

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

**PRE-EFFECTIVE
AMENDMENT NO 1. TO
FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933**

LanzaTech Global, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

8731
(Primary Standard Industrial
Classification Code Number)

92-2018969
(I.R.S. Employer
Identification Number)

**8045 Lamon Avenue, Suite 400
Skokie, Illinois 60077
Tel: (847) 324-2400**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Joe Blasko
8045 Lamon Avenue, Suite 400
Skokie, Illinois 60077
Tel: (847) 324-2400**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:
**Kerry S. Burke
Brian Rosenzweig
Covington & Burling LLP
One CityCenter
Washington, D.C. 20001
Tel: (202) 662-6000**

Approximate date of commencement of proposed sale to the public: From time to time after this registration statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

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

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

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the registration statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains three prospectuses:

- a base prospectus, which covers the offering, issuance and sale, from time to time, of our common stock, preferred stock, debt securities, warrants, subscription rights and units, in one or more offerings, with an aggregate initial offering price of \$300,000,000; and
- a prospectus for selling stockholders, which covers (i) the issuance by us of up to 23,403,989 shares of our common stock issuable upon the exercise of certain convertible securities and (ii) the offering and sale of up to 226,840,670 shares of our common stock and up to 8,857,762 warrants to purchase our common stock that may be sold in one or more secondary offerings by the selling stockholders from time to time.
- a sales agreement prospectus, which covers the offering, issuance and sale of up to \$100,000,000 of our common stock that may be issued and sold under an At Market Issuance Sales Agreement, dated as of May 9, 2024, with B. Riley Securities, Inc.

The base prospectus immediately follows this explanatory note. The specific terms of any securities to be offered pursuant to the base prospectus will be specified in a prospectus supplement to the base prospectus.

The prospectus for selling stockholders immediately follows the base prospectus. The 23,403,989 shares of our common stock that may be issued by us under the prospectus for selling stockholders is exclusive of the \$300,000,000 of securities that may be offered, issued and sold by us under the base prospectus.

The sales agreement prospectus immediately follows the prospectus for selling stockholders. The \$100,000,000 of shares of common stock that may be offered, issued and sold by us under the sales agreement prospectus is included in the \$300,000,000 of securities that may be offered, issued and sold by us under the base prospectus. Upon termination of the sales agreement, any portion of the \$100,000,000 included in the sales agreement prospectus that is not sold pursuant to the sales agreement will be available for sale in other offerings pursuant to the base prospectus and an accompanying prospectus supplement, and if no shares are sold under the sales agreement, the full \$100,000,000 of securities may be sold in other offerings pursuant to the base prospectus and an accompanying prospectus supplement.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor is it soliciting an offer to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to completion, dated October 11, 2024

PROSPECTUS

\$300,000,000

LanzaTech

**Common Stock
Preferred Stock
Warrants
Debt Securities
Subscription Rights
Units**

From time to time, we may offer and sell up to \$300,000,000 in the aggregate of the securities identified above, either individually or in combination, at prices and on terms described in one or more supplements to this prospectus. We may also offer securities as may be issuable upon conversion, redemption, repurchase, exchange or exercise of any securities registered hereunder, including any applicable anti-dilution provisions.

This prospectus describes the general terms of these securities and the general manner in which they may be offered. Each time we offer any securities pursuant to this prospectus, we will provide you with a prospectus supplement that will describe the specific amounts, prices and terms of the securities being offered and the specific manner in which they may be offered. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should read this prospectus, the information incorporated by reference in this prospectus, the accompanying prospectus supplement, including any information incorporated by reference therein, and any applicable free writing prospectus carefully before you invest in the securities described in the applicable prospectus supplement.

Our common stock and our warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “LNZA” and “LNZAW”, respectively. On October 4, 2024, the last reported sales price of our common stock was \$2.04 per share. The applicable prospectus supplement will contain information, where applicable, as to other listings, if any, on the Nasdaq Capital Market or other securities exchange of the securities covered by the prospectus supplement.

We may offer and sell these securities to or through one or more underwriters, dealers and agents, directly to purchasers or through a combination of these methods, on a continuous or delayed basis from time to time. See “Plan of Distribution” in this prospectus and in the applicable prospectus supplement. The names of any underwriters, dealers or agents involved in the distribution of our securities, their compensation and any option they hold to acquire additional securities will be described in the applicable prospectus supplement. Net proceeds from the sale of securities will be set forth in the applicable prospectus supplement.

We are incorporated in Delaware and our headquarters are in Skokie, Illinois. We are not a company that was formed under the laws of the People’s Republic of China. However, we have business operations in China, several strategic investors located in China, including Sinopec Capital Co., Ltd. (“Sinopec”), and a core team of technical, business and administrative professionals at our office in Shanghai, which support the ongoing operations and further growth of the business in China. We also hold a minority ownership stake in Beijing Shougang LanzaTech Technology Co., Ltd. (the “Shougang Joint Venture”). 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. For more information on the Shougang Joint Venture, see the section entitled “*Business Overview — Key Collaboration Agreements — Shougang Joint Venture*” included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

We have determined the Shougang Joint Venture to be a variable interest entity (“VIE”) for which we are not the primary beneficiary. This VIE structure was implemented 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. We had previously determined that we were able to exercise significant influence, but no control, over the Shougang Joint Venture through our equity holdings in the Shougang Joint Venture, our representation on the VIE’s board of directors and participation in the policy-making process. Although we have the right to appoint and elect, and currently have appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between us, the Shougang Joint Venture and Sinopec do not provide us with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore we do not consolidate the Shougang Joint Venture in our financial statements. On September 30, 2022, we determined that we no longer had significant influence over the operating and financial policies of the Shougang Joint Venture due to the significant decrease in the Shougang Joint Venture’s technological dependence on us.

Although we are incorporated and headquartered in the United States, we may still be subject to certain PRC laws due to our business operations in China. We face risks and uncertainties associated with complex and evolving PRC laws and regulations and as to whether and how recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to us or our operations. Any application of these statements or regulatory actions to us or our operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in our operations or in the value of the shares of our common stock. For more information, see the risks and uncertainties described under the caption “**Risk Factors**” beginning on page 12 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to our license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., our wholly owned subsidiary. As of the date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. We have not in the past and do not intend in the future to distribute to our stockholders any amounts that we receive from the Shougang Joint Venture. For more information, see our audited financial statements incorporated by reference in this prospectus.

Our auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the Public Company Accounting Oversight Board (the “PCAOB”) on December 16, 2021 regarding the PCAOB’s inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to us.

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks and uncertainties described under the caption “Risk Factors**” beginning on page 12 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.**

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the U.S. Securities and Exchange Commission (“SEC”), using the “shelf” registration process under the Securities Act of 1933, as amended (the “Securities Act”). Under this shelf registration statement, we may offer and sell from time to time, separately or together, any combination of our common stock, preferred stock, warrants, debt securities, subscription rights, and units in one or more offerings at an aggregate offering price of up to \$300,000,000. The preferred stock, debt securities, warrants, subscription rights and units may be convertible into, or exercisable or exchangeable for, our common or preferred stock or other securities issued by us.

This prospectus provides you with a general description of the securities we may offer. Each time we offer and sell securities, we will provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading “*Where You Can Find More Information.*” We may also prepare free writing prospectuses that describe particular securities. Any free writing prospectus should also be read in connection with this prospectus and any prospectus supplement referred to therein. For purposes of this prospectus, any reference to an applicable prospectus supplement may also refer to a free writing prospectus, unless the context otherwise requires.

Unless the context indicates otherwise, references in this prospectus to the “Company,” “LanzaTech,” “we,” “us,” “our” and similar terms refer to LanzaTech Global, Inc. (formerly known as AMCI Acquisition Corp. II) and its consolidated subsidiaries (including LanzaTech NZ, Inc.). References to “PRC” or “China” refer to the People’s Republic of China, which, solely for the purpose of this prospectus, exclude Taiwan and the special administrative regions of Hong Kong and Macau. We have no operations in Taiwan, Hong Kong, or Macau; however, the legal and operational risks associated with operating in China that are described in this prospectus also apply to any operations in Hong Kong and Macau.

This prospectus describes the terms of this offering also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus) the statement in the document having the later date modifies or supersedes the earlier statement. The information contained in this prospectus or any free writing prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our shares of common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

The registration statement of which this prospectus forms a part, including the exhibits to the registration statement, contains additional information about us and the securities offered under this prospectus. The registration statement can be obtained from the SEC’s website, www.sec.gov. Copies of information filed by us with the SEC are also available on our website at <https://lanzatech.com>. The reference to our website is not intended to be an active link and the information on, or that can be accessed through, our website is not, and you must not consider the information to be, a part of this prospectus or any other filings we make with the SEC.

We have not authorized anyone to provide you with information that is different from or in addition to the information contained in this prospectus or in any applicable prospectus supplement or in any related free writing prospectus. Accordingly, we take no responsibility for, or can provide any assurance as to the reliability of, any information that others may provide. You should not assume that the information in this prospectus, any applicable prospectus supplement or any free writing prospectus that we have prepared is accurate as of any date other than the date of those documents, and that any information in documents that we have incorporated by reference is accurate only as of the date of such document, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

The distribution of this prospectus and any applicable prospectus supplement and the offering of the securities in certain jurisdictions may be restricted by law. Persons who obtain this prospectus and any applicable prospectus supplement should inform themselves about, and observe, any such restrictions. This prospectus and any applicable prospectus supplement do not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

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

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

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” and elsewhere in this prospectus. Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for the management of LanzaTech to predict all risks, nor can we assess the

impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus.

The forward-looking statements included in this prospectus 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 does not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this prospectus, and the documents that have been filed as exhibits to the registration statement of which this prospectus forms a part, and any accompanying prospectus supplement 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.

MARKET, INDUSTRY AND OTHER DATA

Certain information contained in this document relates to or is based on studies, publications, surveys and other data obtained from third-party sources and LanzaTech's own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this prospectus, we have not independently verified the market and industry data contained in this prospectus or the underlying assumptions relied on therein. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and our securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You can read our SEC filings, including the registration statement, over the internet at the SEC's website at www.sec.gov.

We are subject to the information reporting requirements of the Exchange Act, and we file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for review at the SEC's website at www.sec.gov. We also maintain a website at www.lanzatech.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. LanzaTech's website and the information contained on, or that can be accessed through, such website are not deemed to be incorporated by reference in, and are not considered part of, this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus and should be read with the same care. When we update the information contained in documents that have been incorporated by reference by making future filings with the SEC, the information incorporated by reference into this prospectus is considered to be automatically updated and superseded. In other words, in all cases, if you are considering whether to rely on information contained in this prospectus or information incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed later. We incorporate by reference (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein) the documents listed below (File No. 001-40282 unless otherwise stated), which are considered to be a part of this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2023, filed with the SEC on February 29, 2024 (including the portions of our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 29, 2024, incorporated by reference therein);
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2024, filed with the SEC on August 8, 2024;
- our Current Reports on Form 8-K filed with the SEC on [February 28, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [March 25, 2024](#), [April 29, 2024](#), [May 9, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [June 20, 2024](#), [July 1, 2024](#), [July 26, 2024](#), and [August 8, 2024](#) (second filed), [October 1, 2024](#), [October 8, 2024](#) and [October 10, 2024](#) (excluding Item 7.01); and
- the description of our common stock contained in [Exhibit 4.1](#) of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024.

All reports and other documents we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until our offering is completed, including all such reports and other documents filed with the SEC after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement, will also be incorporated by reference into this prospectus and deemed to be part hereof (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein). The information contained in any such filing will be deemed to be a part of this prospectus commencing on the date on which the document is filed.

Any documents incorporated by reference into this prospectus are available without charge to you, upon written request by contacting our Investor Relations department at Investor Relations, LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077.

THE COMPANY

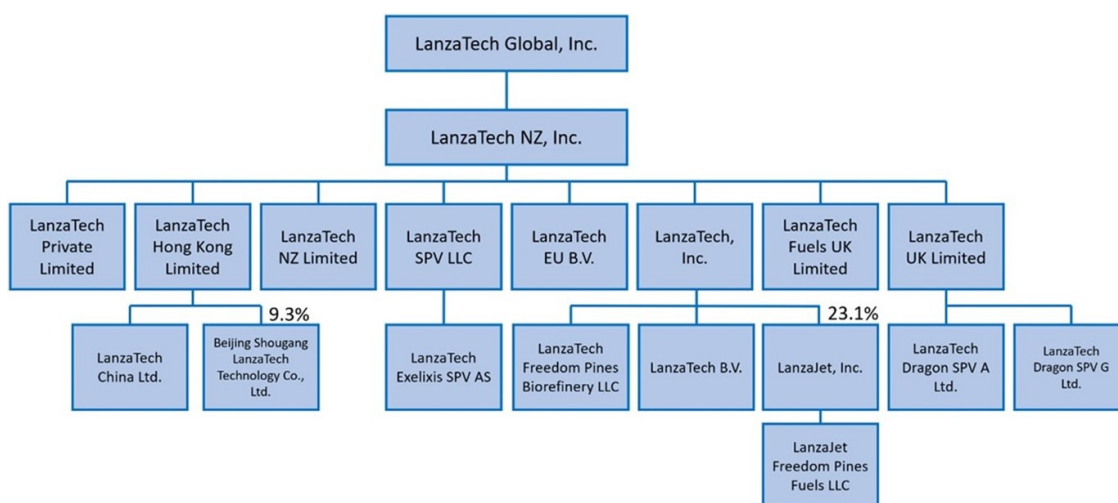
LanzaTech is a nature-based carbon refining company that transforms waste carbon into the chemical building blocks for consumer goods such as sustainable fuels, fabrics, and packaging that people use in their daily lives. Using LanzaTech's process technology, LanzaTech's partners started up the world's first commercial carbon refining plant in 2018 in China. Since then, LanzaTech's partners in China have started up an additional three commercial plants operating in China, one in April 2021, another in September 2022, and the last one in June 2023. Additionally, LanzaTech's partners have started up a commercial scale plant in India in September 2023 and in Belgium in November 2023. LanzaTech has numerous projects under development and in the pipeline globally. LanzaTech's technology platform is designed to use a variety of waste feedstocks, from waste industrial gases to biomass residues and municipal solid waste. LanzaTech's technology platform is designed to capitalize on the demand for sustainable fuels and chemicals, which can be used in multiple sectors such as aviation, automotive, textiles, home goods, consumer goods and others, to address the growing preference among major companies for environmentally conscious products and manufacturing processes.

LanzaTech is incorporated in Delaware and its headquarters are in Skokie, Illinois. LanzaTech is not a company that was formed under the laws of the PRC. However, LanzaTech has 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. LanzaTech also holds a minority ownership stake in the Shougang Joint Venture. LanzaTech licenses its 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 three commercial scale facilities using LanzaTech's process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products. For more information on the Shougang Joint Venture, see the section entitled "*Business Overview — Key Collaboration Agreements — Shougang Joint Venture*" included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and the corresponding sections of any prospectus supplement.

LanzaTech has determined the Shougang Joint Venture to be a VIE for which LanzaTech is not the primary beneficiary. LanzaTech holds its equity interest in the Shougang Joint Venture through its subsidiary, LanzaTech Hong Kong Limited, a limited liability company organized under the laws of Hong Kong. LanzaTech Hong Kong Limited is not a wholly foreign-owned enterprise ("WFOE") organized under the laws of the PRC. This VIE structure was implemented to effectuate the intellectual property licensing arrangement between LanzaTech 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.

LanzaTech also has a subsidiary, LanzaTech China Limited, which is a WFOE organized under the laws of the PRC. This subsidiary employs the professionals that work in LanzaTech's office in Shanghai. LanzaTech China Limited does not hold an equity interest in the Shougang Joint Venture, or in any other VIE in China.

The following chart illustrates the organizational structure of LanzaTech and its subsidiaries as of the date of this prospectus:



LanzaTech has entered into a license agreement with the Shougang Joint Venture and a letter agreement with the Shougang Joint Venture and Sinopec. Although LanzaTech has the right to appoint and elect, and currently has appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between LanzaTech, the Shougang Joint Venture and Sinopec do not provide LanzaTech with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore, LanzaTech does not consolidate the Shougang Joint Venture in its financial statements. LanzaTech may incur substantial costs to enforce the terms of the agreements. LanzaTech may also face challenges enforcing its contractual arrangements with the Shougang Joint Venture due to legal uncertainties and jurisdictional limits.

Although LanzaTech is incorporated and headquartered in the United States, LanzaTech may still be subject to certain PRC laws due to its business operations in China. LanzaTech faces risks and uncertainties associated with the complex and evolving PRC laws and regulations and as to whether and how the recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to LanzaTech and its operations. Any application of these statements or regulatory actions to LanzaTech and its operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in LanzaTech’s operations and could result in a material change in the value of the shares of the common stock.

If (i) LanzaTech does not receive or maintain any permission or approval required of it, (ii) LanzaTech inadvertently concludes that certain permissions or approvals have been acquired or are not required, or (iii) applicable laws, regulations, or interpretations thereof change and LanzaTech becomes subject to the requirement of additional permissions or approvals in the future, LanzaTech may have to expend significant time and costs to procure them. If LanzaTech is unable to do so, on commercially reasonable terms, in a timely manner or otherwise, LanzaTech may become subject to sanctions imposed by the PRC regulatory authorities, which could include fines and penalties, proceedings against LanzaTech, and other forms of sanctions, and LanzaTech’s business, reputation, financial condition, and results of operations may be materially and adversely affected. For more information, see the risks and uncertainties described under the caption “[Risk Factors](#)” beginning on page 12 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to LanzaTech’s license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., a wholly owned subsidiary of LanzaTech. As of the

date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. LanzaTech has not in the past and does not intend in the future to distribute to its stockholders any amounts that it receives from the Shougang Joint Venture. For more information, see the audited financial statements of LanzaTech incorporated by reference in this prospectus.

There are no restrictions or limitations on

- foreign exchange;
- LanzaTech's ability to transfer cash between entities, across borders, or to U.S. investors;
- LanzaTech's ability to distribute earnings from the company, including its subsidiaries, to the holding company or U.S. investors; or
- LanzaTech's ability to settle amounts owed under agreements with the Shougang Joint Venture.

LanzaTech's auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the PCAOB on December 16, 2021 regarding the PCAOB's inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to LanzaTech.

Additional information about us and our subsidiaries is included in documents incorporated by reference in this prospectus. See "*Where You Can Find More Information*" and "*Incorporation by Reference*."

Business Combination

On February 8, 2023 (the "Closing Date"), LanzaTech NZ, Inc. ("Legacy LanzaTech") and AMCI Acquisition Corp. II ("AMCI") 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.

Corporate Information

We were incorporated in Delaware on January 28, 2021, under the name AMCI Acquisition Corp. II, 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, AMCI and Legacy LanzaTech consummated the transactions contemplated by the Merger Agreement. On the Closing Date, AMCI changed its name to LanzaTech Global, Inc.

Our common stock is traded on Nasdaq under the symbol "LNZA." The mailing address of our principal executive office is 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, and our telephone number is (847) 324-2400. Our website address is <https://lanzatech.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus. We make available free of charge on our website our annual,

quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

RISK FACTORS

Investing in securities issued by us involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Before deciding whether to invest in our securities, you should consider carefully the risks described under the heading “Risk Factors” in the applicable prospectus supplement and in any of our filings with the SEC that are incorporated by reference therein.

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds from the sale of our securities offered by this prospectus. Unless we indicate otherwise in the applicable prospectus supplement, we anticipate that any net proceeds will be used for working capital and general corporate purposes, including expenses related to funding research and development expenses for our clinical trials and pre-clinical studies, manufacturing and other costs associated with advancing our product candidates. We will set forth in the applicable prospectus supplement our intended use for the net proceeds received from the sale of any securities sold pursuant to the prospectus supplement. Pending these uses, we intend to invest the net proceeds in short-term U.S. treasury money market mutual funds.

DESCRIPTION OF COMMON STOCK

We may issue, separately or together with, or upon conversion, exercise or exchange of other securities, shares of our common stock as set forth in the applicable prospectus supplement. The following section describes the material features and rights of our common stock, \$0.0001 par value per share, and does not purport to be complete. It is subject to, and qualified in its entirety by reference to, our second amended and restated certificate of incorporation, as amended (the “Charter”) and our Bylaws (the “Bylaws”) and applicable provisions of the Delaware General Corporation Law (“DGCL”). Each of our Charter and Bylaws is incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part.

General

The Charter authorizes the issuance of 620,000,000 shares, consisting of 600,000,000 shares of common stock, \$0.0001 par value per share, and 20,000,000 shares of preferred stock, \$0.0001 par value per share. As of October 4, 2024, there were 197,782,055 shares of our common stock outstanding. No shares of preferred stock are currently outstanding.

Common Stock

The Charter provides the following with respect to the rights, powers, preferences and privileges of the common stock.

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of shares of common stock possess all voting power for the election of LanzaTech’s directors and all other matters requiring stockholder action. Holders of shares of common stock are entitled to one vote for each share held on all matters to be voted on by stockholders.

Dividends

Holders of shares of common stock will be entitled to receive such dividends, if any, as may be declared from time to time by the Board in its discretion out of funds legally available therefor. We do not intend to pay cash dividends on the common stock for the foreseeable future. Any payment of cash dividends in the future will be dependent upon LanzaTech’s revenues and earnings, if any, capital requirements and general financial conditions. In no event will any stock dividends or stock splits or combinations of stock be declared or made on shares of common stock unless the shares of common stock at the time outstanding are treated equally and identically.

Liquidation, Dissolution and Winding Up

In the event of LanzaTech’s voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of shares of common stock will be entitled to receive an equal amount per share of all of LanzaTech’s assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock have been satisfied.

Preemptive or Other Rights

The LanzaTech stockholders have no preemptive or other subscription rights. No sinking fund provisions are applicable to the common stock.

Registration Rights

AMCI, certain of the Legacy LanzaTech stockholders and certain AMCI stockholders entered into a registration rights agreement, pursuant to which, among other things, such stockholders were granted certain registration rights with respect to certain shares of securities held by them.

Listing of Common Stock

Our common stock is listed on Nasdaq under the symbol “LNZA”.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

DESCRIPTION OF PREFERRED STOCK

Pursuant to the Charter, our board of directors has the authority, without stockholder approval, subject to limitations prescribed by law, to provide for the issuance of up to 20,000,000 shares of preferred stock in one or more series, and by filing a certificate pursuant to the applicable law of the State of Delaware, to establish from time to time the number of shares to be included in each such series, and to fix the voting rights, if any, designations, powers, preferences and relative, participating, optional, special and other rights of the shares of each series and any qualifications, limitations or restrictions thereof.

