC on February 7, 2023\).](#)
- 4.7** [Subscription Agreement between AMCI Acquisition Corp. II and Pescadero Capital, LLC. \(incorporated by reference to Exhibit 10.2 of AMCI Acquisition Corp. II.'s Current Report on Form 8-K, filed with the SEC on February 7, 2023\).](#)
- 4.8** [Simple Agreement for Future Equity, dated as of December 8, 2021, by and between LanzaTech NZ, Inc. and ArcelorMittal XCarb S.à r.l. \(incorporated by reference to Exhibit 10.37 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023\).](#)
- 4.9** [SAFE Warrant, dated as of December 7, 2021, from LanzaTech NZ, Inc. to ArcelorMittal XCarb S.à r.l. \(incorporated by reference to Exhibit 4.2 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023\).](#)
- 4.10** [Forward Purchase Agreement, dated February 3, 2023 \(incorporated by reference to Exhibit 10.1 of AMCI's Current Report on Form 8-K \(File No. 001-40282\), filed with the SEC on February 6, 2023\).](#)
- 4.11** [Assignment and Novation Agreement, dated February 3, 2023, by and among AMCI Acquisition Corp. II, LanzaTech NZ, Inc., ACM ARRT H LLC, and and Vellar Opportunity Fund SPV LLC - Series 10. \(incorporated by reference to Exhibit 4.3 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023\).](#)
- 4.12** [Form of FPA \(Shortfall\) Warrant \(incorporated by reference to Exhibit 4.4 to LanzaTech Global, Inc's Current Report on Form 8-K/A, filed with the SEC on March 28, 2023\).](#)
- 4.13** [Form of Amended FPA \(Shortfall\) Warrant \(incorporated by reference to Exhibit 4.12.1 of the Company's Registration Statement on Form S-1/A, filed with the SEC on May 22, 2023.\)](#)
- 4.14** [Form of Convertible Promissory Note \(incorporated by reference to Exhibit 4.1 to LanzaTech Global, Inc's Current Report on Form 8-K, filed with the SEC on August 8, 2024\).](#)
- 4.15** [Description of Securities \(incorporated by reference to Exhibit 4.1 of LanzaTech Global Inc.'s Quarterly Report on Form 10-Q, filed with the SEC on May 9, 2024\).](#)
- 10.1 ** [Form of Convertible Note Purchase Agreement, dated August 5, 2024 \(incorporated by reference to Exhibit 10.1 to LanzaTech Global, Inc's Current Report on Form 8-K, filed with the SEC on August 8, 2024\).](#)
- 10.2** [LanzaTech 2023 Long-Term Incentive Plan \(incorporated by reference to Exhibit 3.3 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023\).](#)
- 10.2.1+** [Form of Stock Option Agreement under the LanzaTech 2023 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.4.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.2.2+** [Form of Time-Vested Restricted Stock Unit Agreement under the LanzaTech 2023 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.4.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.2.3+** [Form of Director Restricted Stock Unit Agreement under the LanzaTech 2023 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.4.3 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.2.4+** [Form of Time- and Performance-Vested Restricted Stock Unit Agreement under the LanzaTech 2023 Long-Term Incentive Plan \(incorporated by reference to Exhibit 10.4.4 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.3** [Registration Rights Agreement, by and among LanzaTech Global, Inc., LanzaTech NZ, Inc., AMCI Sponsor II LLC, and the holders identified on Schedule I thereto \(incorporated by reference to Exhibit 2.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.4#** [Exclusive Patent License Agreement, dated September 13, 2018, by and between Battelle Memorial Institute and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.12 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)