We will fix the voting rights, designations, preferences and rights of the preferred stock of each series, as well as the qualifications, limitations or restrictions thereof, in the certificate of designation relating to such series. We will file an exhibit to the registration statement of which this prospectus forms a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

- the title and stated value;
- the number of shares offered;
- the liquidation preference per share;
- the purchase price per share;
- the dividend rate(s), period(s) and/or payment date(s) or method(s) of calculation for dividends;
- whether dividends are cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
- our right, if any, to defer payment of dividends and the maximum length of such deferral period;
- the procedures for auction and remarketing, if any;
- the provisions for a sinking fund, if any;
- the provision for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
- any listing of the preferred stock on any securities exchange or market;
- the terms and conditions, if applicable, upon which the preferred stock will be convertible into common stock, including the conversion price (or manner of calculation) and conversion period;
- whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
- voting rights, if any, of the preferred stock;
- preemptive rights, if any;
- restrictions on transfer, sale or other assignment, if any;
- whether interests in the preferred stock will be represented by depositary shares;
- a discussion of any material and/or special U.S. federal income tax considerations applicable to the preferred stock;
- the relative ranking and preferences of the preferred stock as to dividend rights and rights upon the liquidation, dissolution or winding up of our affairs;

- any limitations on issuance of any class or series of preferred stock ranking senior to or on a parity with the class or series of preferred stock as to dividend rights and rights upon liquidation, dissolution or winding up of our affairs; and
- any other specific terms, preferences, rights, limitations or restrictions of the preferred stock.

Our board of directors could authorize the issuance of shares of preferred stock with terms and conditions that could have the effect of discouraging a takeover or other transaction that might involve a premium price for holders of the shares or which holders might believe to be in their best interests. The issuance of preferred stock could adversely affect the voting power, conversion or other rights of holders of common stock and reduce the likelihood that common stockholders will receive dividend payments and payments upon liquidation.

The laws of the State of Delaware provide that the holders of preferred stock will have the right to vote separately as a class on any proposal involving fundamental changes to the rights of holders of such preferred stock. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

The transfer agent and registrar for any series of preferred stock will be set forth in the applicable prospectus supplement.

Certain Anti-Takeover Provisions of Delaware Law and our Charter and Bylaws

Charter and Bylaws

Among other things, the Charter and Bylaws:

- permit the Board to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that the number of directors of LanzaTech may be changed only by resolution of the Board;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may be removed only with cause by the holders of at least 66⅔% of all of LanzaTech's then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of LanzaTech's stockholders may be called by the Board pursuant to a resolution adopted by a majority of the Board;
- provide that the Board will be divided into three classes of directors, with the classes to be as nearly equal as possible, and with the directors serving three-year terms, therefore making it more difficult for stockholders to change the composition of the Board; and
- do not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The combination of these provisions will make it more difficult for the existing stockholders to replace the Board as well as for another party to obtain control of LanzaTech by replacing the Board. Because the Board has the power to retain and discharge its officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for the Board to issue shares of preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of LanzaTech.

These provisions are intended to enhance the likelihood of continued stability in the composition of the Board and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce LanzaTech's vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for LanzaTech's shares and may have the effect of delaying changes in its control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of LanzaTech's Common Stock.

Certain Anti-Takeover Provisions of Delaware Law

LanzaTech is subject to the provisions of Section 203 of the DGCL, which prevents certain Delaware corporations, under certain circumstances, from engaging in a "business combination" with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an "interested stockholder");
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A "business combination" includes a merger or sale of more than 10% of a corporation's assets. However, the above provisions of Section 203 would not apply if:

- the relevant board of directors approves the transaction that made the stockholder an interested stockholder prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of the corporation's voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the initial business combination is approved by the board of directors and authorized at a meeting of the corporation's stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

These provisions may have the effect of delaying, deferring, or preventing changes in control of LanzaTech.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors of corporations and their stockholders for monetary damages for breaches of directors' fiduciary duties, subject to certain exceptions. The Charter includes a provision that eliminates the personal liability of directors for damages for any breach of fiduciary duty as a director where, in civil proceedings, the person acted in good faith and in a manner that person reasonably believed to be in or not opposed to the best interests of LanzaTech or, in criminal proceedings, where the person had no reasonable cause to believe that his or her conduct was unlawful.

The Bylaws provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We are also expressly authorized to carry directors' and officers' liability insurance providing indemnification for our directors, officers, and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, advancement and indemnification provisions in the Charter and Bylaws may discourage stockholders from bringing lawsuits against directors for breaches of their fiduciary duties. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your

investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officer pursuant to these indemnification provisions.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, stockholders will have appraisal rights in connection with a merger or consolidation of LanzaTech. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in LanzaTech's name to procure a judgment in LanzaTech's favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

DESCRIPTION OF DEBT SECURITIES

We may issue, separately or together with, or upon conversion, exercise or exchange of other securities, debt securities, including debentures, notes, bonds and other evidences of indebtedness as set forth in the applicable prospectus supplement. The debt securities may be either secured or unsecured and will either be senior debt securities or subordinated debt securities. Senior debt securities will be issued under a senior indenture between us and a trustee to be specified in an accompanying prospectus supplement. Subordinated debt securities will be issued under a subordinated indenture between us and a trustee to be specified in an accompanying prospectus supplement. Together, the senior indenture and the subordinated indenture are called indentures in this description. This prospectus, together with the applicable prospectus supplement, will describe the terms of a particular series of debt securities that we may offer from time to time.

The following summary of the material provisions of the indentures and the debt securities does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the provisions of the applicable indenture and certificates evidencing the applicable debt securities. Therefore, you should carefully consider the applicable indenture and the certificate evidencing the applicable debt security that is filed as an exhibit to the registration statement that includes this prospectus. Other specific terms of the applicable indenture and debt securities will be described in the applicable prospectus supplement. If any particular terms of the indenture or debt securities described in a prospectus supplement differ from any of the terms described below, then the terms described below will be deemed to have been superseded by that prospectus supplement. In this description of the debt securities, the words “LanzaTech,” “we,” “us” or “our” refer only to LanzaTech Global, Inc. and not to our subsidiary, unless we otherwise expressly state or the context otherwise requires.

General

Debt securities may be issued in separate series without limitation as to aggregate principal amount. We may specify a maximum aggregate principal amount for the debt securities of any series.

We are not limited as to the amount of debt securities that we may issue under the indentures. Unless otherwise provided in a prospectus supplement, a series of debt securities may be reopened to issue additional debt securities of such series.

The prospectus supplement relating to a particular series of debt securities will set forth the material terms of the debt securities being offered, including:

- the title of the debt securities and whether they are senior debt securities or subordinated debt securities;
- the offering price;
- the person who will be entitled to receive interest, if other than the record holder on the record date;
- the maturity date or dates;
- the interest rate or rates, if any, which may be fixed or variable, at which the debt securities will bear interest, or the method of determining such rate or rates;
- the date from which interest will accrue, the interest payment dates and the regular record dates, or the method for calculating the dates and rates;
- the place or places where payments of principal and interest may be made;
- any mandatory or optional redemption provisions or sinking fund provisions and any applicable redemption or purchase prices associated with these provisions;
- if issued other than in denominations of \$1,000 or any multiple of \$1,000, the denominations in which the debt securities shall be issuable;

- if applicable, the method for determining how the principal, premium, if any, or interest will be calculated by reference to an index or formula;
- if other than U.S. currency, the currency or currency units in which principal, premium, if any, or interest will be payable, whether we or a holder may elect payment to be made in a different currency and the designation of the original currency determination agent;
- the portion of the principal amount that will be payable upon acceleration of maturity, if other than the entire principal amount;
- if the principal amount payable at stated maturity will not be determinable as of any date prior to stated maturity, the amount or method for determining the amount which will be deemed to be the principal amount;
- if applicable, whether the debt securities shall be subject to the defeasance provisions described below under “Satisfaction and Discharge; Defeasance” or such other defeasance provisions specified in the applicable prospectus supplement for the debt securities;
- any conversion or exchange provisions;
- whether the debt securities will be issuable in the form of a global security;
- any subordination provisions applicable to the subordinated debt securities if different from those described below under “Subordinated Debt Securities”;
- any paying agents, authenticating agents, security registrars or other agents for the debt securities, if other than the trustee;
- any provisions relating to any security provided for the debt securities, including any provisions regarding the circumstances under which collateral may be released or substituted;
- any deletions of, or changes or additions to, the events of default, acceleration provisions or covenants;
- any provisions relating to guaranties for the securities and any circumstances under which there may be additional obligors; and
- any other specific terms of such debt securities.

If we denominate the purchase price of any of the debt securities in a foreign currency or currencies, or if the principal of or premium, if any, or interest on any series of debt securities is payable in a foreign currency or currencies, we will include in the applicable prospectus supplement information on the restrictions, elections, material federal income tax considerations, specific terms and other information with respect to that issue of debt securities and the foreign currency or currencies.

Unless otherwise specified in the prospectus supplement, the debt securities will be registered debt securities. Debt securities may be sold at a substantial discount below their stated principal amount, bearing no interest or interest at a rate which at the time of issuance is below market rates. The U.S. federal income tax considerations applicable to debt securities sold at a discount will be described in the applicable prospectus supplement.

Exchange and Transfer

Debt securities may be transferred or exchanged at the office of the security registrar or at the office of any transfer agent designated by us.

We will not impose a service charge for any transfer or exchange, but we may require holders to pay any tax or other governmental charges associated with any transfer or exchange.

In the event of any partial redemption of debt securities of any series, we will not be required to:

- issue, register the transfer of or exchange any debt security of that series during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt security of that series selected for redemption, in whole or in part, except the unredeemed portion being redeemed in part.

Under any indenture, we will initially appoint the trustee as the security registrar. Any transfer agent, in addition to the security registrar initially designated by us, will be named in the prospectus supplement. We may designate additional transfer agents or change transfer agents or change the office of the transfer agent. However, we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

Conversion or Exchange

If any debt securities being offered are convertible into or exchangeable for our common stock or other securities, the relevant prospectus supplement will set forth the terms of conversion or exchange. Those terms will include whether conversion or exchange is mandatory, at the option of the holder or at our option, and the number of shares of common stock or other securities, or the method of determining the number of shares of common stock or other securities, to be received by the holder upon conversion or exchange. These provisions may allow or require the number of shares of our common stock or other securities to be received by the holders of such series of debt securities to be adjusted.

Global Securities

The debt securities of any series may be represented, in whole or in part, by one or more global securities. Each global security will:

- be registered in the name of a depositary, or its nominee, that we will identify in a prospectus supplement;
- be deposited with the depositary or nominee or custodian; and
- bear any required legends.

No global security may be exchanged in whole or in part for debt securities registered in the name of any person other than the depositary or any nominee unless:

- the depositary has notified us that it is unwilling or unable to continue as depositary or has ceased to be qualified to act as depositary;
- an event of default has occurred and is continuing with respect to the debt securities of the applicable series; or
- any other circumstance described in a prospectus supplement has occurred permitting or requiring the issuance of any such security.

As long as the depositary, or its nominee, is the registered owner of a global security, the depositary or nominee will be considered the sole owner and holder of the debt securities represented by the global security for all purposes under the indentures. Except in the above limited circumstances, owners of beneficial interests in a global security will not be:

- entitled to have the debt securities registered in their names;
- entitled to physical delivery of certificated debt securities; or
- considered to be holders of those debt securities under the indenture.

Payments on a global security will be made to the depositary or its nominee as the holder of the global security. Some jurisdictions have laws that require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to transfer beneficial interests in a global security.

Institutions that have accounts with the depositary or its nominee are referred to as “participants.” Ownership of beneficial interests in a global security will be limited to participants and to persons that may hold beneficial interests through participants. The depositary will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants.

Ownership of beneficial interests in a global security will be shown on and effected through records maintained by the depositary, with respect to participants’ interests, or any participant, with respect to interests of persons held by participants on their behalf.

Payments, transfers and exchanges relating to beneficial interests in a global security will be subject to policies and procedures of the depositary. The depositary policies and procedures may change from time to time. Neither any trustee nor we will have any responsibility or liability for the depositary’s or any participant’s records with respect to beneficial interests in a global security.

Payment and Paying Agents

Unless otherwise indicated in a prospectus supplement, the provisions described in this paragraph will apply to the debt securities. Payment of interest on a debt security on any interest payment date will be made to the person in whose name the debt security is registered at the close of business on the regular record date. Payment on debt securities of a particular series will be payable at the office of a paying agent or paying agents designated by us. However, at our option, we may pay interest by mailing a check to the record holder. The trustee will be designated as our initial paying agent.

We may also name any other paying agents in a prospectus supplement. We may designate additional paying agents, change paying agents or change the office of any paying agent. However, we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All moneys paid by us to a paying agent for payment on any debt security that remain unclaimed for a period ending the earlier of:

- 10 business days prior to the date the money would be turned over to the applicable state; or
- at the end of two years after such payment was due, will be repaid to us thereafter.

The holder may look only to us for such payment.

No Protection in the Event of a Change of Control

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any provisions that may afford holders of the debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction, whether or not such transaction results in a change in control.

Covenants

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, the debt securities will not contain any financial or restrictive covenants.

Consolidation, Merger and Sale of Assets

Unless otherwise indicated in a prospectus supplement with respect to a particular series of debt securities, we may not consolidate with or merge into any other person, in a transaction in which we are not the surviving corporation, or convey, transfer or lease our properties and assets substantially as an entirety to, any entity, unless:

- the successor entity, if any, is a corporation, limited liability company, partnership, trust or other business entity existing under the laws of the United States, any State within the United States or the District of Columbia;
- the successor entity assumes our obligations on the debt securities and under the applicable indenture;
- immediately after giving effect to the transaction, no default or event of default shall have occurred and be continuing; and
- certain other conditions specified in the indenture are met.

Events of Default

Unless we indicate otherwise in a prospectus supplement with respect to a particular series of debt securities, the following will be events of default for any series of debt securities under the indentures:

- (1) we fail to pay any interest on any debt security of that series when it becomes due and we subsequently fail to pay such interest for 30 days;
- (2) we fail to pay principal of or any premium on any debt security of that series when due;
- (3) we fail to deposit any sinking fund payment when due;
- (4) we fail to perform any other covenant in the applicable indenture and such failure continues for 90 days after we are given the notice required in the indentures; and
- (5) certain events including our bankruptcy, insolvency or reorganization.

Additional or different events of default applicable to a series of debt securities may be described in a prospectus supplement. An event of default of one series of debt securities is not necessarily an event of default for any other series of debt securities.

The trustee may withhold notice to the holders of any default, except defaults in the payment of principal, premium, if any, interest, any sinking fund installment on, or with respect to any conversion right of, the debt securities of such series. However, the trustee must consider it to be in the interest of the holders of the debt securities of such series to withhold this notice.

Unless we indicate otherwise in a prospectus supplement, if an event of default, other than an event of default described in clause (5) above, shall occur and be continuing with respect to any series of debt securities, either the trustee or the holders of at least 25% in aggregate principal amount of the outstanding securities of that series may declare the principal amount and premium, if any, of the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, to be due and payable immediately.

If an event of default described in clause (5) above shall occur, the principal amount and premium, if any, of all the debt securities of that series, or if any debt securities of that series are original issue discount securities, such other amount as may be specified in the applicable prospectus supplement, in each case together with accrued and unpaid interest, if any, thereon, will automatically become immediately due and payable without any declaration or other action on the part of the trustee or any holder. Any payment by us on the subordinated debt securities following any such acceleration will be subject to the subordination provisions described below under "Subordinated Debt Securities."

After acceleration, the holders of a majority in aggregate principal amount of the outstanding securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, or other specified amounts or interest, have been cured or waived.

Other than the duty to act with the required care during an event of default, the trustee will not be obligated to exercise any of its rights or powers at the request of the holders unless the holders shall have offered to the trustee reasonable indemnity. Generally, the holders of a majority in aggregate principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee.

A holder of debt securities of any series will not have any right to institute any proceeding under the indentures, or for the appointment of a receiver or a trustee, or for any other remedy under the indentures, unless:

- (1) the holder has previously given to the trustee written notice of a continuing event of default with respect to the debt securities of that series;
- (2) the holders of at least 25%, with respect to senior debt securities, and a majority, with respect to subordinated debt securities, in aggregate principal amount of the outstanding debt securities of that series have made a written request and have offered reasonable indemnity to the trustee to institute the proceeding; and
- (3) the trustee has failed to institute the proceeding and has not received direction inconsistent with the original request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series within 60 days after the original request.

Holders may, however, sue to enforce the payment of principal, premium or interest on any debt security on or after the due date or to enforce the right, if any, to convert any debt security (if the debt security is convertible) without following the procedures listed in clauses (1) through (3) above.

We will furnish the trustee an annual statement by our officers as to whether or not we are in default in the performance of the conditions and covenants under the indenture and, if so, specifying all known defaults.

Modification and Waiver

Unless we indicate otherwise in a prospectus supplement, we and the applicable trustee may make modifications and amendments to an indenture with the consent of the holders of a majority in aggregate principal amount of the outstanding securities of each series affected by the modification or amendment.

We may also make modifications and amendments to the indentures for the benefit of holders without their consent, for certain purposes including, but not limited to:

- providing for our successor to assume the covenants under the indenture;
- adding covenants or events of default;
- making certain changes to facilitate the issuance of the securities;
- securing the securities, including provisions relating to the release or substitution of collateral;
- providing for guaranties of, or additional obligors on, the securities;
- providing for a successor trustee or additional trustees;
- curing any ambiguities or inconsistencies;
- permitting or facilitating the defeasance and discharge of the securities; and
- other changes specified in the indenture.

However, neither we nor the trustee may make any modification or amendment without the consent of the holder of each outstanding security of that series affected by the modification or amendment if such modification or amendment would:

- change the stated maturity of any debt security;
- reduce the principal, premium, if any, or interest on any debt security or any amount payable upon redemption or repurchase, whether at our option or the option of any holder, or reduce the amount of any sinking fund payments;
- reduce the principal of an original issue discount security or any other debt security payable on acceleration of maturity;
- change the place of payment or the currency in which any debt security is payable;
- impair the right to enforce any payment after the stated maturity or redemption date;
- if subordinated debt securities, modify the subordination provisions in a materially adverse manner to the holders;
- adversely affect the right to convert any debt security if the debt security is a convertible debt security; or
- change the provisions in the indenture that relate to modifying or amending the indenture.

Satisfaction and Discharge; Defeasance

We may be discharged from our obligations on the debt securities, subject to limited exceptions, of any series that have matured or will mature or be redeemed within one year if we deposit enough money with the trustee to pay all of the principal, interest and any premium due to the stated maturity date or redemption date of the debt securities.

Each indenture contains a provision that permits us to elect either or both of the following:

- (1) We may elect to be discharged from all of our obligations, subject to limited exceptions, with respect to any series of debt securities then outstanding. If we make this election, the holders of the debt securities of the series will not be entitled to the benefits of the indenture, except for the rights of holders to receive payments on debt securities or the registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities.
- (2) We may elect to be released from our obligations under some or all of any financial or restrictive covenants applicable to the series of debt securities to which the election relates and from the consequences of an event of default resulting from a breach of those covenants.

To make either of the above elections, we must irrevocably deposit in trust with the trustee enough money to pay in full the principal, interest and premium on the debt securities. This amount may be made in cash and/or U.S. government obligations or, in the case of debt securities denominated in a currency other than U.S. dollars, cash in the currency in which such series of securities is denominated and/or foreign government obligations. As a condition to either of the above elections, for debt securities denominated in U.S. dollars we must deliver to the trustee an opinion of counsel that the holders of the debt securities will not recognize income, gain or loss for U.S. federal income tax purposes as a result of the action.

“Foreign government obligations” means, with respect to debt securities of any series that are denominated in a currency other than United States dollars:

- direct obligations of the government that issued or caused to be issued the currency in which such securities are denominated and for the payment of which obligations its full faith and credit is pledged, or, with respect to debt securities of any series which are denominated in euros, direct obligations of certain

members of the European Union for the payment of which obligations the full faith and credit of such members is pledged, which in each case are not callable or redeemable at the option of the issuer thereof;

- obligations of a person controlled or supervised by or acting as an agency or instrumentality of a government described in the bullet above, the timely payment of which is unconditionally guaranteed as a full faith and credit obligation by such government, which are not callable or redeemable at the option of the issuer thereof; or
- any depository receipt issued by a bank as custodian with respect to any obligation specified in the first two bullet points and held by such bank for the account of the holder of such deposit any receipt, or with respect to any such obligation which is so specified and held.

Notices

Notices to holders will be given by mail to the addresses of the holders in the security register.

Governing Law

The indentures and the debt securities will be governed by, and construed under, the laws of the State of New York.

No Personal Liability of Directors, Officers, Employees and Shareholders

No incorporator, shareholder, employee, agent, officer, director or subsidiary of ours will have any liability for any obligations of ours, or because of the creation of any indebtedness under the debt securities, the indentures or supplemental indentures. The indentures provide that all such liability is expressly waived and released as a condition of, and as a consideration for, the execution of such indentures and the issuance of the debt securities.

Regarding the Trustee

The indentures limit the right of the trustee, should it become our creditor, to obtain payment of claims or secure its claims.

The trustee is permitted to engage in certain other transactions with us. However, if the trustee acquires any conflicting interest, and there is a default under the debt securities of any series for which it is trustee, the trustee must eliminate the conflict or resign.

The accompanying prospectus supplement will specify the trustee for the particular series of debt securities to be issued under the indentures.

Subordinated Debt Securities

The following provisions will be applicable with respect to each series of subordinated debt securities, unless otherwise stated in the prospectus supplement relating to that series of subordinated debt securities.

The indebtedness evidenced by the subordinated debt securities of any series is subordinated, to the extent provided in the subordinated indenture and the applicable prospectus supplement, to the prior payment in full, of all senior debt, including any senior debt securities, in cash or other payment satisfactory to the holders of senior debt.

Upon any distribution of our assets upon any dissolution, winding up, liquidation or reorganization, whether voluntary or involuntary, marshalling of assets, assignment for the benefit of creditors, or in bankruptcy, insolvency, receivership or other similar proceedings, payments on the subordinated debt securities will be subordinated in right of payment to the prior payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt.

In the event of any acceleration of the subordinated debt securities of any series because of an event of default with respect to the subordinated debt securities of that series, holders of any senior debt would be entitled to

payment in full in cash or other payment satisfactory to holders of senior debt of all senior debt before the holders of subordinated debt securities are entitled to receive any payment or distribution.

In addition, the subordinated debt securities will be structurally subordinated to all indebtedness and other liabilities of our subsidiaries, including trade payables and lease obligations. This occurs because our right to receive any assets of our subsidiaries upon their liquidation or reorganization, and your right to participate in those assets, will be effectively subordinated to the claims of that subsidiary's creditors, including trade creditors, except to the extent that we are recognized as a creditor of such subsidiary. If we are recognized as a creditor of that subsidiary, our claims would still be subordinate to any security interest in the assets of the subsidiary and any indebtedness of the subsidiary senior to us.

We are required to promptly notify holders of senior debt or their representatives under the subordinated indenture if payment of the subordinated debt securities is accelerated because of an event of default.

Under the subordinated indenture, we may also not make payment on the subordinated debt securities if:

- a default in our obligations to pay principal, premium, if any, interest or other amounts on our senior debt occurs and the default continues beyond any applicable grace period, which we refer to as a payment default; or
- a nonpayment default occurs and is continuing with respect to designated senior debt that permits holders of designated senior debt to accelerate its maturity, and the trustee receives a payment blockage notice from us or some other person permitted to give the notice under the subordinated indenture, which we refer to as a non-payment default.

We may and shall resume payments on the subordinated debt securities:

- in case of a payment default, when the default is cured or waived or ceases to exist; and
- in case of a nonpayment default, the earlier of when the default is cured or waived or ceases to exist or 179 days after the receipt of the payment blockage notice.

No new payment blockage period may start on the basis of a nonpayment default unless at least 365 days have elapsed from the initial effectiveness of the immediately prior payment blockage notice. No nonpayment default that existed or was continuing on the date of delivery of any payment blockage notice to the trustee shall be the basis for a subsequent payment blockage notice.

As a result of these subordination provisions, in the event of our bankruptcy, dissolution or reorganization, holders of senior debt may receive more, ratably, and holders of the subordinated debt securities may receive less, ratably, than our other creditors. The subordination provisions will not prevent the occurrence of any event of default under the subordinated indenture.

The subordination provisions will not apply to payments from money or government obligations held in trust by the trustee for the payment of principal, interest and premium, if any, on subordinated debt securities pursuant to the provisions described under "Satisfaction and Discharge; Defeasance," if the subordination provisions were not violated at the time the money or government obligations were deposited into trust.

If the trustee or any holder receives any payment that should not have been made to them in contravention of subordination provisions before all senior debt is paid in full in cash or other payment satisfactory to holders of senior debt, then such payment will be held in trust for the holders of senior debt.

Senior debt securities will constitute senior debt under the subordinated indenture.

Additional or different subordination provisions may be described in a prospectus supplement relating to a particular series of debt securities.

Definitions

“*Designated senior debt*” means our obligations under any particular senior debt in which the instrument creating or evidencing the same or the assumption or guarantee thereof, or related agreements or documents to which we are a party, expressly provides that such indebtedness shall be designated senior debt for purposes of the subordinated indenture. The instrument, agreement or other document evidencing any designated senior debt may place limitations and conditions on the right of such senior debt to exercise the rights of designated senior debt.

“*Indebtedness*” means the following, whether absolute or contingent, secured or unsecured, due or to become due, outstanding on the date of the indenture for such series of securities or thereafter created, incurred or assumed:

- our indebtedness evidenced by a credit or loan agreement, note, bond, debenture or other written obligation;
- all of our obligations for borrowed money;
- all of our obligations evidenced by a note or similar instrument given in connection with the acquisition of any businesses, properties or assets of any kind,
- our obligations:
 - as lessee under leases required to be capitalized on the balance sheet of the lessee under generally accepted accounting principles, or
 - as lessee under other leases for facilities, capital equipment or related assets, whether or not capitalized, entered into or leased for financing purposes;
- all of our obligations under interest rate and currency swaps, caps, floors, collars, hedge agreements, forward contracts or similar agreements or arrangements;
- all of our obligations with respect to letters of credit, bankers’ acceptances and similar facilities, including reimbursement obligations with respect to the foregoing;
- all of our obligations issued or assumed as the deferred purchase price of property or services, but excluding trade accounts payable and accrued liabilities arising in the ordinary course of business;
- all obligations of the type referred to in the above clauses of another person and all dividends of another person, the payment of which, in either case, we have assumed or guaranteed, for which we are responsible or liable, directly or indirectly, jointly or severally, as obligor, guarantor or otherwise, or which are secured by a lien on our property; and
- renewals, extensions, modifications, replacements, restatements and refundings of, or any indebtedness or obligation issued in exchange for, any such indebtedness or obligation described in the above clauses of this definition.

“*Senior debt*” means the principal of, premium, if any, and interest, including all interest accruing subsequent to the commencement of any bankruptcy or similar proceeding, whether or not a claim for post-petition interest is allowable as a claim in any such proceeding, on, and all fees and other amounts payable in connection with, our indebtedness. Senior debt shall not include:

- any debt or obligation if its terms or the terms of the instrument under which or pursuant to which it is issued expressly provide it shall not be senior in right of payment to the subordinated debt securities or expressly provide that such indebtedness is on the same basis or “junior” to the subordinated debt securities; or
- debt to any of our subsidiaries.

“*Subsidiary*” means an entity more than 50% of the outstanding voting stock of which is owned, directly or indirectly, by us or by one or more of our other subsidiaries or by a combination of us and our other subsidiaries. For

purposes of this definition, “voting stock” means stock or other similar interests to us which ordinarily has or have voting power for the election of directors, or persons performing similar functions, whether at all times or only so long as no senior class of stock or other interests has or have such voting power by reason of any contingency

Certain Considerations Relating to Foreign Currencies

Debt securities denominated or payable in foreign currencies may entail significant risks. These risks include the possibility of significant fluctuations in the foreign currency markets, the imposition or modification of foreign exchange controls and potential illiquidity in the secondary market. These risks will vary depending upon the currency or currencies involved and will be described in the applicable prospectus supplement.

DESCRIPTION OF WARRANTS

We may issue warrants to purchase common stock, preferred stock or debt securities and be issued in one or more series. Warrants may be offered independently or in combination with common stock, preferred stock or debt securities offered by any prospectus supplement. While the terms we have summarized below will apply generally to any warrants that we may offer under this prospectus, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The following description of warrants will apply to the warrants offered by this prospectus unless we provide otherwise in the applicable prospectus supplement. The applicable prospectus supplement for a particular series of warrants may specify different or additional terms.

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the warrants that we may offer under this prospectus. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant and/or the warrant agreement and warrant certificate, as applicable, that describe the terms of the particular series of warrants we are offering, and any supplemental agreements, before the issuance of such warrants. The following summaries of material terms and provisions of the warrants are subject to, and qualified in their entirety by reference to, all the provisions of the form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements applicable to a particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplement related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete form of warrant and/or the warrant agreement and warrant certificate, as applicable, and any supplemental agreements, that contain the terms of the warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such securities or each principal amount of such security;
- in the case of warrants to purchase debt securities, the principal amount of debt securities purchasable upon exercise of one warrant and the price at, and currency in which, this principal amount of debt securities may be purchased upon such exercise;
- in the case of warrants to purchase common stock or preferred stock, the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the date on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- a discussion of any material or special U.S. federal income tax considerations of holding or exercising the warrants;

- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including:

- in the case of warrants to purchase debt securities, the right to receive payments of principal of, or premium, if any, or interest on, the debt securities purchasable upon exercise or to enforce covenants in the applicable indenture; or
- in the case of warrants to purchase common stock or preferred stock, the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. The warrants may be exercised as set forth in the prospectus supplement relating to the warrants offered. Unless we otherwise specify in the applicable prospectus supplement, warrants may be exercised at any time up to the close of business on the expiration date set forth in the prospectus supplement relating to the warrants offered thereby. After the close of business on the expiration date, unexercised warrants will become void.

Upon receipt of payment and the warrant or warrant certificate, as applicable, properly completed and duly executed by the warrant agent, if any, or any other office, including ours, indicated in the prospectus supplement, we will, as soon as practicable, issue and deliver the securities purchasable upon such exercise. If less than all of the warrants (or the warrants represented by such warrant certificate) are exercised, a new warrant or a new warrant certificate, as applicable, will be issued for the remaining warrants.

Governing Law

Unless we otherwise specify in the applicable prospectus supplement, the warrants and any warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent, if any, will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF SUBSCRIPTION RIGHTS

We may issue subscription rights to purchase shares of our common stock or preferred stock. These subscription rights may be issued independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the subscription rights in such offering. In connection with any offering of subscription rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

The prospectus supplement relating to any offering of subscription rights will include specific terms relating to the offering, including:

- the price, if any, for the subscription rights;
- the exercise price payable for each share of common stock or preferred stock upon the exercise of the subscription rights;
- the number of subscription rights to be offered to each shareholder;
- the number and terms of the shares of common stock or preferred stock which may be purchased per each subscription right;
- the extent to which the subscription rights are transferable;
- any other terms of the subscription rights, including the procedures and limitations relating to the exchange and exercise of the subscription rights;
- the dates on which the right to exercise the subscription rights shall commence and expire;
- the extent to which the subscription rights may include an over-subscription privilege with respect to unsubscribed securities or an over-allotment privilege to the extent the securities are fully subscribed; and
- if applicable, the material terms of any standby underwriting or purchase arrangement that we may enter into in connection with the offering of subscription rights.

The preceding summary of the terms of the subscription rights does not purport to be complete and is subject to, and is qualified in its entirety by reference to, the terms of the subscription rights being offered, as well as any applicable subscription rights certificate and the terms of the securities to which the subscription rights relate. Therefore, you should carefully consider the actual provisions of the subscription right, and subscription agreement and the applicable securities.

DESCRIPTION OF UNITS

We may issue units comprising one or more securities described in this prospectus in any combination. The following description sets forth certain general terms and provisions of the units that we may offer pursuant to this prospectus. The particular terms of the units and the extent, if any, to which the general terms and provisions may apply to the units so offered will be described in the applicable prospectus supplement.

Each unit will be issued so that the holder of the unit also is the holder of each security included in the unit. Thus, the unit will have the rights and obligations of a holder of each included security. Units will be issued pursuant to the terms of a unit agreement, which may provide that the securities included in the unit may not be held or transferred separately at any time or at any time before a specified date. A copy of the forms of the unit agreement and the unit certificate relating to any particular issue of units will be filed with the SEC each time we issue units, and you should read those documents for provisions that may be important to you.

The prospectus supplement relating to any particular issuance of units will describe the terms of those units, including, to the extent applicable, the following:

- the designation and terms of the units and the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provision for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units; and
- whether the units will be issued in fully registered or global form.

PLAN OF DISTRIBUTION

We may sell the securities offered under this prospectus from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods or through underwriters, dealers or agents or directly to one or more purchasers. The securities may be distributed from time to time in one or more transactions (or in any combination) at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to the prevailing market price; or
- negotiated prices.

For each type and series of securities offered, the applicable prospectus supplement will set forth the terms of the offering, including, without limitation:

- the public offering price;
- the names of any underwriters, dealers or agents and the amount of securities underwritten or purchased by each of them, if any;
- any delayed delivery arrangements;
- the proceeds from the sale of securities to us and the use of proceeds from the sale of the securities;
- any underwriting discounts, concessions, commissions, agency fees or other compensation payable to underwriters, dealers or agents;
- any discounts or concessions allowed or re-allowed or repaid to dealers;
- estimated offering expenses; and
- the securities exchanges on which the securities will be listed, if any.

We may grant underwriters options to purchase additional securities at the public offering price, with additional underwriting commissions or discounts, as applicable, set forth in the prospectus supplement. The terms of any such option will be set forth in the prospectus supplement for those securities.

Underwriters or agents may make sales in privately negotiated transactions and/or any other method permitted by law, including sales deemed to be an “at-the-market” offering as defined in Rule 415 under the Securities Act, which includes sales made directly on Nasdaq, the existing trading market for our common stock, or sales made to or through a market maker other than on an exchange.

We may issue to our existing security holders, through a dividend or similar distribution, rights to purchase shares of our common stock or preferred stock, which may or may not be transferable. In any distribution of rights to our existing security holders, if all of the underlying securities are not subscribed for, we may then sell the unsubscribed securities directly to third parties or may engage the services of one or more underwriters, dealers or agents, including standby underwriters, to facilitate the distribution of the unsubscribed securities. The applicable prospectus supplement will describe the specific terms of any offering of our common stock or preferred stock through the issuance of rights including, if applicable, the material terms of any standby underwriting agreement or purchase agreement.

Sales Through Underwriters, Dealers or Agents; Direct Sales

If we use underwriters in any sale of securities offered under this prospectus, the underwriters will buy the securities for their own account, including through underwriting, purchase, security lending or repurchase

agreements with us. The underwriters may then resell the securities in one or more transactions at a fixed public offering price or at varying prices determined at the time of sale or thereafter. Unless otherwise indicated in the prospectus supplement, the obligations of the underwriters to purchase the securities will be subject to certain conditions and the underwriters will be obligated to purchase all the securities offered if they purchase any securities. The public offering price for the securities and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

If we use dealers in any sale of securities offered under this prospectus, the securities will be sold to such dealers as principals. The dealers may then resell the securities to the public at varying prices to be determined by such dealers at the time of resale.

If agents are used in any sale of securities offered under this prospectus, they will use their reasonable best efforts to solicit purchases for the period of their appointment or to sell our securities on a continuing basis. If required, the prospectus supplement relating to any particular offering of securities will name any agents designated to solicit offers and will include information about any commissions they may be paid in that offering.

If securities offered under this prospectus are sold directly, no underwriters, dealers or agents would be involved.

If we sell securities through dealers or agents, or directly, the terms of any such sales will be described in the applicable prospectus supplement.

Delayed Delivery Contracts

We may authorize underwriters, dealers or agents to solicit offers from certain institutions whereby the institution contractually agrees to purchase the securities offered under this prospectus from us on a future date at a specific price. This type of contract may be made only with institutions that we specifically approve. Such institutions could include banks, insurance companies, pension funds, investment companies and educational and charitable institutions. The underwriters, dealers or agents will not be responsible for the validity or performance of these contracts. The prospectus supplement relating to the contracts will set forth the price to be paid for offered securities pursuant to such contracts, the commission payable for solicitation of the contracts and the date or dates in the future for delivery of offered securities pursuant to the contracts.

Market Making, Stabilization and Other Transactions

Each issue of a new series of securities, other than issuances of our common stock, will not have an established trading market, except as indicated in the applicable prospectus supplement. Unless indicated in the applicable prospectus supplement, we do not expect to list the offered securities on a securities exchange, except for our common stock, which is listed on Nasdaq. We can provide no assurance as to whether any of our securities will have a liquid trading market.

In order to facilitate the offering of any of the securities offered under this prospectus, the underwriters with respect to any such offering may, as described in the prospectus supplement and in accordance with applicable law, engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on these securities. Stabilizing transactions involve bids to purchase the underlying security in the open market for the purpose of preventing or delaying a decline in the price of the securities. Syndicate covering transactions involve purchases of the securities in the open market after the distribution has been completed in order to cover syndicate short positions. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when the securities originally sold by the syndicate member are purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions. Any of these activities may have the effect of raising or maintaining the market price of our securities or preventing or delaying a decline in the market price of our securities. As a result, the market price of the securities may be higher than it otherwise would be in the absence of these transactions. The underwriters are not required to engage in these activities, and may end any of these activities at any time, all as described in the applicable prospectus supplement.

Any person participating in the distribution of securities will be subject to applicable provisions of the Exchange Act and the rules and regulations under the Exchange Act, including Regulation M, which may limit the timing of transactions involving the securities offered under this prospectus. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of such securities to engage in market-making activities with respect to the particular securities being distributed. All of the above may affect the marketability of the securities offered under this prospectus and the ability of any person or entity to engage in market-making activities with respect to such securities.

Derivative Transactions and Hedging

We, the underwriters or other agents engaged by us may engage in derivative transactions involving the securities. These derivatives may consist of short sale transactions and other hedging activities. The underwriters or agents may acquire a long or short position in the securities, hold or resell securities acquired and purchase options or futures on the securities and other derivative instruments with returns linked or related to changes in the price of the securities. In order to facilitate these derivative transactions, we may enter into security lending or repurchase agreements with the underwriters or agents. The underwriters or agents may effect the derivative transactions through sales of the securities to the public, including short sales, or by lending the securities in order to facilitate short sale transactions by others. The underwriters or agents may also use the securities purchased or borrowed from us or others (or, in the case of derivatives, securities received from us in settlement of those derivatives) to directly or indirectly settle sales of the securities or close out any related open borrowings of the securities.

Electronic Auctions

We may also make sales through the Internet or through other electronic means. Since we may from time to time elect to offer securities directly to the public, with or without the involvement of agents, underwriters or dealers, utilizing the Internet or other forms of electronic bidding or ordering systems for the pricing and allocation of such securities, you will want to pay particular attention to the description of that system, which we will provide in a prospectus supplement.

Such electronic system may allow bidders to directly participate, through electronic access to an auction site, by submitting conditional offers to buy that are subject to acceptance by us, and which may directly affect the price or other terms and conditions at which such securities are sold. These bidding or ordering systems may present to each bidder, on a so-called "real-time" basis, relevant information to assist in making a bid, such as the clearing spread at which the offering would be sold, based on the bids submitted, and whether a bidder's individual bids would be accepted, prorated or rejected. For example, in the case of debt security, the clearing spread could be indicated as a number of "basis points" above an index treasury note.

Upon completion of such an electronic auction process, securities will be allocated based on prices bid, terms of bid or other factors. The final offering price at which securities would be sold and the allocation of securities among bidders would be based in whole or in part on the results of the Internet or other electronic bidding process or auction.

General Information

We expect that any agreements we may have with underwriters, dealers and agents will include provisions indemnifying them against certain civil liabilities, including certain liabilities under the Securities Act, or providing for contribution with respect to payments that they may be required to make. An underwriter, dealer or agent, or any of their affiliates, may be a customer of, or otherwise engage in transactions with or perform services for us in the ordinary course of business.

The specific terms of any lock-up provisions with respect to any given offering will be described in the applicable prospectus supplement.

Under the securities laws of various states, the securities offered under this prospectus may be sold in those states only through registered or licensed brokers or dealers. In addition, in various states the securities offered under this prospectus may not be offered and sold unless such securities have been registered or qualified for sale in the

state or an exemption from such registration or qualification is available. We are not making an offer of securities in any state that does not permit such an offer.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities will be passed upon for us by Covington & Burling LLP, Washington, D.C. If legal matters are passed upon by counsel for the underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement relating to such offering.

EXPERTS

The financial statements of LanzaTech Global, Inc. as of December 31, 2023 and 2022, and for each of the two years in the period ended December 31, 2023, incorporated by reference in this prospectus, and the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports which express an unqualified opinion on the financial statements and an adverse opinion on the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023. Such financial statements are incorporated by reference in reliance upon the reports of such firm given their authority as experts in accounting and auditing.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor is it soliciting an offer to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to completion, dated October 11, 2024

PROSPECTUS

LanzaTech

Up to 226,840,670 Shares of Common Stock 8,857,762 Warrants to Purchase Common Stock

This prospectus relates to the issuance by us of an aggregate of up to 23,403,989 shares of our common stock, \$0.0001 par value per share (“common stock”), which consists of (i) up to 4,774,276 shares of common stock that are issuable upon the exercise of private placement warrants (the “Private Placement Warrants”) originally issued in a private placement to AMCI Sponsor II LLC (the “Sponsor”) in connection with the initial public offering (“IPO”) of AMCI Acquisition Corp. II (“AMCI”) and upon the conversion of certain working capital loans of the Sponsor, at a price of \$1.00 per warrant, (ii) up to 7,499,924 shares of common stock that are issuable upon the exercise of public warrants (the “Public Warrants”) and, together with the Private Placement Warrants, the “warrants”) originally issued in connection with the AMCI IPO as units of AMCI at a price of \$10.00 per unit, with each unit consisting of one share of AMCI’s Class A common stock and one-half of one warrant, (iii) up to 5,000,000 shares of common stock that are issuable upon the conversion of that certain Simple Agreement for Future Equity between BGTF LT Aggregator LP (“Brookfield”) and LanzaTech NZ, Inc., dated October 3, 2022 (the “Brookfield SAFE”) at the equivalent to a price of \$10.00 per share, (iv) up to 300,000 shares of common stock that are issuable under a warrant held by ArcelorMittal XCarb S. à r.l. (“ArcelorMittal”), dated December 8, 2021 (the “AM Warrant”), at the equivalent to a price of \$10.00 per share, (v) up to 4,083,486 shares of common stock issuable upon the exercise of the warrants issued to certain selling stockholders pursuant to that certain forward purchase agreement (the “Forward Purchase Agreement”) by and between the Company, ACM ARRT H LLC (“ACM”), and the other parties thereto (the “Shortfall Warrants”), and (vi) up to 1,746,303 shares of common stock underlying options issued to certain holders under our incentive plans (the “Options”) and together with the warrants, the AM Warrant and the Brookfield SAFE and the Shortfall Warrants, the “Convertible Securities”) held by certain selling stockholders. We will receive the proceeds from the exercise of any warrants, the AM Warrant, the Shortfall Warrants or the Options for cash.

This prospectus also relates to the offer and sale from time to time by the selling stockholders named in this prospectus or their permitted transferees (the “selling stockholders”) of up to 4,774,276 Private Placement Warrants, up to 4,083,486 Shortfall Warrants, and up to 203,436,682 shares of common stock, which consists of (i) up to 18,500,000 shares of common stock issued on February 8, 2023 in a private placement pursuant to subscription agreements, dated March 8, 2022, October 18, 2022, February 1, 2023, and February 6, 2023 (each as amended, as applicable), at a price of \$10.00 per share (the “PIPE Shares”), (ii) up to 4,774,276 shares of common stock that are issuable upon the exercise of the Private Placement Warrants, (iii) up to 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE, (iv) up to 300,000 shares of common stock that are issuable upon the exercise of the AM Warrant, (v) up to 2,164,839 shares of common stock held by certain selling stockholders, (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders, (vii) up to 5,916,514 shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement, (viii) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, at a price equal to \$10.00 per share, subject to adjustment, and (ix) up to 160,951,264 shares of common stock, required to be registered pursuant to that certain Registration Rights Agreement, dated February 8, 2023 (the “Registration Rights Agreement”), by and among us and certain of the selling stockholders. We will not receive any proceeds from the sale of the Private Placement Warrants, the Shortfall Warrants or of the common stock by the selling stockholders pursuant to this prospectus.

The selling stockholders may offer, sell or distribute all or a portion of the securities hereby registered publicly or through private transactions at prevailing market prices or at negotiated prices. We are required to pay certain costs, expenses and fees in connection with the registration of these securities, including with regard to compliance with state securities or “blue sky” laws. The selling stockholders will bear all commissions and discounts, if any, attributable to their sale of Private Placement Warrants or shares of common stock. See the section titled “Plan of Distribution.”

Our common stock and warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbols “LNZA” and “LNZAW,” respectively. On October 4, 2024, the last reported sales price of the common stock was \$2.04 per share.

The common stock and the common stock issuable upon exercise of the resale securities noted above represent a substantial percentage of the total outstanding shares of our common stock as of the date of this prospectus. Additionally, assuming all of the Convertible Securities were converted, or exercised, as applicable, as of October 4, 2024, the selling stockholders would have owned 203,436,682 shares of common stock the resale of which would be registered hereunder, representing approximately 92.0% of the total outstanding common stock. So long as the registration statement of which this prospectus forms a part is effective, the sales of the securities being offered in this prospectus could result in a significant decline in the public trading price of the common stock. Furthermore, the cash proceeds associated with the exercises of the warrants, the AM Warrant, the Shortfall Warrants and the Options, are dependent on the stock price inasmuch as the holders are unlikely to exercise the warrants, the AM Warrant, the Shortfall Warrants or the Options, as applicable, if the exercise price thereof is less than the price of our common stock at the time of exercise. In that circumstance, such holder would be selling at a loss if they exercised their warrants, the AM Warrant, the Shortfall Warrants and the Options, as applicable and sold their common stock. Subject to adjustment, the exercise price of the warrants is \$11.50 per share and the exercise price of the AM Warrant is \$10.00 per share. Subject to adjustment, the exercise price of the Shortfall Warrants is \$10.00 per share. The exercise prices of the Options range from \$0.16 per share to \$3.15 per share. The shares currently held by the selling stockholders were purchased by them at a price per share ranging between \$0.005 and \$10.00. On October 4, 2024 the last reported sales price of the common stock was \$2.04 per share. If the market price for shares of common stock is less than \$10.00 per share, holders of shares of common stock would be selling at a loss if they purchased the shares of common stock at \$10.00 per share. Because certain selling stockholders purchased shares privately at a price below the current market price, or have the right to exercise Convertible Securities at an exercise price that is less than the current market price, they may have an incentive to sell shares of their common stock, or exercise their Convertible Securities and sell their common stock, because they could profit despite the market price of common stock falling below \$10.00 per share. While these selling stockholders may, on average, experience a positive rate of return based on the current market price, public securityholders may not experience a similar rate of return on the securities they purchased due to differences in the purchase prices and the current market price.