- 10.6#** [Letter Amendment 1, dated January 13, 2020, between Battelle Memorial Institute and LanzaTech, Inc \(incorporated by reference to Exhibit 10.12.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.7#** [Clarification Letter, dated April 24, 2020, between Battelle Memorial Institute and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.12.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.8#†** [Amended and Restated Investment Agreement, dated April 2, 2021, by and among LanzaTech, Inc., LanzaJet, Inc., Mitsui & Co., Ltd., Suncor Energy Inc., British Airways PLC and Shell Ventures LLC \(incorporated by reference to Exhibit 10.13 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.9#†** [Intellectual Property and Technology License Agreement, dated May 28, 2020, between LanzaTech, Inc. and LanzaJet, Inc. \(incorporated by reference to Exhibit 10.14 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.10#†** [Amended and Restated Stockholders' Agreement, dated April 2, 2021, by and among LanzaJet, Inc., LanzaTech, Inc., Mitsui & Co., Ltd., Suncor Energy Inc., British Airways PLC, and Shell Ventures LLC. \(incorporated by reference to Exhibit 10.15 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.11#** [Amended and Restated Alliance Agreement, dated February 15, 2022, by and between LanzaTech NZ, Inc. and Mitsui & Co., Ltd. \(incorporated by reference to Exhibit 10.16 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.11.1#** [Amendment No. 1 to Amended and Restated Alliance Agreement, dated March 24, 2022, by and between LanzaTech NZ, Inc. and Mitsui & Co., Ltd. \(incorporated by reference to Exhibit 10.16.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.11.2#** [Amendment No. 2 to Amended and Restated Alliance Agreement, dated October 2, 2022, by and between LanzaTech NZ, Inc. and Mitsui & Co., Ltd. \(incorporated by reference to Exhibit 10.16.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.12#** [Articles of Association of Beijing Shougang LanzaTech Technology Co., Ltd. \(incorporated by reference to Exhibit 10.17 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.13** [Side Letter Agreement, dated November 3, 2021, by and among Beijing Shougang LanzaTech Technology Co., Ltd., Mitsui & Co., Ltd., and LanzaTech Hong Kong Limited \(incorporated by reference to Exhibit 10.18 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.14#** [2021 Intellectual Property Rights License Agreement, dated September 6, 2021, between Beijing Shougang LanzaTech Technology Co., Ltd. and LanzaTech Hong Kong Limited \(incorporated by reference to Exhibit 10.19 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.14.1** [Amendment No. 1 to 2021 Intellectual Property License Agreement, dated January 14, 2022, between Beijing Shougang LanzaTech Technology Co., Ltd. and LanzaTech Hong Kong Limited \(incorporated by reference to Exhibit 10.19.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.15#** [Letter Agreement, dated April 12, 2021, among LanzaTech New Zealand Limited, LanzaTech Hong Kong Limited, Sinopec Capital Co, Ltd and Beijing Shougang-LanzaTech Technology Co., Ltd. \(incorporated by reference to Exhibit 10.20 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.16#†** [Grant Agreement, dated October 7, 2020, among the European Climate, Infrastructure and Environmental Executive Agency, SkyNRG BV, RSB Roundtable on Sustainable Biomaterials Association, LanzaTech BV, E4tech UK Ltd, and Fraunhofer Gesellschaft zur Forderung der Angewandten Forschung E.V. \(incorporated by reference to Exhibit 10.21 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.17#** [Memorandum of Understanding, dated June 20, 2018, between Sekisui Chemical Co., Ltd. and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.22 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)

- 10.18#** [Term Sheet, dated February 21, 2020, between Sekisui Chemical Co., Ltd. and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.23 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.19#** [Letter of Agreement, dated December 4, 2017, between LanzaTech, Inc. and IndianOil Corporation Limited \(incorporated by reference to Exhibit 10.24 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.20#** [Master Licensing Agreement, dated October 6, 2020, between Suncor Energy Inc. and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.25 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.20.1** [Amendment No. 1 to Master Licensing Agreement, dated October 2, 2022, between Suncor Energy Inc. and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.25.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.21+** [Executive Employment Agreement, dated April 20, 2010, between Dr. Jennifer Holmgren and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.26 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.21.1+** [Letter from LanzaTech, Inc. to Dr. Jennifer Holmgren, dated May 17, 2021. \(incorporated by reference to Exhibit 10.26.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.21.2+†** [Executive Employment Agreement, dated December 20, 2022, between Dr. Jennifer Holmgren and LanzaTech Global, Inc. \(incorporated by reference to Exhibit 10.26.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.22+** [Employment Agreement, dated October 21, 2013, between Dr. Sean Simpson and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.27 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.22.1+** [Letter from LanzaTech, Inc. to Dr. Sean Simpson, dated January 6, 2020 \(incorporated by reference to Exhibit 10.27.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.22.2+†** [Transition Letter, entered into on January 2, 2023, between Dr. Sean Simpson and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.27.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.22.3+†** [Consulting Agreement, entered into on January 2, 2023, between Dr. Sean Simpson and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.27.3 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.23+** [Employment Agreement, dated May 28, 2021, between Geoff Trukenbrod and LanzaTech, Inc. \(incorporated by reference to Exhibit 10.28 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.23.1+†** [Executive Employment Agreement, dated December 21, 2022, between Geoff Trukenbrod and LanzaTech Global, Inc. \(incorporated by reference to Exhibit 10.28.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.24+** [Deed Poll Relating to Option Schemes Established by LanzaTech New Zealand Limited and LanzaTech New Zealand Limited 2006 Share Option Scheme \(incorporated by reference to Exhibit 10.29 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.24.1+** [Deed of Amendment to Deed Poll Relating to Option Schemes Established by LanzaTech New Zealand Limited, dated September 12, 2011 \(incorporated by reference to Exhibit 10.29.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.24.2+** [Deed of Amendment to Deed Poll Relating to Option Schemes Established by LanzaTech New Zealand Limited, dated January 8, 2016 \(incorporated by reference to Exhibit 10.29.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.24.3+** [Deed of Amendment to Deed Poll Relating to Option Schemes Established by LanzaTech New Zealand Limited, dated October 28, 2021 \(incorporated by reference to Exhibit 10.29.3 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.25+** [LanzaTech New Zealand Limited 2011 Stock Plan. \(incorporated by reference to Exhibit 10.30 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)