We are incorporated in Delaware and our headquarters are in Skokie, Illinois. We are not a company that was formed under the laws of the People’s Republic of China. However, we have business operations in China, several strategic investors located in China, including Sinopec Capital Co., Ltd. (“Sinopec”), and a core team of technical, business and administrative professionals at our office in Shanghai, which support the ongoing operations and further growth of the business in China. We also hold a minority ownership stake in Beijing Shougang LanzaTech Technology Co., Ltd. (the “Shougang Joint Venture”). 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. For more information on the Shougang Joint Venture, see the section entitled “Business Overview — Key Collaboration Agreements — Shougang Joint Venture” included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and any similar section contained in any applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

We have determined the Shougang Joint Venture to be a variable interest entity (“VIE”) for which we are not the primary beneficiary. This VIE structure was implemented 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. We had previously determined that we were able to exercise significant influence, but no control, over the Shougang Joint Venture through our equity holdings in the Shougang Joint Venture, our representation on the VIE’s board of directors and participation in the policy-making process. Although we have the right to appoint and elect, and currently have appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between us, the Shougang Joint Venture and Sinopec do not provide us with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore we do not consolidate the Shougang Joint Venture in our financial statements. On September 30, 2022, we determined that we no longer had significant influence over the operating and financial policies of the Shougang Joint Venture due to the significant decrease in the Shougang Joint Venture’s technological dependence on us.

Although we are incorporated and headquartered in the United States, we may still be subject to certain PRC laws due to our business operations in China. We face risks and uncertainties associated with complex and evolving PRC laws and regulations and as to whether and how recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to us or our operations. Any application of these statements or regulatory actions to us or our operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in our operations or in the value of the shares of our common stock. For more information, see the section entitled described under the caption “Risk Factors” beginning on page 17 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to our license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., our wholly owned subsidiary. As of the date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. We have not in the past and do not intend in the future to distribute to our stockholders any amounts that we receive from the Shougang Joint Venture. For more information, see our audited financial statements incorporated by reference in this prospectus.

Our auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the Public Company Accounting Oversight Board (the “PCAOB”) on December 16, 2021 regarding the PCAOB’s inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to us.

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks and uncertainties described under the caption “Risk Factors” beginning on page 17 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using the “shelf” registration process under the Securities Act. This prospectus relates to the issuance by us of the shares of common stock issuable upon the exercise of any Convertible Securities. Under this shelf registration process, the selling stockholders may, from time to time, sell the securities offered by them described in this prospectus. We will not receive any proceeds from the sale by such selling stockholders of the securities offered by them described in this prospectus.

We may provide a prospectus supplement that will contain specific information about the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus and the applicable prospectus supplement together with the additional information described under the heading “*Where You Can Find More Information.*” We may also prepare free writing prospectuses that describe particular securities. Any free writing prospectus should also be read in connection with this prospectus and any prospectus supplement referred to therein. For purposes of this prospectus, any reference to an applicable prospectus supplement may also refer to a free writing prospectus, unless the context otherwise requires.

Unless the context indicates otherwise, references in this prospectus to the “Company,” “LanzaTech,” “we,” “us,” “our” and similar terms refer to LanzaTech Global, Inc. (formerly known as AMCI Acquisition Corp. II) and its consolidated subsidiaries (including LanzaTech NZ, Inc.). References to “PRC” or “China” refer to the People’s Republic of China, which, solely for the purpose of this prospectus, exclude Taiwan and the special administrative regions of Hong Kong and Macau. We have no operations in Taiwan, Hong Kong, or Macau; however, the legal and operational risks associated with operating in China that are described in this prospectus also apply to any operations in Hong Kong and Macau.

This prospectus describes the terms of this offering also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus) the statement in the document having the later date modifies or supersedes the earlier statement. The information contained in this prospectus or any free writing prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our shares of common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

The registration statement of which this prospectus forms a part, including the exhibits to the registration statement, contains additional information about us and the securities offered under this prospectus. The registration statement can be obtained from the SEC’s website, www.sec.gov. Copies of information filed by us with the SEC are also available on our website at <https://lanzatech.com>. The reference to our website is not intended to be an active link and the information on, or that can be accessed through, our website is not, and you must not consider the information to be, a part of this prospectus or any other filings we make with the SEC.

Neither we nor the selling stockholders have authorized anyone to provide you with information that is different from or in addition to the information contained in this prospectus or in any applicable prospectus supplement or in any related free writing prospectus. Accordingly, neither we nor any selling stockholder takes any responsibility for, or can provide any assurance as to the reliability of, any information that others may provide. You should not assume that the information in this prospectus, any applicable prospectus supplement or any free writing prospectus that we have prepared is accurate as of any date other than the date of those documents, and that any information in documents that we have incorporated by reference is accurate only as of the date of such document, regardless of the time of delivery of this prospectus or any prospectus supplement or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

The distribution of this prospectus and any applicable prospectus supplement and the offering of the securities in certain jurisdictions may be restricted by law. Persons who obtain this prospectus and any applicable prospectus supplement should inform themselves about, and observe, any such restrictions. This prospectus and any applicable prospectus supplement do not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

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

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

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” and elsewhere in this prospectus. Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for the management of LanzaTech to predict all risks, nor can we assess the

impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus.

The forward-looking statements included in this prospectus 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 does not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this prospectus, and the documents that have been filed as exhibits to the registration statement of which this prospectus forms a part, and any accompanying prospectus supplement 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.

MARKET, INDUSTRY AND OTHER DATA

Certain information contained in this document relates to or is based on studies, publications, surveys and other data obtained from third-party sources and LanzaTech's own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this prospectus, we have not independently verified the market and industry data contained in this prospectus or the underlying assumptions relied on therein. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and our securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You can read our SEC filings, including the registration statement, over the internet at the SEC's website at www.sec.gov.

We are subject to the information reporting requirements of the Exchange Act, and we file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for review at the SEC's website at www.sec.gov. We also maintain a website at www.lanzatech.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. LanzaTech's website and the information contained on, or that can be accessed through, such website are not deemed to be incorporated by reference in, and are not considered part of, this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to “incorporate by reference” into this prospectus the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus and should be read with the same care. When we update the information contained in documents that have been incorporated by reference by making future filings with the SEC, the information incorporated by reference into this prospectus is considered to be automatically updated and superseded. In other words, in all cases, if you are considering whether to rely on information contained in this prospectus or information incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed later. We incorporate by reference (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein) the documents listed below (File No. 001-40282 unless otherwise stated), which are considered to be a part of this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2023, filed with the SEC on February 29, 2024 (including the portions of our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 29, 2024, incorporated by reference therein);
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2024, filed with the SEC on August 8, 2024;
- our Current Reports on Form 8-K filed with the SEC on [February 28, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [March 25, 2024](#), [April 29, 2024](#), [May 9, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [June 20, 2024](#), [July 1, 2024](#), [July 26, 2024](#), and [August 8, 2024](#) (second filed), [October 1, 2024](#), [October 8, 2024](#) and [October 10, 2024](#) (excluding Item 7.01); and
- the description of our common stock contained in [Exhibit 4.1](#) of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024.

All reports and other documents we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until our offering is completed, including all such reports and other documents filed with the SEC after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement, will also be incorporated by reference into this prospectus and deemed to be part hereof (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein). The information contained in any such filing will be deemed to be a part of this prospectus commencing on the date on which the document is filed.

Any documents incorporated by reference into this prospectus are available without charge to you, upon written request by contacting our Investor Relations department at Investor Relations, LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077.

THE COMPANY

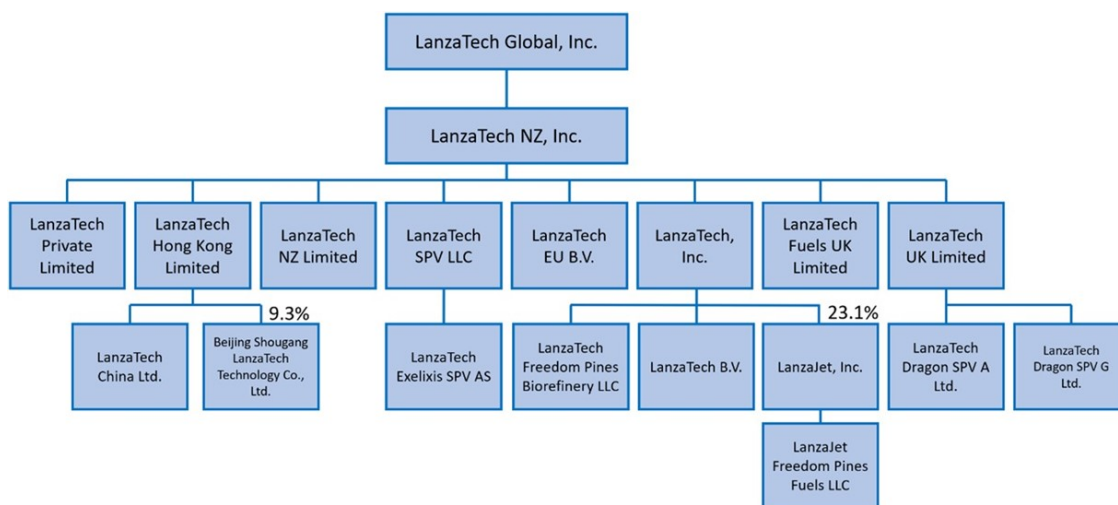
LanzaTech is a nature-based carbon refining company that transforms waste carbon into the chemical building blocks for consumer goods such as sustainable fuels, fabrics, and packaging that people use in their daily lives. Using LanzaTech's process technology, LanzaTech's partners started up the world's first commercial carbon refining plant in 2018 in China. Since then, LanzaTech's partners in China have started up an additional three commercial plants operating in China, one in April 2021, another in September 2022, and the last one in June 2023. Additionally, LanzaTech's partners have started up a commercial scale plant in India in September 2023 and in Belgium in November 2023. LanzaTech has numerous projects under development and in the pipeline globally. LanzaTech's technology platform is designed to use a variety of waste feedstocks, from waste industrial gases to biomass residues and municipal solid waste. LanzaTech's technology platform is designed to capitalize on the demand for sustainable fuels and chemicals, which can be used in multiple sectors such as aviation, automotive, textiles, home goods, consumer goods and others, to address the growing preference among major companies for environmentally conscious products and manufacturing processes.

LanzaTech is incorporated in Delaware and its headquarters are in Skokie, Illinois. LanzaTech is not a company that was formed under the laws of the PRC. However, LanzaTech has 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. LanzaTech also holds a minority ownership stake in the Shougang Joint Venture. LanzaTech licenses its 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 three commercial scale facilities using LanzaTech's process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products. For more information on the Shougang Joint Venture, see the section entitled "*Business Overview — Key Collaboration Agreements — Shougang Joint Venture*" included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and the corresponding sections of any prospectus supplement.

LanzaTech has determined the Shougang Joint Venture to be a VIE for which LanzaTech is not the primary beneficiary. LanzaTech holds its equity interest in the Shougang Joint Venture through its subsidiary, LanzaTech Hong Kong Limited, a limited liability company organized under the laws of Hong Kong. LanzaTech Hong Kong Limited is not a wholly foreign-owned enterprise ("WFOE") organized under the laws of the PRC. This VIE structure was implemented to effectuate the intellectual property licensing arrangement between LanzaTech 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.

LanzaTech also has a subsidiary, LanzaTech China Limited, which is a WFOE organized under the laws of the PRC. This subsidiary employs the professionals that work in LanzaTech's office in Shanghai. LanzaTech China Limited does not hold an equity interest in the Shougang Joint Venture, or in any other VIE in China.

The following chart illustrates the organizational structure of LanzaTech and its subsidiaries as of the date of this prospectus:



LanzaTech has entered into a license agreement with the Shougang Joint Venture and a letter agreement with the Shougang Joint Venture and Sinopec. Although LanzaTech has the right to appoint and elect, and currently has appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between LanzaTech, the Shougang Joint Venture and Sinopec do not provide LanzaTech with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore, LanzaTech does not consolidate the Shougang Joint Venture in its financial statements. LanzaTech may incur substantial costs to enforce the terms of the agreements. LanzaTech may also face challenges enforcing its contractual arrangements with the Shougang Joint Venture due to legal uncertainties and jurisdictional limits.

Although LanzaTech is incorporated and headquartered in the United States, LanzaTech may still be subject to certain PRC laws due to its business operations in China. LanzaTech faces risks and uncertainties associated with the complex and evolving PRC laws and regulations and as to whether and how the recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to LanzaTech and its operations. Any application of these statements or regulatory actions to LanzaTech and its operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in LanzaTech’s operations and could result in a material change in the value of the shares of the common stock.

If (i) LanzaTech does not receive or maintain any permission or approval required of it, (ii) LanzaTech inadvertently concluded that certain permissions or approvals have been acquired or are not required, or (iii) applicable laws, regulations, or interpretations thereof change and LanzaTech becomes subject to the requirement of additional permissions or approvals in the future, LanzaTech may have to expend significant time and costs to procure them. If LanzaTech is unable to do so, on commercially reasonable terms, in a timely manner or otherwise, LanzaTech may become subject to sanctions imposed by the PRC regulatory authorities, which could include fines and penalties, proceedings against LanzaTech, and other forms of sanctions, and LanzaTech’s business, reputation, financial condition, and results of operations may be materially and adversely affected. For more information, see the risks and uncertainties described under the caption “[Risk Factors](#)” beginning on page 17 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to LanzaTech’s license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., a wholly owned subsidiary of LanzaTech. As of the

date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. LanzaTech has not in the past and does not intend in the future to distribute to its stockholders any amounts that it receives from the Shougang Joint Venture. For more information, see the audited financial statements of LanzaTech incorporated by reference in this prospectus.

There are no restrictions or limitations on

- foreign exchange;
- LanzaTech's ability to transfer cash between entities, across borders, or to U.S. investors;
- LanzaTech's ability to distribute earnings from the company, including its subsidiaries, to the holding company or U.S. investors; or
- LanzaTech's ability to settle amounts owed under agreements with the Shougang Joint Venture.

LanzaTech's auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the PCAOB on December 16, 2021 regarding the PCAOB's inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to LanzaTech.

Additional information about us and our subsidiaries is included in documents incorporated by reference in this prospectus. See "*Where You Can Find More Information*" and "*Incorporation by Reference*."

Business Combination

On February 8, 2023 (the "Closing Date"), LanzaTech NZ, Inc. ("Legacy LanzaTech") and AMCI Acquisition Corp. II ("AMCI") 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.

Corporate Information

We were incorporated in Delaware on January 28, 2021, under the name AMCI Acquisition Corp. II, 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, AMCI and Legacy LanzaTech consummated the transactions contemplated by the Merger Agreement. On the Closing Date, AMCI changed its name to LanzaTech Global, Inc.

Our common stock is traded on Nasdaq under the symbol "LNZA." The mailing address of our principal executive office is 8045 Lamont Avenue, Suite 400, Skokie, Illinois 60077, and our telephone number is (847) 324-2400. Our website address is <https://lanzatech.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus. We make available free of charge on our website our annual,

quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

THE OFFERING

Issuance of common stock

Shares of common stock offered by us	Up to 23,403,989 shares of common stock, which consists of (i) up to 4,774,276 shares of common stock that are issuable upon the exercise of Private Placement Warrants, (ii) up to 7,499,924 shares of common stock that are issuable upon the exercise of Public Warrants, (iii) up to 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE, (iv) up to 300,000 shares of common stock that are issuable upon exercise of the AM Warrant, (v) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, and (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders.
Shares of common stock outstanding prior to the exercise or conversion of all Convertible Securities	197,782,055 shares (as of October 4, 2024)
Shares of common stock outstanding assuming exercise or conversion of all Convertible Securities	197,782,055 shares (based on total shares outstanding as of October 4, 2024)
Exercise price of the Private Placement Warrants	\$11.50 per share, subject to adjustment as described herein.
Exercise price of the Public Warrants	\$11.50 per share, subject to adjustment as described herein.
Exercise price of the AM Warrant	\$10.00 per share, subject to adjustment.
Exercise prices of the Options	The Options have exercise prices ranging between \$0.16 per share and \$3.15 per share.
Exercise price of the Shortfall Warrants	\$10.00 per share, subject to adjustment as described herein

Use of Proceeds

We will receive up to an aggregate of approximately \$188 million from the exercise of all of the warrants, the AM Warrant, the Shortfall Warrants and the Options, assuming the exercise in full of all of the warrants, the AM Warrant, the Shortfall Warrants and the Options for cash. There is no exercise price that must be paid in connection with the conversion of the Brookfield SAFE. The cash proceeds associated with the exercises of the warrants, the AM Warrant, the Shortfall Warrants and the Options are dependent on the stock price inasmuch as the holders are unlikely to exercise the warrants, the AM Warrant, the Shortfall Warrants or the Options, as applicable, if the exercise price thereof is less than the price of our common stock at the time of exercise. In that circumstance, such holder may be less likely to exercise the warrants, the AM Warrant, the Shortfall Warrants or the Options, as applicable, as such holder would be selling at a loss if they sold their common stock. Subject to adjustment, the exercise price of the warrants is \$11.50 per share, the exercise price of the AM Warrant is \$10.00 per share, and the exercise price of the Shortfall Warrants is \$10.00 per share, subject to adjustment. The exercise prices of the Options range from \$0.16 per share to \$3.15 per share. The shares currently held by the selling stockholders were purchased by them at prices per share ranging between \$0.005 and \$10.00. On October 4, 2024 the last reported sales price of the common stock was \$2.04 per share. We expect to use the net proceeds from the exercise of the warrants, the AM Warrant, the Shortfall Warrants, and the Options for general corporate purposes. See the section titled “Use of Proceeds.”

Resale of common stock and warrants

Shares of common stock offered by the selling stockholders

(i) Up to 18,500,000 PIPE Shares, (ii) up to 4,774,276 shares of common stock exercisable on the Private Placement Warrants, (iii) up to 5,000,000 shares of common stock pursuant to the Brookfield SAFE, (iv) up to 300,000 shares of common stock that are issuable upon exercise of the AM Warrant, (v) up to 2,164,839 shares of common stock held by certain selling stockholders, (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders, (vii) up to 5,916,514 shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement, (viii) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, and (ix) up to 160,951,264 shares of common stock required to be registered pursuant to the Registration Rights Agreement.

The shares of common stock currently held by the selling stockholders were purchased by them at prices per share ranging between \$0.005 and \$10.00. Subject to adjustment, the exercise price of the warrants is \$11.50 per share, the exercise price of the AM Warrant is \$10.00 per share, and the exercise price of the Shortfall Warrants is \$10.00 per share, subject to adjustment. The exercise prices of the Options range from \$0.16 per share to \$3.15 per share. On October 4, 2024 the last reported sales price of the common stock was \$2.04 per share. If the market price for shares of common stock is less than \$10.00 per share, holders of shares of common stock would be selling at a loss if they purchased the shares of common stock at or above \$10.00 per share. Because certain selling stockholders purchased shares privately at a price below the current market price, or have the right to exercise Convertible Securities at an exercise price that is less than the current market price, they may have an incentive to sell shares of their common stock, or exercise their Convertible Securities and sell their common stock, because they could profit despite the market price of common stock falling below \$10.00 per share. While these selling stockholders may, on average, experience a positive rate of return based on the current market price, public securityholders may not experience a similar rate of return on the securities they purchased due to differences in the purchase prices and the current market price. Based on the closing price of our common stock of \$2.04 on October 4, 2024, the selling stockholders would have a potential profit of up to \$2.035 per share (assuming they purchased at the lowest price in the range), or approximately \$8.9 million in the aggregate (using the average weighted purchase price, where appropriate, and not giving effect to the issuance of common stock issuable upon exercise of the Convertible Securities held by them).

Warrants offered by the selling stockholders

(i) Up to 4,774,276 Private Placement Warrants and (ii) up to 4,083,486 Shortfall Warrants

Redemption

The Private Placement Warrants and the Shortfall Warrants are redeemable in certain circumstances. See “*Description of Securities*” for further discussion.

Use of Proceeds

We will not receive any proceeds from the sale of the Private Placement Warrants, the Shortfall Warrants or of the common stock by the selling stockholders pursuant to this prospectus.

Risk Factors

Before investing in our securities, you should carefully read and consider the information set forth in the section titled “*Risk Factors*” of this prospectus.

Nasdaq Ticker Symbol

The common stock and Public Warrants are listed on Nasdaq under “LNZA” and “LNZAW”, respectively.

Effective purchase prices and potential profits upon resale of the common stock and warrants offered for resale⁽¹⁾

Effective purchase price of AMCI’s units in the IPO and potential profit upon resale of the common stock underlying AMCI’s units⁽²⁾

\$10.00 per unit with no potential profit per share or in the aggregate

Effective purchase price and potential profit upon resale of the PIPE Shares

\$185,000,000 in the aggregate or \$10.00 per share with no potential profit per share or in the aggregate

Effective purchase price and potential profit upon resale of the Private Placement Warrants	\$4,774,276 in the aggregate or \$1.00 per warrant with no potential profit per warrant or in the aggregate ⁽³⁾
Effective purchase price and potential profit upon resale of the shares of common stock that are issuable upon the exercise of the Private Placement Warrants	\$54,904,174 in the aggregate or \$11.50 per warrant ⁽⁴⁾ with no potential profit per warrant or in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock pursuant to the conversion of the Brookfield SAFE	\$50,000,000 in the aggregate or \$10.00 per share with no potential profit per share or in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock that are issuable upon exercise of the AM Warrant	\$3,000,000 in the aggregate or \$10.00 per share ⁽⁵⁾ with no potential profit per share or in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock held by certain selling stockholders	From \$1.38 per share to \$1.60 per share ⁽⁶⁾ with a potential profit between \$0.44 per share and \$0.66 per share; calculated using the weighted average purchase price per share of \$1.46, the potential profit per share would be \$0.58 or approximately \$1.3 million in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock underlying the Options held by certain selling stockholders	From \$0.16 per share to \$3.15 per share ⁽⁷⁾ with a potential profit between \$0 per share and \$1.88 per share; calculated using the weighted average exercise price per share of \$1.73, the potential profit per share would be \$0.31 or approximately \$0.5 million in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement	\$60,100,000 in the aggregate or approximately \$10.16 per share with no potential profit per share or in the aggregate
Effective purchase price and potential profit upon resale of the Shortfall Warrants	The Shortfall Warrants were granted to certain selling stockholders pursuant to the Forward Purchase Agreement and did not have a separate purchase price. The potential profit upon a resale of the Shortfall Warrants would be \$0.15 per warrant or approximately \$0.6 million in the aggregate
Effective purchase price and potential profit upon resale of the shares of common stock issuable upon the exercise of the Shortfall Warrants	\$40,834,860 in the aggregate or approximately \$10.00 per share, subject to adjustment ⁽⁸⁾ with no potential profit per share or in the aggregate
Effective purchase price and potential profit upon resale of the founder shares	\$25,000 in the aggregate or approximately \$0.005 per share with a potential profit of \$2.035 per share or approximately \$7.6 million in the aggregate

Effective purchase price and potential profit upon resale of the shares of common stock required to be registered pursuant to the Registration Rights Agreement (other than founder shares)

From approximately \$0.40 per share to \$10.00 per share with a potential profit between \$0 per share and \$1.64 per share; calculated using the weighted average purchase price per share of \$2.96 there would be a potential profit per share in the aggregate

- (1) This table includes information relating to the securities held by the selling stockholders, including the price that certain selling stockholders paid for the securities. The table is in part based on LanzaTech's internal records and is for illustrative purposes only. For additional information and assumptions, see "Risk Factors — Risks Related to Ownership of our Securities — The holders of the shares of common stock registered hereby may be willing to sell their shares at a price lower than the public market price." The public offering price in AMCI's IPO was \$10.00 per unit. As seen in the table, some of the selling stockholders may realize a positive rate of return on the sale of their common stock covered by this prospectus even if the market price per share of the common stock is below \$10.00 per share, in which case the public stockholders who purchased shares in AMCI's IPO may experience a negative rate of return on their investment. Unless otherwise noted, our calculation of potential profit is based on an assumption that the closing price of our common stock of \$2.04 per share on October 4, 2024 is identical to the sale price. The trading price of our common stock may be different at the time a selling stockholder decides to sell its common stock.
- (2) Each unit consisted of one share of AMCI's Class A common stock and one-third of one warrant to purchase one share of AMCI's Class A common stock at an exercise price of \$11.50 per share.
- (3) Unless otherwise noted, our calculation of potential profit is based on an assumption that the closing price of our Public Warrants of \$0.15 per Public Warrant on October 4, 2024 is identical to the sale price. The trading price of our Public Warrants may be different at the time a selling stockholder decides to sell its warrants.
- (4) Represents the exercise price of the Private Placement Warrants, which is subject to adjustment.
- (5) Represents the exercise price of the AM Warrant, which is subject to adjustment.
- (6) Represents the range of exercise prices for the Options exercised by the selling stockholder. Certain shares of the common stock registered on behalf of the selling stockholder were granted by Legacy LanzaTech to the selling stockholder as restricted stock units, so the effective purchase price is not applicable.
- (7) Represents the range of exercise prices for the shares of common stock underlying the Options held by the selling stockholders, which are subject to adjustment.
- (8) Represents the exercise price of the Shortfall Warrants, which is subject to adjustment.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks. If any of these risks occur, the value of our common stock may decline and you may lose all or part of your investment. Before investing in our common stock, you should consider carefully the risk factors set forth in this prospectus and contained in any free writing prospectus with respect to this offering filed by us with the SEC, along with the risk factors described in "Item 1A. Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023, as updated by our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024 and June 30, 2024 and other filings we have made and will make with the SEC incorporated by reference into this prospectus.

Risks Related to This Offering

The common stock and the common stock issuable upon exercise of the resale securities described in this prospectus represent a substantial percentage of the total outstanding shares of our common stock.

The common stock and the common stock issuable upon exercise of the resale securities described in this prospectus represent a substantial percentage of the total outstanding shares of our common stock as of the date of this prospectus. Additionally, assuming all of the Convertible Securities were converted, or exercised, as applicable, as of October 4, 2024, the selling stockholders would have owned 203,436,682 shares of common stock the resale of which would be registered hereunder, representing approximately 92.0% of the total outstanding common stock. So long as the registration statement of which this prospectus forms a part is effective, the sales of the securities being offered in this prospectus could result in a significant decline in the public trading price of the common stock.

There can be no assurance that our warrants, the AM Warrant or the Shortfall Warrants will be in the money at the time they become exercisable, and they may expire worthless.

Subject to adjustment, the exercise price for the outstanding Public Warrants and Private Placement Warrants is \$11.50 per share of common stock, the exercise price for the AM Warrant is \$10.00 per share of common stock and the exercise price for the Shortfall Warrants is \$10.00 per share. On October 4, 2024 the last reported sales price of the common stock was \$2.04 per share. The cash proceeds associated with the exercises of the warrants, the AM Warrant, the Shortfall Warrants and the Options are dependent on the stock price inasmuch as the holders are unlikely to exercise the warrants, the AM Warrant, the Shortfall Warrants or the Options, as applicable, if the exercise price thereof is greater than the price of our common stock at the time of exercise. In that circumstance, such holder may be less likely to exercise the warrants, the AM Warrant, or the Shortfall Warrants, as applicable, as such holder would be selling at a loss if they exercised their Convertible Securities and sold their common stock. There can be no assurance that such warrants, the AM Warrant or the Shortfall Warrants will be in the money following the time they become exercisable and prior to their expiration, and as such, the warrants, the AM Warrant and the Shortfall Warrants may expire worthless.

The holders of the shares of common stock registered hereby may be willing to sell their shares at a price lower than the public market price.

On October 4, 2024, the last reported sales price of the common stock was \$2.04 per share. If the market price for shares of common stock is less than \$10.00 per share, holders of shares of common stock would be selling at a loss if they purchased the shares of common stock at or above \$10.00 per share. Because certain selling stockholders purchased shares privately at a price below the current market price, or have the right to exercise Convertible Securities at an exercise price that is less than the current market price, they may have an incentive to sell shares of their common stock, or exercise their Convertible Securities and sell their common stock, because they could profit despite the market price of common stock falling below \$10.00 per share. While these selling stockholders may, on average, experience a positive rate of return based on the current market price, public securityholders may not experience a similar rate of return on the securities they purchased due to differences in the purchase prices and the current market price.

For example, the Private Placement Warrants were purchased by certain selling stockholders for a price of \$1.00 per warrant, and based on the closing price of the Public Warrants of \$0.15 on October 4, 2024, such selling

stockholders would not earn any profit from the resale of such Private Placement Warrants. The Shortfall Warrants were granted to certain selling stockholders pursuant to the Forward Purchase Agreement and did not have a separate purchase price and, therefore, such selling stockholders would earn a profit equal to the purchase price of the Shortfall Warrant on the resale of such Shortfall Warrant. The PIPE Shares were purchased by certain selling stockholders at a price, or at the equivalent to a price, of \$10.00 per share, as applicable, and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholders would not earn any profit from the resale of such shares. The exercise price of the Private Placement Warrants is \$11.50 per warrant, and, therefore, based on the closing price of the common stock on October 4, 2024, holders of the Private Placement Warrants would not earn any profit from the resale of shares received upon exercise of the Private Placement Warrants. The Brookfield SAFE is convertible into common stock at the equivalent to a price of \$10.00 per share and, therefore, based on the closing price of the common stock on October 4, 2024, Brookfield would not earn any profit from the resale of shares received upon conversion. The AM Warrant has an exercise price of \$10.00 per share and, therefore, based on the closing price of the common stock on October 4, 2024, ArcelorMittal would not earn any profit from the resale of shares received upon exercise. Certain of the shares of common stock held by a selling stockholder were purchased pursuant to Options exercised at prices ranging from \$1.38 per share to \$1.60 per share and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholder would earn a profit ranging from \$0.44 per share to \$0.66 per share from the resale of such shares. Certain other shares of common stock held by a selling stockholder were granted by Legacy LanzaTech pursuant to restricted stock units, which do not have an exercise price and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholder would earn a profit of \$2.04 per share from the resale of such shares. The Options held by certain selling stockholders are exercisable at prices ranging from \$0.16 per share to \$3.15 per share and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholders would earn a profit ranging from \$0 per share to \$1.88 per share from the resale of shares received upon exercise. The shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement were purchased at the equivalent to a price of \$10.16 per share and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholders would not earn any profit from the resale of such shares. The Shortfall Warrants have an exercise price equal to \$10.00 per share, subject to adjustment, and, therefore, based on the closing price of the common stock on October 4, 2024, holders of the Shortfall Warrants would not earn any profit from the resale of shares received upon exercise. The founder shares were purchased by certain selling stockholders at the equivalent to a price of \$0.005 per share and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholders would earn a profit of \$2.035 per share from the resale of such shares. The shares of common stock registered pursuant to the Registration Rights Agreement (other than the founder shares) were purchased by certain selling stockholders at prices ranging from approximately \$0.40 per share to \$10.00 per share and, therefore, based on the closing price of the common stock on October 4, 2024, such selling stockholders would earn a profit ranging from \$0 per share to \$1.64 per share from the resale of such shares.

USE OF PROCEEDS

We will not receive any proceeds from the sale of the Private Placement Warrants, the Shortfall Warrants or of the common stock by the selling stockholders pursuant to this prospectus.

We will receive up to an aggregate of approximately \$188 million from the exercise of the warrants, the AM Warrant, the Shortfall Warrants and the Options, assuming the exercise in full of all of the warrants, the AM Warrant, the Shortfall Warrants and the Options for cash. To the extent that the warrants, the AM Warrant, the Shortfall Warrants and the Options are exercised on a “cashless basis,” the amount of cash we would receive from the exercise of the warrants, the AM Warrant, the Shortfall Warrants and the Options will decrease. We expect to use the net proceeds from the exercise of the warrants, the AM Warrant, the Shortfall Warrants and the Options for general corporate purposes. We will have broad discretion over the use of proceeds from the exercise of the warrants, the AM Warrant, the Shortfall Warrants and the Options.

There is no assurance that the holders of the warrants, the AM Warrant, or the Shortfall Warrants will elect to exercise any or all of such warrant, or that the holders of Options will elect to exercise any or all of such Options. The cash proceeds associated with the exercises of the warrants, the AM Warrant, the Shortfall Warrants, and the Options are dependent on the stock price inasmuch as the holders are unlikely to exercise the warrants, the AM Warrant, the Shortfall Warrants or the Options, as applicable, if the exercise price thereof is less than the price of our common stock at the time of exercise. In that circumstance, such holder may be less likely to exercise the warrants, the AM Warrant, the Shortfall Warrants, or the Options, as applicable, as such holder would be selling at a loss if they exercised their Convertible Securities and sold their common stock. Accordingly, we have not included the net proceeds from any exercise of the warrants, the AM Warrant, the Shortfall Warrants and the Options in our assessment of our liquidity and our ability to fund operations on a prospective basis.

Subject to adjustment, the exercise price of the warrants is \$11.50 per share, the exercise price of the AM Warrant is \$10.00 per share, and the exercise price of the Shortfall Warrants is \$10.00 per share, subject to adjustment. Subject to adjustment, the exercise prices of the Options range from \$0.16 per share to \$3.15 per share. On October 4, 2024 the last reported sales price of the common stock was \$2.04 per share. Additionally, if the market price for shares of common stock is less than \$10.00 per share, holders of shares of common stock would be selling at a loss if they purchased the shares of common stock at or above \$10.00 per share. Because certain selling stockholders purchased shares privately at a price below the current market price, or have the right to exercise Convertible Securities at an exercise price that is less than the current market price, they may have an incentive to sell shares of their common stock, or exercise their Convertible Securities and sell their common stock, because they could profit despite the market price of common stock falling below \$10.00 per share. While these selling stockholders may, on average, experience a positive rate of return based on the current market price, public securityholders may not experience a similar rate of return on the securities they purchased due to differences in the purchase prices and the current market price. Based on the closing price of our common stock of \$2.04 on October 4, 2024, the selling stockholders would have a potential profit of up to \$2.035 per share, or up to approximately \$8.9 million in the aggregate (not giving effect to the issuance of common stock issuable upon exercise of the Convertible Securities held by them).

DETERMINATION OF OFFERING PRICE

The offering price of the shares of common stock underlying the warrants offered hereby is determined by reference to the exercise price of the warrants of \$11.50 per share. The Public Warrants are listed on Nasdaq under the symbol "LNZAW." The offering price of the shares of common stock underlying the Brookfield SAFE offered hereby is determined by reference to the conversion price of the Brookfield SAFE of \$10.00 per share. The offering price of the shares of common stock underlying the AM Warrant is determined by reference to the exercise price of the AM Warrant of \$10.00 per share. The offering price of the shares of common stock underlying the Shortfall Warrants is determined by reference to the exercise of the Shortfall Warrants, equal to \$10.00 per share, subject to adjustment. The offering price of shares of common stock underlying the Options is determined by reference to the exercise price of the Options, which ranges between \$0.16 per share and \$3.15 per share.

We cannot currently determine the price or prices at which shares of common stock, the Private Placement Warrants or the Shortfall Warrants may be sold by the selling stockholders under this prospectus.

DESCRIPTION OF SECURITIES

The following summary of the material terms of the common stock, preferred stock, our Private Placement Warrants and our Shortfall Warrants is not intended to be a complete summary of the rights and preferences of such securities, and is qualified by reference to the applicable warrant agreement and to our second amended and restated certificate of incorporation, as amended (the "Charter") and our Bylaws (the "Bylaws"), which are exhibits to the registration statement of which this prospectus forms a part. We urge you to read the applicable warrant agreement and our Charter and Bylaws in their entirety for a complete description of the rights and preferences of our securities.

Authorized and Outstanding Stock

The Charter authorizes the issuance of 620,000,000 shares, consisting of 600,000,000 shares of common stock, \$0.0001 par value per share, and 20,000,000 shares of preferred stock, \$0.0001 par value per share. As of October 4, 2024, there were 197,782,055 shares of common stock outstanding. No shares of preferred stock are currently outstanding.

Common Stock

The Charter provides the following with respect to the rights, powers, preferences and privileges of the common stock.

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of shares of common stock possess all voting power for the election of LanzaTech's directors and all other matters requiring stockholder action. Holders of shares of common stock are entitled to one vote for each share held on all matters to be voted on by stockholders.

Dividends

Holders of shares of common stock will be entitled to receive such dividends, if any, as may be declared from time to time by the Board in its discretion out of funds legally available therefor. We do not intend to pay cash dividends on the common stock for the foreseeable future. Any payment of cash dividends in the future will be dependent upon LanzaTech's revenues and earnings, if any, capital requirements and general financial conditions. In no event will any stock dividends or stock splits or combinations of stock be declared or made on shares of common stock unless the shares of common stock at the time outstanding are treated equally and identically.

Liquidation, Dissolution and Winding Up

In the event of LanzaTech's voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of shares of common stock will be entitled to receive an equal amount per share of all of LanzaTech's assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock have been satisfied.

Preemptive or Other Rights

The LanzaTech stockholders have no preemptive or other subscription rights. No sinking fund provisions are applicable to the common stock.

Preferred Stock

The Charter provides that shares of preferred stock may be issued from time to time in one or more series. The Board is authorized to fix the voting rights, if any, designations, powers, preferences, the relative, participating, optional or other special rights and any qualifications, limitations and restrictions thereof, applicable to the shares of each series. The Board will be able to, without stockholder approval, issue shares of preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of the shares of common

stock and could have anti-takeover effects. The ability of the Board to issue shares of preferred stock without stockholder approval could have the effect of delaying, deferring or preventing a change of control of LanzaTech or the removal of existing management.

Registration Rights

AMCI, certain of the Legacy LanzaTech stockholders and AMCI Stockholders entered into a Registration Rights Agreement, pursuant to which, among other things, such stockholders were granted certain registration rights with respect to certain shares of securities held by them.

Anti-Takeover Provisions

Charter and Bylaws

Among other things, the Charter and Bylaws:

- permit the Board to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that the number of directors of LanzaTech may be changed only by resolution of the Board;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may be removed only with cause by the holders of at least 66% of all of LanzaTech's then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder's notice;
- provide that special meetings of LanzaTech's stockholders may be called by the Board pursuant to a resolution adopted by a majority of the Board;
- provide that the Board will be divided into three classes of directors, with the classes to be as nearly equal as possible, and with the directors serving three-year terms, therefore making it more difficult for stockholders to change the composition of the Board; and
- do not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The combination of these provisions will make it more difficult for the existing stockholders to replace the Board as well as for another party to obtain control of LanzaTech by replacing the Board. Because the Board has the power to retain and discharge its officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for the Board to issue shares of preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of LanzaTech.

These provisions are intended to enhance the likelihood of continued stability in the composition of the Board and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce LanzaTech's vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for LanzaTech's shares and may have the effect of delaying changes in its control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of LanzaTech's Common Stock.

Certain Anti-Takeover Provisions of Delaware Law

LanzaTech is subject to the provisions of Section 203 of the DGCL, which prevents certain Delaware corporations, under certain circumstances, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of a corporation’s assets. However, the above provisions of Section 203 would not apply if:

- the relevant board of directors approves the transaction that made the stockholder an interested stockholder prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of the corporation’s voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the initial business combination is approved by the board of directors and authorized at a meeting of the corporation’s stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

These provisions may have the effect of delaying, deferring, or preventing changes in control of LanzaTech.

Forward Purchase Agreement

On February 3, 2023, AMCI, Legacy LanzaTech and ACM entered into the Forward Purchase Agreement for an over-the-counter Equity Prepaid Forward Transaction (the “Forward Purchase Transaction”). For purposes of the Forward Purchase Agreement, ACM is sometimes referred to as the “Seller” and AMCI and LanzaTech are sometimes referred to as the “Counterparty” prior to and after the Business Combination, respectively. Pursuant to the terms of the Forward Purchase Agreement, the Seller purchased through a broker in the open market 5,916,514 shares of AMCI’s common stock before the closing of the Business Combination (the “Closing”) from holders of AMCI’s common shares (other than AMCI), including from holders who had previously elected to redeem their shares (such purchased shares, and the successor shares following the Closing, the “Recycled Shares”) in connection with the Business Combination pursuant to the redemption rights set forth in AMCI’s Amended and Restated Certificate of Incorporation (such holders, “Redeeming Holders”). The aggregate total number of shares subject to the Forward Purchase Agreement (the “Number of Shares”) is 10,000,000. The Number of Shares is subject to reduction following termination of the Forward Purchase Agreement with respect to the Recycled Shares as described under “Optional Early Termination” in the Forward Purchase Agreement. Unless in connection with an optional early termination, the Seller has agreed to hold the Recycled Shares in a bankruptcy remote special purpose vehicle for the benefit of the Counterparty. The Seller also may not beneficially own greater than 9.9% of our outstanding common shares.

In accordance with the Forward Purchase Agreement, the Seller was paid directly, out of the funds held in ACMI’s trust account \$60.1 million (the “Prepayment Amount”).

We agreed to file a registration statement with the SEC registering the resale of the Recycled Shares and the Share Consideration (as defined below) (the “Registration Statement”) under the Securities Act, within 45 days following the request of the Seller. From time to time following the Closing and only after the effectiveness of the Registration Statement, the Seller was permitted, at its discretion, to provide a shortfall sale notice to the Counterparty without a payment obligation to the Counterparty until such time as the aggregate amount indicated on

such shortfall sale notices equals \$2,500,000 (the “Prepayment Shortfall”). LanzaTech did not take the Prepayment Shortfall. The Seller in its sole discretion may request Shortfall Warrants exercisable for shares in an amount equal to (i) 10,000,000 shares less (ii) the number of Recycled Shares at the outset of the Forward Purchase Transaction (the “Shortfall Warrants”). On March 27, 2023, the Company issued an aggregate of 4,083,486 Shortfall Warrants pursuant to the Forward Purchase Agreement, the terms of which are described below.

The Seller may also, at its discretion and at any time, provide a notice under “OET Sales.” The Seller may deliver an OET notice and return to the Counterparty the product of the Reset Price and the number of shares listed on the OET notice. Following the Closing, the reset price (the “Reset Price”) was initially the per share Redemption Price. However, the Reset Price is reducible to any lower price at which the Counterparty sells, issues or grants any shares or securities convertible or exchangeable into shares (other than grants or issuances under the Counterparty’s equity compensation plans or shares underlying warrants issued in connection with the Business Combination), subject to certain exceptions.

The maturity date of the Forward Purchase Agreement is the third anniversary of the Closing (the “Maturity Date”). Upon the occurrence of the Maturity Date, the Counterparty is obligated to pay to the Seller an amount equal to the product of (1) (a) the lesser of the Maximum Number of Shares (as defined in the Forward Purchase Agreement) and 7,500,000 less (b) the number of Terminated Shares (as defined in the Forward Purchase Agreement) multiplied by (2) \$2.00 (the “Maturity Consideration”). At the Maturity Date, the Counterparty will be entitled to deliver the Maturity Consideration to the Seller in cash or shares calculated based on the average daily VWAP Price (as defined in the Forward Purchase Agreement) over 30 trading days ending on the later of the Maturity Date and the date on which such shares are registered. The Maturity Date may be accelerated by Seller, at its discretion, if, among other termination events, following the Closing, the VWAP Price is below \$2.00 per Share for any 50 trading days during a 60 consecutive trading day-period that ends during the first 90 days after the date of the Forward Purchase Agreement, and (2) \$3.00 per share thereafter (a “Seller VWAP Triggering Event”). In addition to the Prepayment Amount and the Maturity Consideration, on the Maturity Date, the Counterparty has agreed to pay to the Seller an amount equal to the product of (x) 500,000 and (y) the Redemption Price (the “Share Consideration”).

The Counterparty has agreed to indemnify and hold harmless the Seller, its affiliates, assignees and other parties described therein (the “Indemnified Parties”) from and against all losses, claims, damages and liabilities under the Forward Purchase Agreement (excluding liabilities relating to the manner in which Seller sells any shares it owns) and reimburse the Indemnified Parties for their reasonable expenses incurred in connection with such liabilities, subject to certain exceptions described therein, and has agreed to contribute to any amounts required to be paid by any Indemnified Parties if such indemnification is unavailable or insufficient to hold such party harmless.

The Seller waived any redemption rights with respect to any Recycled Shares in connection with the Business Combination. In connection with the Forward Purchase Agreement, ACM assigned its rights, duties and obligations with respect to a portion of the shares purchased under the Forward Purchase Agreement to Vellar Opportunity Fund SPV LLC - Series 10 (“Vellar”) (which entity assumed all of the obligations and rights of ACM described above with respect to the portion of the shares so assigned).

In relation to the Forward Purchase Agreement, 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 (together with certain other conditions relating to the VWAP Price, each a the “VWAP Trigger Event”). On July 22, 2024, Vellar notified the Company of such VWAP Trigger Event, purporting to accelerate the Maturity Date of its portion of the Recycled Shares (i.e., 2,990,000 common shares) to July 22, 2024. Vellar asserts that it is entitled to: (i) the Maturity Consideration of \$7,500,000 (payable at the Company’s option in cash or shares of common stock valued at the average daily VWAP Price over 30 scheduled trading days ending on the accelerated Maturity Date of July 22, 2024 of \$1.91 per share) and (ii) Share Consideration of \$2,539,000, 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 Forward Purchase Agreement, 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 Forward Purchase Agreement from Vellar that (i) designated such date as the early termination date of the Forward Purchase Agreement and (ii) purports to result in an early termination cash payment of \$4,164,000 becoming due to Vellar (equating to the sum of the Maturity Consideration

and the Share Consideration minus the VWAP Price (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 Forward Purchase Agreement'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. LanzaTech believes that Vellar's notice of 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 Maturity Date or early termination of the Forward Purchase Agreement.