- 10.25.1+** [Form of Stock Option Agreement under the LanzaTech New Zealand Limited 2011 Stock Plan \(incorporated by reference to Exhibit 10.30.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.25.2+** [Form of Stock Option Agreement under the LanzaTech New Zealand Limited 2011 Stock Plan \(New Zealand employees\) \(incorporated by reference to Exhibit 10.30.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.26+** [LanzaTech New Zealand Limited 2013 Stock Plan \(incorporated by reference to Exhibit 10.31 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.26.1+** [Form of Stock Option Agreement under the LanzaTech New Zealand Limited 2013 Stock Plan \(incorporated by reference to Exhibit 10.31.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.26.2+** [Form of Stock Option Agreement under the LanzaTech New Zealand Limited 2013 Stock Plan \(New Zealand employees\) \(incorporated by reference to Exhibit 10.31.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.27+** [LanzaTech New Zealand Limited 2015 Stock Plan \(incorporated by reference to Exhibit 10.32 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.27.1+** [Form of Stock Option Agreement under the LanzaTech New Zealand Limited 2015 Stock Plan \(incorporated by reference to Exhibit 10.32.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.28+** [LanzaTech NZ, Inc. 2019 Stock Plan \(incorporated by reference to Exhibit 10.33 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.28.1+†** [Form of Notice of Grant and Subscription for Stock Option under the LanzaTech NZ, Inc. 2019 Stock Plan \(incorporated by reference to Exhibit 10.33.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.28.2+†** [Form of Notice of Restricted Stock Grant under the LanzaTech NZ, Inc. 2019 Stock Plan \(incorporated by reference to Exhibit 10.33.2 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.28.3+** [Form of Stock Option Agreement under the LanzaTech NZ, Inc. 2019 Stock Plan \(incorporated by reference to Exhibit 10.33.3 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.29+** [Amendment to LanzaTech New Zealand Limited Stock Option Award Agreements, dated October 28, 2021 \(incorporated by reference to Exhibit 10.34 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.30+** [Annual Bonus Plan \(incorporated by reference to Exhibit 10.35 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.31+** [Form of indemnification agreement between LanzaTech Global, Inc. and each of its directors and officers \(incorporated by reference to Exhibit 10.36 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.32#†** [Framework Agreement, dated as of October 2, 2022, by and between LanzaTech, Inc. and BGTF LT Aggregator LP \(incorporated by reference to Exhibit 10.37 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.33#** [Cooperation Letter Agreement, dated as of October 2, 2022, by and between LanzaTech, Inc., Suncor Energy, Inc. and BGTF LT Aggregator LP \(incorporated by reference to Exhibit 10.39 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.34+** [LanzaTech U.S. Executive Severance Plan \(incorporated by reference to Exhibit 10.41 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023\).](#)
- 10.35†#** [Grant Agreement, by and between LanzaTech UK Limited and the Secretary of State for Transport, dated December 12, 2022 \(incorporated by reference to Exhibit 10.1 of AMCI Acquisition Corp. II.'s Current Report on Form 8-K \(File No. 001-40282\), filed with the SEC on December 16, 2022\).](#)