On October 4, 2024, ACM delivered to the Company notice of a VWAP Trigger Event (the "ACM Notice"), which purported to accelerate the Maturity Date of ACM's portion of the Recycled Shares (i.e., 2,926,514 common shares) to October 4, 2024. The ACM Notice requests delivery of the Maturity Consideration and Share Consideration. Under the terms of the Forward Purchase Agreement, the Maturity Consideration of \$7,500,000 is payable at the Company's option in cash or shares of common stock (on a net share settlement basis with the Recycled Shares) and the Share Consideration of \$2,539,350 is payable in cash. The Company is in discussions with ACM on the settlement method and timing thereof.

Warrants

Public Warrants

Each Public Warrant entitles the registered holder to purchase one share of common stock at a price of \$11.50 per share, subject to adjustment as discussed below, at any time. Pursuant to the warrant agreement, a Public Warrant holder may exercise its Public Warrants only for a whole number of shares of common stock. This means that only a whole Public Warrant may be exercised at any given time by a Public Warrant holder. No fractional Public Warrants were issued upon separation of AMCI's units and only whole Public Warrants will trade. The Public Warrants will expire five years after the Closing, at 5:00 p.m., New York City time, or earlier upon redemption or liquidation.

We are not obligated to deliver any shares of common stock pursuant to the exercise of a Public Warrant and will have no obligation to settle such Public Warrant exercise unless a registration statement under the Securities Act with respect to the shares of common stock underlying the Public Warrants is then effective and a prospectus relating thereto is current, subject to satisfaction of our obligations described below with respect to registration. No Public Warrant will be exercisable and we will not be obligated to issue shares of common stock upon exercise of a Public Warrant unless the common stock issuable upon such Public Warrant exercise has been registered, qualified or deemed to be exempt under the securities laws of the state of residence of the registered holder of the Public Warrants. In the event that the conditions in the two immediately preceding sentences are not satisfied with respect to a Public Warrant, the holder of such Public Warrant will not be entitled to exercise such Public Warrant and such Public Warrant may have no value and expire worthless. In no event will we be required to net cash settle any warrant. In the event that a registration statement is not effective for the exercised Public Warrants, the purchaser of a unit containing such Public Warrant will have paid the full purchase price for the unit solely for the share of common stock underlying such unit.

We have agreed to use our best efforts to maintain the effectiveness of a registration statement covering the shares of common stock issuable upon exercise of the Public Warrants and a current prospectus relating to those shares of common stock until the Public Warrants expire or are redeemed, as specified in the warrant agreement. We cannot assure you that we will be able to do so if, for example, any facts or events arise which represent a fundamental change in the information set forth in the registration statement or prospectus, the financial statements contained or incorporated by reference therein are not current or correct or the SEC issues a stop order. Notwithstanding the above, if common stock is at the time of any exercise of a warrant not listed on a national securities exchange such that it satisfies the definition of a "covered security" under Section 18(b)(1) of the Securities Act, we may, at our option, require holders of Public Warrants who exercise their warrants to do so on a

“cashless basis” in accordance with Section 3(a)(9) of the Securities Act and, in the event we so elect, we will not be required to file or maintain in effect a registration statement, and in the event we do not so elect, we will use our best efforts to register or qualify the shares under applicable blue sky laws to the extent an exemption is not available. In such event, each holder would pay the exercise price by surrendering the Public Warrants for that number of shares of common stock equal to the lesser of (A) 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” (defined below) less the exercise price of the warrants by (y) the fair market value and (B) 0.361. The “fair market value” as used in this paragraph shall mean the volume weighted average price of the common stock for the 10 trading days ending on the trading day prior to the date on which the notice of exercise is received by the warrant agent.

Redemption of Public Warrant when the price per share of common stock equals or exceeds \$18.00.

We may call the Public Warrants for redemption:

- in whole and not in part;
- at a price of \$0.01 per warrant;
- upon a minimum of 30 days’ prior written notice of redemption to each Public Warrant holder; and
- if, and only if, the closing price of common stock equals or exceeds \$18.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within a 30-trading day period commencing once the Public Warrants become exercisable and ending three trading days before we send the notice of redemption to the Public Warrant holders.

We may not redeem the Public Warrants as described above unless a registration statement under the Securities Act covering the issuance of the common stock issuable upon exercise of the warrants is then effective and a current prospectus relating to those shares of common stock is available throughout the 30-day redemption period. If and when the Public Warrants become redeemable by us, we may exercise our redemption right even if we are unable to register or qualify the underlying securities for sale under all applicable state securities laws.

We have established the last of the redemption criteria discussed above to prevent a redemption call unless there is at the time of the call a significant premium to the Public Warrant exercise price. If the foregoing conditions are satisfied and we issue a notice of redemption of the Public Warrants, each Public Warrant holder will be entitled to exercise its Public Warrant prior to the scheduled redemption date. However, the price of the common stock may fall below the \$18.00 redemption trigger price (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) as well as the \$11.50 (for whole shares) warrant exercise price after the redemption notice is issued.

Redemption of Public Warrants when the price per share of common stock equals or exceeds \$10.00.

We may redeem the outstanding Public Warrants:

- in whole and not in part;
- at \$0.10 per warrant upon a minimum of 30 days’ prior written notice of redemption provided that holders will be able to exercise their warrants on a cashless basis prior to redemption and receive that number of shares determined by reference to the table below, based on the redemption date and the “fair market value” of the common stock except as otherwise described below; and
- if, and only if, the closing price of the common stock equals or exceeds \$10.00 per share (as adjusted for adjustments to the number of shares issuable upon exercise or the exercise price of a warrant as described below under the heading “— Anti-Dilution Adjustments”) for any 20 trading days within the 30-trading day period ending three trading days before we send the notice of redemption to the Public Warrant holders.

Beginning on the date the notice of redemption is given until the Public Warrants are redeemed or exercised, holders may elect to exercise their Public Warrants on a cashless basis. The numbers in the table below represent the number of shares of common stock that a Public Warrant holder will receive upon such cashless exercise in connection with a redemption by New LanzaTech pursuant to this redemption feature, based on the “fair market value” of common stock on the corresponding redemption date (assuming holders elect to exercise their Public Warrants and such warrants are not redeemed for \$0.10 per warrant), determined for these purposes based on volume weighted average price of common stock during the 10 trading days immediately following the date on which the notice of redemption is sent to the holders of Public Warrants, and the number of months that the corresponding redemption date precedes the expiration date of the warrants, each as set forth in the table below. We will provide the Public Warrant holders with the final fair market value no later than one business day after the 10-trading day period described above ends.

The share prices set forth in the column headings of the table below will be adjusted as of any date on which the number of shares issuable upon exercise of a Public Warrant or the exercise price of a Public Warrant is adjusted as set forth under the heading “— *Anti-Dilution Adjustments*” below. If the number of shares issuable upon exercise of a Public Warrant is adjusted, the adjusted share prices in the column headings will equal the share prices immediately prior to such adjustment, multiplied by a fraction, the numerator of which is the number of shares deliverable upon exercise of a Public Warrant immediately prior to such adjustment and the denominator of which is the number of shares deliverable upon exercise of a Public Warrant as so adjusted. The number of shares in the table below shall be adjusted in the same manner and at the same time as the number of shares issuable upon exercise of a Public Warrant. If the exercise price of a Public Warrant is adjusted, (a) in the case of an adjustment pursuant to the second paragraph under the heading “— *Other Terms*” below, the adjusted share prices in the column headings will equal the unadjusted share price multiplied by a fraction, the numerator of which is the higher of the Market Value and the Newly Issued Price as set forth under the heading “— *Other Terms*” and the denominator of which is \$10.00 and (b) in the case of an adjustment pursuant to the second paragraph under the heading “— *Anti-Dilution*

Adjustments” below, the adjusted share prices in the column headings will equal the unadjusted share price less the decrease in the exercise price of a public warrant pursuant to such exercise price adjustment.

Redemption Date (period to expiration of Public Warrants)	Fair Market Value of common stock								
	<10.00	11.00	12.00	13.00	14.00	15.00	16.00	17.00	>18.00
60 months	0.261	0.281	0.297	0.311	0.324	0.337	0.348	0.358	0.361
57 months	0.257	0.277	0.294	0.310	0.324	0.337	0.348	0.358	0.361
54 months	0.252	0.272	0.291	0.307	0.322	0.335	0.347	0.357	0.361
51 months	0.246	0.268	0.287	0.304	0.320	0.333	0.346	0.357	0.361
48 months	0.241	0.263	0.283	0.301	0.317	0.332	0.344	0.356	0.361
45 months	0.235	0.258	0.279	0.298	0.315	0.330	0.343	0.356	0.361
42 months	0.228	0.252	0.274	0.294	0.312	0.328	0.342	0.355	0.361
39 months	0.221	0.246	0.269	0.290	0.309	0.325	0.340	0.354	0.361
36 months	0.213	0.239	0.263	0.285	0.305	0.323	0.339	0.353	0.361
33 months	0.205	0.232	0.257	0.280	0.301	0.320	0.337	0.352	0.361
30 months	0.196	0.224	0.250	0.274	0.297	0.316	0.335	0.351	0.361
27 months	0.185	0.214	0.242	0.268	0.291	0.313	0.332	0.350	0.361
24 months	0.173	0.204	0.233	0.260	0.285	0.308	0.329	0.348	0.361
21 months	0.161	0.193	0.223	0.252	0.279	0.304	0.326	0.347	0.361
18 months	0.146	0.179	0.211	0.242	0.271	0.298	0.322	0.345	0.361
15 months	0.130	0.164	0.197	0.230	0.262	0.291	0.317	0.342	0.361
12 months	0.111	0.146	0.181	0.216	0.250	0.282	0.312	0.339	0.361
9 months	0.090	0.125	0.162	0.199	0.237	0.272	0.305	0.336	0.361
6 months	0.065	0.099	0.137	0.178	0.219	0.259	0.296	0.331	0.361
3 months	0.034	0.065	0.104	0.150	0.197	0.243	0.286	0.326	0.361
0 months	—	—	0.042	0.115	0.179	0.233	0.281	0.323	0.361

The exact fair market value and redemption date may not be set forth in the table above, in which case, if the fair market value is between two values in the table or the redemption date is between two redemption dates in the table, the number of shares of common stock to be issued for each Public Warrant exercised will be determined by a straight-line interpolation between the number of shares set forth for the higher and lower fair market values and the earlier and later redemption dates, as applicable, based on a 365 or 366-day year, as applicable. For example, if the volume weighted average price of common stock during the 10 trading days immediately following the date on which the notice of redemption is sent to the holders of the Public Warrants is \$11.00 per share, and at such time there are 57 months until the expiration of the warrants, holders may choose to, in connection with this redemption feature, exercise their Public Warrants for 0.277 shares of common stock for each whole public warrant. For an example where the exact fair market value and redemption date are not as set forth in the table above, if the volume weighted average price of common stock during the 10 trading days immediately following the date on which the notice of redemption is sent to the holders of the Public Warrants is \$13.50 per share, and at such time there are 38 months until the expiration of the Public Warrants, holders may choose to, in connection with this redemption feature, exercise their Public Warrants for 0.298 shares of common stock for each whole Public Warrant. In no event will the Public Warrants be exercisable on a cashless basis in connection with this redemption feature for more than 0.361 shares of common stock per warrant (subject to adjustment). Finally, as reflected in the table above, if the Public Warrants are out of the money and about to expire, they cannot be exercised on a cashless basis in connection with a redemption by us pursuant to this redemption feature, since they will not be exercisable for any shares of common stock.

This redemption feature differs from the typical warrant redemption features used in other blank check offerings, which typically only provide for a redemption of warrants for cash (other than the Private Placement Warrants) when the trading price for the underlying common stock exceeds \$18.00 per share for a specified period

of time. This redemption feature is structured to allow for all of the outstanding Public Warrants to be redeemed when the common stock is trading at or above \$10.00 per share, which may be at a time when the trading price of the common stock is below the exercise price of the Public Warrants. We have established this redemption feature to provide us with the flexibility to redeem the Public Warrants without the warrants having to reach the \$18.00 per share threshold set forth above under “— *Redemption of Public Warrants when the price per share of the common stock equals or exceeds \$18.00.*” Holders choosing to exercise their Public Warrants in connection with a redemption pursuant to this feature will, in effect, receive a number of shares for their Public Warrants based on an option pricing model with a fixed volatility input. This redemption right provides us with an additional mechanism by which to redeem all of the outstanding Public Warrants, and therefore have certainty as to our capital structure as the Public Warrants would no longer be outstanding and would have been exercised or redeemed and we will be required to pay the redemption price to Public Warrant holders if we choose to exercise this redemption right and it will allow us to quickly proceed with a redemption of the Public Warrants if we determine it is in our best interest to do so. As such, we would redeem the Public Warrants in this manner when we believe it is in our best interest to update our capital structure to remove the Public Warrants and pay the redemption price to the Public Warrant holders.

As stated above, we can redeem the Public Warrants when the common stock is trading at a price starting at \$10.00, which is below the exercise price of \$11.50, because it will provide certainty with respect to our capital structure and cash position while providing Public Warrant holders with the opportunity to exercise their warrants on a cashless basis for the applicable number of shares. If we choose to redeem the Public Warrant when the common stock is trading at a price below the exercise price of the Public Warrants, this could result in the Public Warrant holders receiving fewer shares of common stock than they would have received if they had chosen to wait to exercise their Public Warrants for Common Stock if and when such Common Stock was trading at a price higher than the exercise price of \$11.50.

No fractional shares of common stock will be issued upon exercise. If, upon exercise, a holder would be entitled to receive a fractional interest in a share, we will round down to the nearest whole number of the number of shares of common stock to be issued to the holder.

Redemption Procedures

A holder of a Public Warrant may notify us in writing in the event it elects to be subject to a requirement that such holder will not have the right to exercise such Public Warrant, to the extent that after giving effect to such exercise, such person (together with such person’s affiliates), to the warrant agent’s actual knowledge, would beneficially own in excess of 4.9% or 9.8% (as specified by the holder) of the common stock outstanding immediately after giving effect to such exercise.

Anti-Dilution Adjustments

If the number of outstanding shares of common stock is increased by a capitalization or share dividend payable in Common Stock, or by a split-up of shares of common stock or other similar event, then, on the effective date of such stock dividend, split-up or similar event, the number of shares of common stock issuable on exercise of each whole Public Warrant will be increased in proportion to such increase in the outstanding ordinary stock. A rights offering made to all or substantially all holders of common stock entitling holders to purchase common stock at a price less than the “historical fair market value” (as defined below) will be deemed a share dividend of a number of shares of common stock equal to the product of (i) the number of shares of common stock actually sold in such rights offering (or issuable under any other equity securities sold in such rights offering that are convertible into or exercisable for common stock) and (ii) one minus the quotient of (x) the price per share of common stock paid in such rights offering and (y) the historical fair market value. For these purposes, (a) if the rights offering is for securities convertible into or exercisable for common stock, in determining the price payable for Common Stock, there will be taken into account any consideration received for such rights, as well as any additional amount payable upon exercise or conversion and (b) “*historical fair market value*” means the volume weighted average price of common stock as reported during the 10 trading day period ending on the trading day prior to the first date on which the common stock trade on the applicable exchange or in the applicable market, regular way, without the right to receive such rights.

In addition, if we, at any time while the warrants are outstanding and unexpired, pay a dividend or make a distribution in cash, securities or other assets to the holders of shares of common stock on account of such shares (or other securities into which the warrants are convertible), other than (a) as described above, or (b) any cash dividends or cash distributions which, when combined on a per share basis with all other cash dividends and cash distributions paid on the common stock during the 365-day period ending on the date of declaration of such dividend or distribution does not exceed \$0.50 (as adjusted to appropriately reflect any other adjustments and excluding cash dividends or cash distributions that resulted in an adjustment to the exercise price or to the number of shares of common stock issuable on exercise of each Public Warrant) but only with respect to the amount of the aggregate cash dividends or cash distributions equal to or less than \$0.50 per share, then the warrant exercise price will be decreased, effective immediately after the effective date of such event, by the amount of cash and/or the fair market value of any securities or other assets paid on each share of common stock in respect of such event.

If the number of outstanding shares of common stock is decreased by a consolidation, combination, reverse stock split or reclassification of shares of common stock or other similar event, then, on the effective date of such consolidation, combination, reverse stock split, reclassification or similar event, the number of shares of common stock issuable on exercise of each Public Warrant will be decreased in proportion to such decrease in outstanding shares of common stock.

Whenever the number of shares of common stock purchasable upon the exercise of the Public Warrants is adjusted, as described above, the Public Warrant exercise price will be adjusted by multiplying the Public Warrant exercise price immediately prior to such adjustment by a fraction (x) the numerator of which will be the number of shares of common stock purchasable upon the exercise of the Public Warrants immediately prior to such adjustment, and (y) the denominator of which will be the number of shares of common stock so purchasable immediately thereafter.

In case of any reclassification or reorganization of the outstanding shares of common stock (other than those described above or that solely affects the par value of such shares of common stock), or in the case of any merger or consolidation of LanzaTech with or into another corporation (other than a consolidation or merger in which we are the continuing corporation and that does not result in any reclassification or reorganization of the outstanding shares of common stock), or in the case of any sale or conveyance to another corporation or entity of the assets or other property of LanzaTech as an entirety or substantially as an entirety in connection with which we are dissolved, the holders of the Public Warrants will thereafter have the right to purchase and receive, upon the basis and upon the terms and conditions specified in the Public Warrants and in lieu of the common stock immediately theretofore purchasable and receivable upon the exercise of the rights represented thereby, the kind and amount of shares of common stock or other securities or property (including cash) receivable upon such reclassification, reorganization, merger or consolidation, or upon a dissolution following any such sale or transfer, that the holder of the Public Warrants would have received if such holder had exercised their Public Warrants immediately prior to such event. However, if less than 70% of the consideration receivable by the holders of common stock in such a transaction is payable in the form of common stock in the successor entity that is listed for trading on a national securities exchange or is quoted in an established over-the-counter market, or is to be so listed for trading or quoted immediately following such event, and if the registered holder of the Public Warrant properly exercises the Public Warrant within 30 days following public disclosure of such transaction, the Public Warrant exercise price will be reduced as specified in the warrant agreement based on the Black-Scholes value (as defined in the warrant agreement) of the Public Warrant. The purpose of such exercise price reduction is to provide additional value to holders of the Public Warrants when an extraordinary transaction occurs during the exercise period of the Public Warrants pursuant to which the holders of the warrants otherwise do not receive the full potential value of the Public Warrants in order to determine and realize the option value component of the Public Warrant. This formula is to compensate the Public Warrant holder for the loss of the option value portion of the Public Warrant due to the requirement that the Public Warrant holder exercise the Public Warrant within 30 days of the event. The Black-Scholes model is an accepted pricing model for estimating fair market value where no quoted market price for an instrument is available.

Other Terms

The Public Warrants are issued in registered form under a 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, and that all other modifications or amendments will require the vote or written consent of the holders of at least 50% of the then outstanding Public Warrants, and, solely with respect to any amendment to the terms of the Private Placement Warrants, a majority of the then outstanding Private Placement Warrants.

The Public Warrants may be exercised upon surrender of the warrant certificate on or prior to the expiration date at the offices of the warrant agent, with the exercise form on the reverse side of the warrant certificate completed and executed as indicated, accompanied by full payment of the exercise price (or on a cashless basis, if applicable), by certified or official bank check payable to us, for the number of Public Warrants being exercised. The Public Warrant holders do not have the rights or privileges of holders of common stock and any voting rights until they exercise their Public Warrants and receive common stock. After the issuance of common stock upon exercise of the Public Warrants, each holder will be entitled to one vote for each share held of record on all matters to be voted on by stockholders.

No fractional shares will be issued upon exercise of the Public Warrants. If, upon exercise of the Public Warrants, a holder would be entitled to receive a fractional interest in a share, we will, upon exercise, round down to the nearest whole number of shares of common stock to be issued to the warrant holder.

Private Placement Warrants

Except as described below, the Private Placement Warrants have terms and provisions that are identical to those of the Public Warrants. The Private Placement Warrants are not redeemable by us so long as they are held by the Sponsor or its permitted transferees. The Sponsor, or its permitted transferees, has the option to exercise the Private Placement Warrants on a cashless basis. If the Private Placement Warrants are held by holders other than the Sponsor or its permitted transferees, the Private Placement Warrants will be redeemable by us in all redemption scenarios and exercisable by the holders on the same basis as the Public Warrants.

If holders of the Private Placement Warrants elect to exercise them on a cashless basis, they would pay the exercise price by surrendering their 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 “Sponsor fair market value” (defined below) over the exercise price of the warrants by (y) the Sponsor fair market value. For these purposes, the “*Sponsor fair market value*” shall mean the average reported closing price of the common stock for the 10 trading days ending on the third trading day prior to the date on which the notice of warrant exercise is sent to the warrant agent. The reason that these warrants will be exercisable on a cashless basis so long as they are held by the Sponsor and its permitted transferees is because if they remain affiliated with us, their ability to sell our securities in the open market will be significantly limited. We have policies in place that restrict insiders from selling our securities except during specific periods of time. Even during such periods of time when insiders will be permitted to sell our securities, an insider cannot trade in our securities if he or she is in possession of material non-public information. Accordingly, unlike public stockholders who could exercise their warrants and sell the common stock received upon such exercise freely in the open market in order to recoup the cost of such exercise, the insiders could be significantly restricted from selling such securities. As a result, we believe that allowing the holders to exercise such warrants on a cashless basis is appropriate.

Shortfall Warrants

On March 27, 2023, we issued an aggregate of 2,073,486 Shortfall Warrants to ACM and 2,010,000 Shortfall Warrants to Vellar Opportunity Fund SPV LLC - Series 10 pursuant to the Forward Purchase Agreement, as further described in “— Forward Purchase Agreement.” Each Shortfall Warrant entitles the registered holder to purchase one share of common stock at a price of \$10.00 per share, subject to adjustment in the event that we sell, grant or otherwise issue common stock or common stock equivalents at an effective price less than the then current exercise price of the Shortfall Warrants, at any time commencing on March 27, 2023. Pursuant to the warrant agreement, a Shortfall Warrant holder may exercise its Shortfall Warrants only for a whole number of shares of common stock.

This means that only a whole Shortfall Warrant may be exercised at any given time by a Shortfall Warrant holder. The Shortfall Warrants will expire on March 27, 2028 at 5:00 p.m., New York City time.

We are not obligated to deliver any shares of common stock pursuant to the exercise of a Shortfall Warrant and will have no obligation to settle such Shortfall Warrant exercise unless (i) a registration statement under the Securities Act with respect to the shares of common stock underlying the Shortfall Warrants is then effective, subject to satisfaction of our obligations described in “— Forward Purchase Agreement” with respect to registration, or (ii) either (a) the shares of common stock pursuant to the exercise of a Shortfall Warrant are eligible for resale by the holder without volume or manner-of-sale limitations pursuant to Rule 144 (assuming cashless exercise of the Shortfall Warrants), and (b) otherwise by physical delivery of a certificate. In the event that these conditions are not satisfied with respect to a Shortfall Warrant, the holder of such Shortfall Warrant will not be entitled to exercise such Shortfall Warrant and such Shortfall Warrant may have no value and expire worthless. In no event will we be required to net cash settle any Shortfall Warrant.

A holder of a Shortfall Warrant may exercise such warrants on a “cashless basis.” In such event, each holder would pay the exercise price by surrendering the Shortfall Warrants for that number of shares of common stock equal to $(A-B) \times (X)$ by (A) , where: (A) is the volume-weighted average price of our common stock on the trading day immediately preceding the date of the applicable notice of exercise (subject to certain adjustments depending on the timing of the notice of exercise), (B) is the exercise price of the Shortfall Warrant, as adjusted; and (X) is the number of shares of common stock that would be issuable upon exercise of the Shortfall Warrant in accordance with its terms if such exercise were by means of a cash exercise.

Each Shortfall Warrant may be exercised in part or in full. If we fail for any reason to deliver to the holder the applicable shares before the required date, we must pay certain liquidated damages to the holder.

We have agreed to certain registration rights with regard to the Shortfall Warrants described in “— Forward Purchase Agreement.”

On May 13, 2023, we amended the Shortfall Warrant agreements in order to effect the reclassification of the Shortfall Warrants as equity. The form of amended Shortfall Warrant is attached as Exhibit 4.25.1 to the registration statement of which this prospectus forms a part.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors of corporations and their stockholders for monetary damages for breaches of directors’ fiduciary duties, subject to certain exceptions. The Charter includes a provision that eliminates the personal liability of directors for damages for any breach of fiduciary duty as a director where, in civil proceedings, the person acted in good faith and in a manner that person reasonably believed to be in or not opposed to the best interests of LanzaTech or, in criminal proceedings, where the person had no reasonable cause to believe that his or her conduct was unlawful.

The Bylaws provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We are also expressly authorized to carry directors’ and officers’ liability insurance providing indemnification for our directors, officers, and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, advancement and indemnification provisions in the Charter and Bylaws may discourage stockholders from bringing lawsuits against directors for breaches of their fiduciary duties. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officer pursuant to these indemnification provisions.

Dissenters' Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, stockholders will have appraisal rights in connection with a merger or consolidation of LanzaTech. Pursuant to the DGCL, stockholders who properly request and perfect appraisal rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in LanzaTech's name to procure a judgment in LanzaTech's favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

Transfer Agent and Registrar

The transfer agent for our capital stock is Continental Stock Transfer & Trust Company.

Listing of Common Stock

Our common stock and Public Warrants are listed on Nasdaq under the symbols "LNZA" and "LNZAW," respectively.

SELLING STOCKHOLDERS

This prospectus relates to the resale by the selling stockholders from time to time of up to 4,774,276 Private Placement Warrants, up to 4,083,486 Shortfall Warrants, and up to 203,436,682 shares of common stock, which consists of (i) up to 18,500,000 PIPE Shares issued in the PIPE Investment, (ii) up to 4,774,276 shares of common stock issuable upon the exercise of the Private Placement Warrants, (iii) up to 5,000,000 shares of common stock issuable to Brookfield upon the conversion of the Brookfield SAFE, (iv) up to 300,000 shares of common stock issuable upon the exercise of the AM Warrant, (v) up to 2,164,839 shares of common stock held by certain selling stockholders, (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders, (vii) up to 5,916,514 shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement, (viii) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, and (ix) up to 160,951,264 shares of common stock pursuant to the Registration Rights Agreement. We will not receive any proceeds from the sale of the Private Placement Warrants, the Shortfall Warrants or of the common stock by the selling stockholders pursuant to this prospectus.

The selling stockholders may from time to time offer and sell any or all of the Private Placement Warrants, the Shortfall Warrants and common stock set forth below pursuant to this prospectus and any accompanying prospectus supplement. As used in this prospectus, the term “selling stockholders” includes the persons listed in the table below, together with any additional selling stockholders listed in a subsequent amendment to this prospectus, and their pledgees, donees, transferees, assignees, successors, designees and others who later come to hold any of the selling stockholders’ interests in the common stock, other than through a public sale.

Except as set forth in the footnotes below, the following table sets forth certain information as of October 4, 2024 regarding the beneficial ownership of the Private Placement Warrants, the Shortfall Warrants and common stock by the selling stockholders and the Private Placement Warrants, the Shortfall Warrants and shares of common stock being offered by the selling stockholders. The applicable percentage ownership of the Private Placement Warrants is based on 4,774,276 Private Placement Warrants outstanding as of October 4, 2024. The applicable percentage ownership of the Shortfall Warrants is based on 4,083,486 Shortfall Warrants outstanding as of October 4, 2024. The applicable percentage ownership of common stock is based on 197,782,055 shares of common stock outstanding as of October 4, 2024. Information with respect to the Private Placement Warrants, the Shortfall Warrants and shares of common stock owned beneficially after the offering assumes the sale of all of the Private Placement Warrants, the Shortfall Warrants and shares of common stock registered hereby. The selling stockholders may offer and sell some, all or none of their Private Placement Warrants, Shortfall Warrants and shares of common stock.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. A person is a “beneficial owner” of a security if that person has or shares “voting power,” which includes the power to vote or to direct the voting of the security, or “investment power,” which includes the power to dispose of or to direct the disposition of the security, or has the right to acquire such powers within 60 days.

Unless otherwise noted in the footnotes to the following table, and subject to applicable community property laws, the persons and entities named in the table have sole voting and investment power with respect to their beneficially owned Private Placement Warrants, Shortfall Warrants and common stock.

Please see the section titled “*Plan of Distribution*” in this prospectus for further information regarding the selling stockholders’ method of distributing these securities.

Name of Selling Stockholder	Shares of Common Stock				Warrants to Purchase Common Stock			
	Number Beneficially Owned Prior to Offering	Number Registered for Sale Hereby ⁽¹⁾	Number Beneficially Owned After Offering	Percent Owned After Offering	Number Beneficially Owned Prior to Offering	Number Registered for Sale Hereby ⁽¹⁾	Number Beneficially Owned After Offering	Percent Owned After Offering
Activant Capital IV, LP ⁽²⁾	1,212,500	1,212,500	—	—	—	—	—	—
ACM ARRT H LLC ⁽³⁾	5,000,000	5,000,000	—	—	2,073,486	2,073,486	—	—
Adage Capital Partners, L.P. ⁽⁴⁾	74,250	74,250	—	—	—	—	—	—
AMCI Group, LLC Series 35 ⁽⁵⁾	2,799,835	2,799,835	—	—	—	—	—	—
AMCI Sponsor II LLC ⁽⁶⁾	4,774,276	4,774,276	—	—	4,774,276	4,774,276	—	—
ArcelorMittal XCarb S.à r.l. ⁽⁷⁾	3,300,000	3,300,000	—	—	—	—	—	—
Aristeia Capital, LLC ⁽⁸⁾	49,499	49,499	—	—	—	—	—	—
Baowu Clean Energy Co., Ltd.	1,920,380	1,920,380	—	—	—	—	—	—
BASF Venture Capital GmbH ⁽⁹⁾	3,335,877	3,335,877	—	—	—	—	—	—
BGTF LT Aggregator LP ⁽¹⁰⁾	5,000,000	5,000,000	—	—	—	—	—	—
Boat Harbour Limited ⁽¹¹⁾	1,869,239	1,869,239	—	—	—	—	—	—
CCSRF Fuel (HK) Investment Limited ⁽¹²⁾	4,103,718	4,103,718	—	—	—	—	—	—
Dialog (Labuan) Ltd	773,063	773,063	—	—	—	—	—	—
Gothic Corporation ⁽¹³⁾	596,486	596,486	—	—	—	—	—	—
Gothic ERP LLC ⁽¹⁴⁾	113,114	113,114	—	—	—	—	—	—
Gothic HSP Corporation ⁽¹⁵⁾	113,114	113,114	—	—	—	—	—	—
Guardians of New Zealand Superannuation ⁽¹⁶⁾	33,263,337	33,263,337	—	—	—	—	—	—
Highbridge Capital Management LLC ⁽¹⁷⁾	49,500	49,500	—	—	—	—	—	—
IOCL Singapore Pte Ltd ⁽¹⁸⁾	6,025,762	6,025,762	—	—	—	—	—	—
K One W One (No. 2) Ltd ⁽¹⁹⁾	2,365,019	2,365,019	—	—	—	—	—	—
K One W One (No. 3) Ltd ⁽²⁰⁾	6,413,480	6,413,480	—	—	—	—	—	—
Kepos Alpha Master Fund L.P. ⁽²¹⁾	29,799	29,799	—	—	—	—	—	—
Kepos Special Opportunities Master Fund L.P. ⁽²²⁾	19,701	19,701	—	—	—	—	—	—
Entities affiliated with Khosla Ventures ⁽²³⁾	43,839,900	43,839,900	—	—	—	—	—	—
Land Noble Investments Limited ⁽²⁴⁾	1,452,718	1,452,718	—	—	—	—	—	—
LCP Extension Fund, LLC ⁽²⁵⁾	147,710	147,710	—	—	—	—	—	—
Meteora Capital Partners, LP ⁽²⁶⁾	46,684	46,684	—	—	—	—	—	—

Mitsui & Co. Ltd. ⁽²⁷⁾	6,310,884	6,310,884	—	—	—	—	—	—
Novo Holdings A/S ⁽²⁸⁾	15,814,845	15,814,845	—	—	—	—	—	—
Oxy Low Carbon Ventures, LLC ⁽²⁹⁾	2,800,000	2,800,000	—	—	—	—	—	—
Pescadero Capital, LLC	200,000	200,000	—	—	—	—	—	—
PETRONAS Technology Ventures SDN BHD ⁽³⁰⁾	3,865,329	3,865,329	—	—	—	—	—	—
Primetals Technologies Austria GmbH ⁽³¹⁾	1,362,175	1,362,175	—	—	—	—	—	—
Puig International SA ⁽³²⁾	500,000	500,000	—	—	—	—	—	—
Qiming Managing Directors Fund II, LP ⁽³³⁾	66,007	66,007	—	—	—	—	—	—
Qiming Venture Partners II, LP ⁽³⁴⁾	4,536,087	4,536,087	—	—	—	—	—	—
Qiming Venture Partners II-C, LP ⁽³⁵⁾	397,204	397,204	—	—	—	—	—	—
Saints Ventures II, L.P. ⁽³⁶⁾	150,855	150,855	—	—	—	—	—	—
Sandia Investment Management, LP ⁽³⁷⁾	261,750	261,750	—	—	—	—	—	—
SBCVC Fund III Company Limited ⁽³⁸⁾	104,852	104,852	—	—	—	—	—	—
P.Schoenfeld Asset Management LP ⁽³⁹⁾	49,500	49,500	—	—	—	—	—	—
Sekisui Chemical Co., Ltd. ⁽⁴⁰⁾	967,621	967,621	—	—	—	—	—	—
Shaolin Capital Partners ⁽⁴¹⁾	49,499	49,499	—	—	—	—	—	—
SHV Energy N.V. ⁽⁴²⁾	750,000	750,000	—	—	—	—	—	—
Sinopec Capital Co., Ltd. ⁽⁴³⁾	17,112,976	17,112,976	—	—	—	—	—	—
Suncor Energy, Inc. ⁽⁴⁴⁾	3,899,693	3,899,693	—	—	—	—	—	—
Tenor Opportunity Master Fund, Ltd. ⁽⁴⁵⁾	25,000	25,000	—	—	—	—	—	—
The Board of Trustees of the Leland Stanford Junior University (SEVF II)	19,197	19,197	—	—	—	—	—	—
The Duke Endowment ⁽⁴⁶⁾	226,242	226,242	—	—	—	—	—	—
Traffigura US Holdings, Inc. ⁽⁴⁷⁾	500,000	500,000	—	—	—	—	—	—
UBS O'Connor LLC ⁽⁴⁸⁾	1,370	1,370	—	—	—	—	—	—
Vellar Opportunity Fund SPV LLC - Series 10 ⁽⁴⁹⁾	5,000,000	5,000,000	—	—	2,010,000	2,010,000	—	—
Woodside Energy Technologies Pty, Ltd. ⁽⁵⁰⁾	5,000,000	5,000,000	—	—	—	—	—	—
Brian Beem ⁽⁵¹⁾	298,148	298,148	—	—	—	—	—	—
Kate Burson ⁽⁵²⁾	19,968	19,968	—	—	—	—	—	—
Henry Copes ⁽⁵³⁾	7,142	7,142	—	—	—	—	—	—
Morgan Holmes ⁽⁵⁴⁾	17,854	17,854	—	—	—	—	—	—
Patrick Murphy ⁽⁵⁵⁾	177,890	177,890	—	—	—	—	—	—
Nimesh Patel ⁽⁵⁶⁾	318,148	318,148	—	—	—	—	—	—
Adrian Paterson ⁽⁵⁷⁾	19,968	19,968	—	—	—	—	—	—
Mark Pinho ⁽⁵⁸⁾	19,968	19,968	—	—	—	—	—	—
Sean Simpson ⁽⁵⁹⁾	3,473,674	3,473,674	—	—	—	—	—	—
Jill Watz ⁽⁶⁰⁾	19,968	19,968	—	—	—	—	—	—
Walker Woodson ⁽⁶¹⁾	32,059	32,059	—	—	—	—	—	—
Roger Wyse ⁽⁶²⁾	371,848	371,848	—	—	—	—	—	—
TOTAL	203,436,682	203,436,682	—	—	8,857,762	8,857,762	—	—

- The amounts set forth in this column are the number of shares of common stock that may be offered by each selling stockholder using this prospectus. These amounts do not represent any other shares of our common stock that the selling stockholder may own beneficially or otherwise.
- Steve Sarracino has voting and/or investment power over the shares held by Activant Capital IV, LP.
- Consists of (i) 2,926,514 shares of common stock, (ii) 2,073,486 shares of common stock that are issuable upon the exercise of Shortfall Warrants, and (iii) 2,073,486 Shortfall Warrants. On February 3, 2023, AMCI, Legacy LanzaTech and ACM entered into the Forward Purchase Transaction, as described in the section entitled "Description of Securities — Forward Purchase Agreement." The securities are held directly by ACM ARRT H LLC, of which Atalaya Capital Management LP ("ACM") is the Manager and has investment and dispositive power over the shares. Ivan Zinn is the Chief Investment Officer of ACM and has voting and dispositive power over the shares. The business address of ACM ARRT H LLC and ACM is One Rockefeller Plaza, 32nd Floor New York, NY 10020.
- Consists of 74,250 founder shares of LanzaTech common stock allocated to investors managed by Adage Capital Partners, L.P. Bob Atchinson and Phillip Gross are the managing members of Adage Capital Advisors, L.L.C., which is the managing member of Adage Capital Partners GP, L.L.C., which is the general partner of Adage Capital Partners, L.P., and each such person or entity may be deemed the beneficial owner of such shares. The address of Adage Capital Partners, L.P. is 200 Clarendon Street, 52nd Floor, Boston MA 02116.
- AMCI Group, LLC Series 35 is a member of AMCI Sponsor II LLC. Hans Mende, former non-executive chairman of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination, is the chairman of AMCI Group LLC, Series 35 and may be deemed to have voting or investment power with respect to all shares of common stock held by AMCI Group LLC, Series 35.
- Consists of (i) 4,774,276 shares of common stock that are issuable upon the exercise of Private Placement Warrants, and (ii) 4,774,276 Private Placement Warrants. Brian Beem is the sole managing member of AMCI Sponsor II LLC. Mr. Beem is the former president and a member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination. Mr. Beem may be deemed to have voting or investment power with respect to the securities held by AMCI Sponsor II LLC.
- Consists of 3,000,000 shares of common stock held by ArcelorMittal XCarb S.à r.l. ("XCarb") and 300,000 shares of common stock subject to warrants that are exercisable within 60 days of October 4, 2024. XCarb is a commercial partner of LanzaTech. XCarb is a direct wholly-owned subsidiary of AM Global Holding S.à r.l. and an indirect wholly-owned subsidiary of ArcelorMittal, a publicly traded company, each of which may be deemed to have beneficial ownership of the shares held by XCarb. The address for XCarb is 24-26, boulevard d'Avranches, L-1160 Luxembourg, Grand Duchy of Luxembourg.
- Consists of (i) 33,349 shares of common stock held by Aristeia Master, L.P., (ii) 3,274 shares of common stock held by ASIG International Limited, (iii) 8,869 shares of common stock held by Blue Peak Limited, (iv) 2,960 shares of common stock held by DS Liquid Div RVA ARST, LLC, and (v) 1,047 shares of common stock held by Windermere Cayman Fund Limited (each an "Aristeia Fund" and collectively, the "Aristeia Funds"). Aristeia Capital, L.L.C. and Aristeia Advisors, L.L.C. (collectively, "Aristeia") may be deemed the beneficial owners of the securities described herein in their capacity as the investment manager, trading manager, and/or general partner, as the case may be, of the Aristeia Funds. As investment manager, trading advisor and/or general partner of each Aristeia Fund, Aristeia has voting and investment control with respect to the securities held by each Aristeia Fund. Anthony M. Frascella and William R. Techar are the co-Chief Investment Officers of Aristeia. Each of Aristeia and such individuals disclaims beneficial ownership of the securities referenced herein except to the extent of its or his direct or indirect economic interest in the Aristeia Funds.
- BASF Venture Capital GmbH is a commercial partner of LanzaTech. Markus Solibieda, managing director, has direct voting and investment power over the shares held by BASF Venture Capital GmbH.
- BGTF LT Aggregator LP is an affiliate of Brookfield Renewable Power Inc., a commercial partner of LanzaTech. The general partner of BGTF LT Aggregator LP is BGTF Bermuda GP Limited, an affiliate of Brookfield Corporation. BAM Partners Trust ("BAM Partnership") owns all of Brookfield Corporation's class B limited voting shares entitling it to appoint one-half of the board of directors of Brookfield Corporation. The beneficial interests in the BAM Partnership, and the voting interests in its trustee ("BAM Partners"), are held as follows: one-third by Jack L. Cockwell, one-third by Bruce Flatt, and one-third jointly by Brian W. Kingston, Brian D. Lawson, Cyrus Madon, Samuel J.B. Pollock and Sachin G. Shah in equal parts. No single individual or entity controls the BAM Partnership.
- Voting and investment decisions with respect to the shares held by Boat Harbour are made by its board of directors, and none of the directors are deemed to have or share beneficial ownership of the shares held by Boat Harbour Limited. Consists of 1,803,619 shares of common stock and 65,620 shares of common stock underlying stock options.