10.36†***	Note Purchase Agreement, dated November 9, 2022, by and among LanzaJet Freedom Pines Fuels LLC, LanzaTech, Inc. and the other purchasers named therein (incorporated by reference to Exhibit 10.43 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023).
10.37+**	Form of director compensation letter (incorporated by reference to Exhibit 10.41 to LanzaTech Global, Inc's Current Report on Form 8-K/A, filed with the SEC on March 28, 2023).
10.38**	Form of Registration Rights Agreement, dated August 5, 2024 (incorporated by reference to Exhibit 10.2 to LanzaTech Global, Inc's Current Report on Form 8-K, filed with the SEC on August 8, 2024).
10.39**	Joint Venture Agreement, dated November 11, 2023, by Olayan Financing Company and LanzaTech, Inc. (incorporated by reference to Exhibit 10.1 on LanzaTech Global, Inc's Quarterly Report on Form 10-Q, filed with the SEC on August 8, 2024).
10.40**	Deed of Amendment and Novation Relating to the Joint Venture Agreement, dated April 16, 2024, by Olayan Financing Company and LanzaTech, Inc and Saudi Arabian Construction & Repair Company LTD (incorporated by reference to Exhibit 10.2 on LanzaTech Global, Inc's Quarterly Report on Form 10-Q, filed with the SEC on August 8, 2024).
10.41**	Loan Agreement, dated as of February 14, 2025, by and among BGTF LT Aggregator LP, LanzaTech NZ, Inc., LanzaTech, Inc. and LanzaTech Global, Inc. (incorporated by reference to Exhibit 10.1 to LanzaTech Global, Inc's Current Report on Form 8-K, filed with the SEC on February 20, 2025).
10.42**	Termination Agreement, dated as of February 14, 2025, by and among BGTF LT Aggregator LP, LanzaTech NZ, Inc., LanzaTech, Inc. and LanzaTech Global, Inc. (incorporated by reference to Exhibit 10.2 to LanzaTech Global, Inc's Current Report on Form 8-K, filed with the SEC on February 20, 2025).
16.1**	Letter re: Change in certifying accountant (incorporated by reference to Exhibit 16.1 to LanzaTech Global Inc.'s Current Report on Form 8-K/A, filed with the SEC on March 28, 2023).
19.1	Insider Trading Policy
21.1**	Subsidiaries of the Registrant (incorporated by reference to Exhibit 21.1 to LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023).
23	Consent of Deloitte & Touche LLP, independent registered public accounting firm to LanzaTech Global, Inc.
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) under the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) under the Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
97**	LanzaTech Clawback Policy (incorporated by reference to Exhibit 97 to LanzaTech Global, Inc's Annual Report on Form 10-K, filed with the SEC on February 29, 2024).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

† Certain of the exhibits and schedules to this exhibit have been omitted in accordance with Regulation S-K Item 601(a)(5). The Registrant agrees to furnish a copy of all omitted exhibits and schedules to the SEC upon its request.

* To be filed by amendment.

** Previously filed.

Certain confidential information contained in this exhibit, marked by brackets, has been redacted in accordance with Regulation S-K Item 601(b) because the information (i) is not material and (ii) is the type of information that the registrant both customarily and actually treats as private and confidential.

+ Management contract or compensatory plan or arrangement.

Item 16. Form 10–K Summary

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, as amended, the registrant has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Skokie, State of Illinois, on April 15, 2025.

LANZATECH GLOBAL, INC.

By: /s/ Jennifer Holmgren, Ph.D.

Name: Jennifer Holmgren, Ph.D.

Title: Chief Executive Officer and Director

Pursuant to the requirements of the Securities Exchange Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated:

<u>Name</u>	<u>Position</u>	<u>Date</u>
<u>/s/ Jennifer Holmgren, Ph.D.</u> Jennifer Holmgren, Ph.D.	Chief Executive Officer and Director (Principal Executive Officer)	April 15, 2025
<u>/s/ Justin Pugh</u> Justin Pugh	Chief Financial Officer (Principal Financial Officer)	April 15, 2025
<u>/s/ Sushmita Koyanagi</u> Sushmita Koyanagi	Chief Accounting Officer (Principal Accounting Officer)	April 15, 2025
<u>/s/ Barbara Byrne</u> Barbara Byrne	Director	April 15, 2025
<u>/s/ Nigel Gormly</u> Nigel Gormly	Director	April 15, 2025
<u>/s/ Dorri McWhorter</u> Dorri McWhorter	Director	April 15, 2025
<u>/s/ Jim Messina</u> Jim Messina	Director	April 15, 2025
<u>/s/ Gary Rieschel</u> Gary Rieschel	Director	April 15, 2025
<u>Thierry Pilenko</u>	Director	
<u>Reyad Fezzani</u>	Director	
<u>Jill Frizzley</u>	Director	