- (12) Prior to the consummation of the Business Combination, CCSRF Fuel (HK) Investment Limited had the right to appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. Any action by CCSRF Fuel (HK) Investment Limited with respect to its shares, including voting and dispositive decisions, requires a unanimous vote by the investment committee, which consists of more than one member. Because voting and dispositive decisions must be unanimous, none of the investment committee members is deemed to be a beneficial owner of securities held by CCSRF Fuel (HK) Investment Limited. Accordingly, none of the members of the investment committee is deemed to have or share beneficial ownership of the shares held by CCSRF Fuel (HK) Investment Limited. The business address of CCSRF Fuel (HK) Investment Limited is 8/F Capital Mansion, No. 6 Xinyuan South Road, Chaoyang District, Beijing, China.
- (13) DUMAC, Inc., as the investment manager of Gothic Corporation, may be deemed to beneficially own the shares of common stock of the issuer held by Gothic Corporation. Neal F. Triplett, as the President of DUMAC, Inc., may be deemed to beneficially own the shares of common stock of the issuer held by Gothic Corporation. The address of each of the persons referenced in this footnote is 280 S. Mangum Street, Suite 210, Durham, NC 27701.
- (14) DUMAC, Inc., as the investment manager of Gothic ERP LLC, may be deemed to beneficially own the shares of common stock of the issuer held by Gothic ERP LLC. Neal F. Triplett, as the President of DUMAC, Inc., may be deemed to beneficially own the shares of common stock of the issuer held by Gothic ERP LLC. The address of each of the persons referenced in this footnote is 280 S. Mangum Street, Suite 210, Durham, NC 27701.
- (15) DUMAC, Inc., as the investment manager of Gothic HSP Corporation, may be deemed to beneficially own the shares of common stock of the issuer held by Gothic HSP Corporation. Neal F. Triplett, as the President of DUMAC, Inc., may be deemed to beneficially own the shares of common stock of the issuer held by Gothic HSP Corporation. The address of each of the persons referenced in this footnote is 280 S. Mangum Street, Suite 210, Durham, NC 27701.
- (16) Shares of common stock held by Guardians of New Zealand Superannuation, as the manager and administrator of the New Zealand Superannuation Fund. Prior to the consummation of the Business Combination, Guardians of New Zealand Superannuation had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. Matt Whineray, Chief Executive Officer, has direct voting and investment power over the shares held by Guardians of New Zealand Superannuation. The business address of Guardians of New Zealand Superannuation is Level 12, 21 Queen Street, Auckland 1010, New Zealand.
- (17) Highbridge Capital Management, LLC ("HCM"), the trading manager of Highbridge Convertible Dislocation Fund, L.P., and Highbridge Tactical Credit Master Fund, L.P. (together the "Highbridge Funds"), has beneficial ownership of the shares held by the Highbridge Funds. The Highbridge Funds disclaim beneficial ownership of these shares. The address of HCM is 277 Park Avenue, 23rd Floor, New York, NY 10172, and the address of the Highbridge Funds is c/o Maples Corporate Services Limited, PO Box 309, Ugland House, South Church Street, George Town, Grand Cayman KY1-1104, Cayman Islands.
- (18) Prior to the consummation of the Business Combination, IOCL Singapore Pte Ltd had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination.
- (19) Stephen Robert Tindall has voting and/or investment control over the shares held by K One W One (No. 2) Ltd.
- (20) Stephen Robert Tindall has voting and/or investment control over the shares held by K One W One (No. 3) Ltd.
- (21) Kepos Capital LP is the investment manager of the selling securityholder and Kepos Partners LLC is the general partner of the selling securityholder and each may be deemed to have voting and dispositive power with respect to the shares. The general partner of Kepos Capital LP is Kepos Capital GP LLC ("Kepos GP") and the managing member of Kepos Partners LLC is Kepos Partners MM LLC ("Kepos MM"). Mark Carhart controls Kepos GP and Kepos MM and, accordingly, may be deemed to have voting and dispositive power with respect to the shares held by this selling securityholder. Mr. Carhart disclaims beneficial ownership of the shares held by the selling securityholder.
- (22) Kepos Capital LP is the investment manager of the selling securityholder and Kepos Partners LLC is the general partner of the selling securityholder and each may be deemed to have voting and dispositive power with respect to the shares. The general partner of Kepos Capital LP is Kepos GP and the managing member of Kepos Partners LLC is Kepos MM. Mark Carhart controls Kepos GP and Kepos MM and, accordingly, may be deemed to have voting and dispositive power with respect to the shares held by this selling securityholder. Mr. Carhart disclaims beneficial ownership of the shares held by the selling securityholder.
- (23) Prior to the consummation of the Business Combination, certain affiliates of Khosla Ventures II, LP ("KV II") and Khosla Ventures III, LP ("KV III") had the right to appoint and elect, and did appoint and elect, two directors to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. Consists of (i) 13,875,332 shares of LanzaTech common stock held by KV III, (ii) 28,992,029 shares of LanzaTech common stock held by entities owned or controlled by Vinod Khosla, and (iii) 972,539 shares of LanzaTech common stock held by limited partners of KV II not affiliated with Vinod Khosla. Khosla Ventures Associates III, LLC ("KVA III") is the general partner of KV III. VK Services, LLC ("VK Services") is the Manager of KVA III. Vinod Khosla is the Managing Member of VK Services. As such, (i) each of KVA III and VK Services may be deemed to be the beneficial owners having shared voting power and shared investment power over 13,875,332 shares of LanzaTech common stock, and (ii) Vinod Khosla may be deemed to be the beneficial owner having shared voting power and shared investment power over 42,867,361 shares of LanzaTech common stock, and each disclaims beneficial ownership of such securities except to the extent of his or its pecuniary interest therein. The business address of Vinod Khosla and each of the other entities listed in this footnote is 2128 Sand Hill Road, Menlo Park, CA 94025.
- (24) Land Noble Investments Limited ("Land Noble") is the registered owner of the shares and is governed by a three member board of directors. Land Noble is wholly owned by CICC Growth Capital Fund I, L.P. ("CICC Fund"), which is controlled by its general partner, CICC Growth Capital Fund GP, Ltd. ("CICC GP"). CICC GP is governed by a three member board of directors. Additionally, the consent of a majority of the three-member investment committee of CICC Investment Management Co. Ltd. ("CICC Manager"), is required for any disposal of the shares by Land Noble. Land Noble, CICC Fund and CICC GP may be deemed to share beneficial ownership of the shares, but under the so-called "rule of three", neither the members of the boards of directors of Land Noble and CICC GP, nor the members of the investment committee of CICC Manager, are deemed beneficial owners of the shares. The business address of all of the foregoing entities is 35th Floor, SK Tower, No.6A Jianguomenwai Avenue, Chaoyang District, Beijing, China.
- (25) Saints Ventures II, LLC ("SVII LLC") is the manager of LCP Extension Fund, LLC. Any investment decision by SVII LLC requires the approval of two out of three of its managing members. Under the so-called "rule of three," because voting and dispositive decisions are made by two out of the three managing members of SVII LLC, none of the managing members is deemed to be a beneficial owner of securities held.
- (26) Meteora Capital Partners, LP ("MCP") holds shares of LanzaTech common stock. Meteora Capital, LLC ("Meteora Capital") serves as investment manager to MCP. Voting and investment power over the shares held by MCP resides with its investment manager, Meteora Capital. Mr. Vik Mittal serves as the managing member of Meteora Capital and may be deemed to be the beneficial owner of the shares. Mr. Mittal, however, disclaims any beneficial ownership of the shares held by such entities.
- (27) LanzaTech and Mitsui are party to certain collaboration and investment agreements described in the section entitled see the section entitled "*Business Overview — Key Collaboration Agreements*" included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023. Prior to the consummation of the Business Combination, Mitsui had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. No natural person has voting and/or investment power over the shares held by Mitsui & Co. Ltd.
- (28) Prior to the consummation of the Business Combination, Novo Holdings A/S had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. Novo Holdings A/S has the sole power to vote and dispose of the shares, and no individual or other entity is deemed to hold any beneficial ownership in the shares. The business address of Novo Holdings A/S is Tuborg Havnevej 19, 2900 Hellerup, Denmark.
- (29) Oxy Low Carbon Ventures, LLC is a commercial partner of LanzaTech.
- (30) Prior to the consummation of the Business Combination, PETRONAS Technology Ventures SDN BHD had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. PETRONAS Technology Ventures SDN BHD has the sole power to vote and dispose of the shares, and no individual or other entity is deemed to hold any beneficial ownership in the shares.
- (31) Primetals Technologies Austria GmbH is a commercial partner of LanzaTech. Etsuro Hirai, Andreas Weinhengst, Alexander Fleischanderl, Michael Kienberger, Miljenko Solje, Jeremy Hamon, and Rainer Oberleitner, each may be deemed to have shared voting and dispositive power with respect to the shares.
- (32) Puig International SA is a wholly-owned subsidiary of the Spanish entity JORBA PERFUMES, S.L., which in turn is a wholly-owned subsidiary of the Spanish entity PUIG, S.L. Voting and dispositive decisions with respect to the shares held by Puig International SA are made by PUIG, S.L. The business address of Puig International SA is Business Park Terre Bonne - (Bâtiment A4), Route de Crassier 17, CH - 1262 Eysins, Switzerland.
- (33) Prior to the consummation of the Business Combination, Qiming Venture Partners II, L.P., Qiming Venture Partners II-C, L.P. and Qiming Managing Directors Fund II, L.P. (collectively, "Qiming Venture Partners") jointly had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. The general partner of Qiming Venture Partners II, L.P. and Qiming Venture Partners II-C, L.P. is Qiming GP II, L.P., a Cayman Islands exempted limited partnership, whose general partner is Qiming Corporate GP II, Ltd., a Cayman Islands exempted company. The general partner of Qiming Managing Directors Fund II, L.P. is Qiming Corporate GP II, Ltd. The voting and investment power of shares held by Qiming Venture Partners is exercised by Qiming Corporate GP II, Ltd., which is beneficially owned by Duane Kuang, Gary Rieschel, Nisa Leung and Robert Headley.
- (34) Prior to the consummation of the Business Combination Qiming Venture Partners jointly had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. The general partner of Qiming Venture Partners II, L.P. and Qiming Venture Partners II-C, L.P. is Qiming GP II, L.P., a Cayman Islands exempted limited partnership, whose general partner is Qiming Corporate GP II, Ltd., a Cayman Islands exempted company. The general partner of Qiming Managing Directors Fund II, L.P. is Qiming Corporate GP II, Ltd. The voting and investment power of shares held by Qiming Venture Partners is exercised by Qiming Corporate GP II, Ltd., which is beneficially owned by Duane Kuang, Gary Rieschel, Nisa Leung and Robert Headley.
- (35) Prior to the consummation of the Business Combination Qiming Venture Partners jointly had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech's board of directors. This appointment right terminated upon the consummation of the Business Combination. The general partner of Qiming Venture Partners II, L.P. and Qiming Venture Partners II-C, L.P. is Qiming GP II, L.P., a Cayman Islands exempted limited partnership, whose general partner is Qiming Corporate GP II, Ltd., a Cayman Islands exempted company. The general partner of Qiming Managing Directors Fund II, L.P. is Qiming Corporate GP II, Ltd. The voting and investment power of shares held by Qiming Venture Partners is exercised by Qiming Corporate GP II, Ltd., which is beneficially owned by Duane Kuang, Gary Rieschel, Nisa Leung and Robert Headley.
- (36) SVII LLC is the manager of LCP Extension Fund, LLC. Any investment decision by SVII LLC requires the approval of two out of three of its managing members. Under the so-called "rule of three," because voting and dispositive decisions are made by two out of the three managing members of SVII LLC, none of the managing members is deemed to be a beneficial owner of securities held.
- (37) Consists of shares of LanzaTech common stock allocated to investors managed by Sandia Investment Management LP ("Sandia"). Sandia Investment Management LLC is the general partner of Sandia. Tim Sichler serves as Founder & CIO of the general partner of Sandia, and in such capacity may be deemed to be the beneficial owner having shared voting power and

- shared investment power over the securities described in this footnote.
- (38) SBCVC Fund III Company Limited is an investment vehicle under SBCVC Fund III L.P. which is an investment fund in a form of a limited partnership incorporated and existing under the laws of the Cayman Island. Chauncey Shey, Peter Hua and Alan Song, members of the investment committee of SBCVC Fund III L.P., have shared voting and investment power with respect to the shares held by SBCVC Fund III Company Limited.
- (39) Consists of (i) 10,959 shares of common stock held by Lumyna Specialist Funds - Event Alternative Fund (“EAF”), and (ii) 38,541 shares of common stock held by PSAM WorldArb Master Fund Ltd (“WAM”). P. Schoenfeld Asset Management LP (“PSAM”), is the investment manager of EAF and WAM. Peter Schoenfeld is the CEO of PSAM. PSAM and Peter Schoenfeld have voting and investment power over the shares held directly by EAF and WAM. Each of PSAM and Peter Schoenfeld disclaim beneficial ownership of the securities reported herein except to the extent of their pecuniary interest therein. The address for P. Schoenfeld Asset Management LP is 1350 Avenue of the Americas, 21st Floor, New York, NY 10019.
- (40) LanzaTech and Sekisui are party to certain collaboration agreements described in the section entitled “*Business Overview — Key Collaboration Agreements*” included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023.
- (41) Consists of shares of LanzaTech common stock allocated to Shaolin Capital Partners Master Fund, Ltd., MAP 214 Segregated Portfolio, a segregated portfolio of LMA SPC, DS Liquid DIV RVA SCM, LLC and Shaolin Capital Partners SP, a segregated portfolio of PC MAP SPC by Shaolin Capital Management LLC. David Puritz, in his position as CIO at Shaolin Capital Management LLC and Michael Jester in his position as Co-founder and Head of Research at Shaolin Capital Management LLC may be deemed to have voting and investment power with respect to the shares. Shaolin Capital Management LLC has sole voting and dispositive power over the shares.
- (42) SHV Energy N.V. is a commercial partner of LanzaTech. The board of directors has the sole power to vote and dispose of the shares. The board of directors is jointly represented by its two members, Mr. Abraham A. Graber and Mr. Paulo F. Rodrigues. No individual or other entity has any specific rights over the shares nor holds any beneficial ownership of the shares.
- (43) Prior to the consummation of the Business Combination, Sinopec Capital Co., Ltd. had the right to appoint and elect, and did appoint and elect, one director to Legacy LanzaTech’s board of directors. This appointment right terminated upon the consummation of the Business Combination. Any action by Sinopec Capital Co., Ltd. with respect to its shares, including voting and dispositive decisions, requires a vote of three out of the five members of its investment team. Under the so-called “rule of three,” because voting and dispositive decisions are made by three out of the five members of the investment team, none of the members is deemed to be a beneficial owner of securities held by Sinopec Capital Co., Ltd. Accordingly, none of the members of the investment team is deemed to have or share beneficial ownership of the shares held by Sinopec Capital Co., Ltd. The business address of Sinopec Capital Co., Ltd. is 22nd Floor, World Financial Center East Tower, 1 East 3rd Ring Middle Road, Chaoyang District, Beijing, China.
- (44) LanzaTech and Suncor are party to certain collaboration and investment agreements described in the section entitled “*Business Overview — Key Collaboration Agreements*” included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023.
- (45) Tenor Capital Management Company, L.P. serves as the investment adviser for Tenor Opportunity Master Fund, Ltd. and therefore may be deemed to share voting and investment power with respect to these shares in such capacity. Tenor Management GP, LLC is the general partner of Tenor Capital Management Company, L.P. and Robin R. Shah is the sole managing member of Tenor Management GP, LLC. As such, Mr. Shah may be deemed to have beneficial ownership over the shares. The address of Tenor Opportunity Master Fund, Ltd. is c/o Tenor Capital Management, 810 7th Avenue, Suite 1905, New York, NY 10019.
- (46) DUMAC, Inc., as the investment manager of The Duke Endowment, may be deemed to beneficially own the shares of common stock of the issuer held by The Duke Endowment. Neal F. Triplett, as the President of DUMAC, Inc., may be deemed to beneficially own the shares of common stock of the issuer held by The Duke Endowment. The address of each of the persons referenced in this footnote is 280 S. Mangum Street, Suite 210, Durham, NC 27701.
- (47) Trafigura US Holdings Inc. is a direct wholly-owned subsidiary of Trafigura US Inc., which in turn is an indirect wholly-owned subsidiary of Trafigura Group Pte. Ltd. The business address of Trafigura US Holdings, Inc. is 1209, Orange Street, Wilmington, Delaware. Trafigura Trading LLC, another direct wholly-owned subsidiary of Trafigura US Inc., is a commercial partner of LanzaTech.
- (48) Consists of shares of LanzaTech common stock allocated to investors managed by UBS O’Connor LLC.
- (49) Consists of (i) 2,990,000 shares of common stock, (ii) 2,010,000 shares of common stock that are issuable upon the exercise of Shortfall Warrants, and (iii) 2,010,000 Shortfall Warrants held directly by Vellar Opportunity Fund SPV LLC - Series 10 (“Vellar”). AMCI, Legacy LanzaTech, ACM and Vellar entered into an Assignment and Novation Agreement, as described in the section entitled “*Description of Securities — Forward Purchase Agreement*.” Cohen & Company Financial Management, LLC (“CCFM”) is the investment manager for Vellar, and Mr. Daniel Cohen is the Chief Investment Officer of CCFM. CCFM is a controlled subsidiary of Dekania Investors, LLC, which in turn is a controlled subsidiary of Cohen & Company LLC, which in turn is a controlled subsidiary of Cohen & Company Inc. Mr. Cohen disclaims any beneficial ownership of the shares held by these entities. The business address of Vellar Opportunity Fund SPV LLC – Series 10 is c/o Mourant Governance Services (Cayman) Limited 94, Solaris Avenue, Camana Bay, PO Box 1348 Grand Cayman KY1-1108, Cayman Islands. The business address for each of Cohen & Company Financial Management, LLC; Dekania Investors, LLC; Cohen & Company LLC; Cohen & Company Inc.; and Mr. Daniel Cohen is 3 Columbus Circle, 24th Floor, New York NY 10019.
- (50) There are no natural persons who have voting and/or investment power over the shares held by Woodside Energy Technologies Pty Ltd.
- (51) Mr. Beem is the former president and a member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (52) Ms. Burson is a former member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (53) Mr. Copes is the former Vice President of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (54) Mr. Holmes is the former Vice President of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (55) Mr. Murphy is the former chief financial officer of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (56) Mr. Patel is the former chief executive officer and a member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination, and former member of the board of directors of LanzaTech.
- (57) Mr. Paterson is a former member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (58) Mr. Pinho is a former member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (59) Dr. Simpson is the former chief scientific officer and a member of the board of directors of Legacy LanzaTech. Consists of 2,164,839 shares of common stock and 1,308,835 shares of common stock underlying stock options.
- (60) Ms. Watz is a former member of the board of directors of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (61) Mr. Woodson is an affiliate of AMCI, predecessor registrant prior to the consummation of the Business Combination.
- (62) Dr. Wyse is a former member of the board of directors of Legacy LanzaTech. Consists of 371,848 shares of common stock underlying stock options.

MATERIAL U.S. FEDERAL INCOME AND ESTATE TAX CONSIDERATIONS

The following discussion describes material United States federal income and estate tax considerations relating to the acquisition, ownership, and disposition of shares, Shortfall Warrants, or Private Placement Warrants by a non-U.S. holder (as defined below) that acquires our shares, Shortfall Warrants, or Private Placement Warrants in this offering and holds them as a capital asset. This discussion is based on the tax laws of the United States, including the Code, Treasury regulations promulgated or proposed thereunder, and administrative and judicial interpretations thereof, all as in effect on the date hereof. These tax laws are subject to change, possibly with retroactive effect, and subject to differing interpretations that could affect the tax consequences described herein. This section does not address the treatment of a non-U.S. holder under the laws of any state, local or foreign taxing jurisdiction.

For purposes of this discussion, a “non-U.S. holder” is a beneficial owner of our shares, Shortfall Warrants, or Private Placement Warrants that, for United States federal income tax purposes, is:

- a non-resident alien individual;
- a foreign corporation;
- an estate the income of which is not subject to United States federal income taxation regardless of its source; or
- a trust that does not have in effect a valid election under the Treasury regulations to be treated as a United States person and either (1) no court within the United States is able to exercise primary supervision over the trust’s administration or (2) no United States person has the authority to control all substantial decisions of that trust.

This discussion does not address all aspects of United States federal income taxation that may be applicable to non-U.S. holders in light of their particular circumstances or status (including, for example, banks and other financial institutions, insurance companies, brokers and dealers in securities or currencies, traders that have elected to mark securities to market, partnerships or other pass-through entities, corporations that accumulate earnings to avoid United States federal income tax, tax-exempt organizations, pension plans, persons that hold our shares as part of a straddle, hedge or other integrated investment, persons subject to alternative minimum tax, certain United States expatriates, and foreign governments or agencies).

If a partnership (including any entity or arrangement treated as a partnership for United States federal income tax purposes) is a non-U.S. holder, the tax treatment of a person treated as a partner in the partnership for United States federal income tax purposes generally will depend on the status of the partner and the activities of the partnership. Partnerships (and other entities or arrangements so treated for United States federal income tax purposes) and their partners should consult their own tax advisors.

This discussion addresses only non-U.S. holders and does not discuss any tax considerations other than United States federal income tax and certain United States federal estate tax considerations. Prospective investors are urged to consult their own tax advisors regarding the United States federal, state, local, and foreign tax consequences of the purchase, ownership, and disposition of our shares, Shortfall Warrants and Private Placement Warrants, including the effect of any applicable tax treaties.

Dividends

As discussed above, we have not paid and do not currently expect to pay dividends. If we do make a distribution of cash or property with respect to our shares, any such distribution generally will constitute a dividend for United States federal income tax purposes except as described below. Subject to the discussion below under “— FATCA Withholding” and “— Information Reporting and Backup Withholding,” and except as described below, any such dividends paid to a non-U.S. holder generally will be subject to withholding tax at a 30% rate or at a lower rate under an applicable income tax treaty between the United States and the non-U.S. holder’s country of residence. In order to receive a reduced treaty withholding tax rate, a non-U.S. holder must furnish to us or our paying agent a properly executed Internal Revenue Service Form W-8BEN or Form W-8BEN-E (or other applicable form) prior to

payment of the dividend, certifying under penalties of perjury that the non-U.S. holder is entitled to a reduction in withholding under an applicable income tax treaty. A non-U.S. holder that holds our shares through a financial institution or other agent will be required to provide appropriate documentation to the financial institution or other agent, which then will be required to provide certification to us or our paying agent either directly or through other intermediaries. A non-U.S. holder that is eligible for a reduced rate of withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing a refund claim with the Internal Revenue Service.

If a dividend is “effectively connected” with the conduct of a trade or business in the United States of the non-U.S. holder (and, if an applicable income tax treaty so provides, attributable to a permanent establishment or fixed base maintained by the non-U.S. holder in the United States), the non-U.S. holder is exempt from the withholding tax described above provided that the holder has furnished to us or our paying agent an Internal Revenue Service Form W-8ECI (or applicable successor form), certifying under penalties of perjury that the dividend is effectively connected with the non-U.S. holder’s conduct of a trade or business in the United States (and, if an applicable income tax treaty so provides, attributable to a permanent establishment or fixed base maintained in the United States). “Effectively connected” dividends will generally be subject to United States federal income tax at the rates that also apply to U.S. persons. A corporate non-U.S. holder may, under certain circumstances, be subject to an additional branch profits tax at a 30% rate (or at a lower rate under an applicable income tax treaty) with respect to its “effectively connected” dividends.

To the extent a distribution with respect to our shares exceeds our current or accumulated earnings and profits, as determined under United States federal income tax principles, the distribution will be treated, first, as a tax-free return of the non-U.S. holder’s investment, up to the holder’s adjusted tax basis in its shares, and, thereafter, as capital gain, which is subject to the tax treatment described below in “— Gain on Sale, Exchange or Other Taxable Disposition.”

Exercise of Shortfall Warrants and Private Placement Warrants

In general, a non-U.S. holder will not recognize gain or loss for U.S. federal income tax purposes upon exercise of a Shortfall Warrant or Private Placement Warrant. In general, a non-U.S. holder will not be able to utilize a loss recognized upon the expiration of such a warrant against the non-U.S. holder’s U.S. federal income tax liability unless the loss is (i) effectively connected with the non-U.S. holder’s conduct of a trade or business within the United States (and, if required by an applicable income tax treaty, is attributable to a permanent establishment in the United States) or (ii) treated as a U.S.-source loss, the non-U.S. holder is present in the United States for 183 days or more in the taxable year of disposition, and certain other conditions are met.

Gain On Sale, Exchange or Other Taxable Disposition

Subject to the discussion below under “— FATCA Withholding” and “— Information Reporting and Backup Withholding,” a non-U.S. holder generally will not be subject to United States federal income tax or withholding tax on gain realized upon a sale, exchange or other taxable disposition of Private Placement Warrants, Shortfall Warrants, or shares (including a redemption, but only if the redemption would be treated as a sale or exchange rather than a distribution for United States federal income tax purposes) unless:

- the gain is “effectively connected” with the conduct of a trade or business of the non-U.S. holder in the United States (and, if required by an applicable income tax treaty, the gain is attributable to a permanent establishment or fixed base maintained in the United States), in which case the non-U.S. holder generally will be subject to United States federal income tax on a net income basis with respect to such gain in the same manner as if such holder were a resident of the United States and, if the non-U.S. holder is a corporation for United States federal income tax purposes, may, under certain circumstances, be subject to an additional “branch profits tax” at a 30% rate (or at a lower rate under an applicable income tax treaty) on its “effectively connected” gains;
- the non-U.S. holder is an individual who is present in the United States for 183 or more days in the taxable year of the disposition and meets certain other conditions, in which case the non-U.S. holder generally will be subject to United States federal income tax at a 30% rate (or at a lower rate under an applicable income

tax treaty) on the gain derived from the sale, which gain may be offset by U.S.-source capital losses for the year; or

- we are or have been a “United States real property holding corporation” or USRPHC (as described below) at any time within the shorter of the five-year period preceding the disposition and the non-U.S. holder’s holding period for our shares, Private Placement Warrants, or Shortfall Warrants (the “relevant period”) and the non-U.S. holder (i) makes a disposition during a calendar year when our shares are no longer regularly traded on an established securities market or (ii) owned (directly, indirectly, and constructively) more than 5% of our shares at any time during the relevant period, in which case such a non-U.S. holder generally will be subject to tax on the gain as if the gain were effectively connected with the conduct of a trade or business in the United States, except that the “branch profits tax” will not apply.

We believe we currently are not, and we do not anticipate becoming, a USRPHC for United States federal income tax purposes. Generally, a corporation is a USRPHC only if the fair market value of its United States real property interests (as defined in the Code) equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests and its other assets used or held for use in a trade or business.

FATCA Withholding

Sections 1471 through 1474 of the Code and the Treasury regulations issued thereunder (commonly referred to as the Foreign Account Tax Compliance Act, or FATCA) impose a 30% withholding tax on dividends paid on our shares to, and (subject to the proposed Treasury Regulations discussed below) the gross proceeds derived from the sale or other disposition of our shares by, a foreign entity if the foreign entity is:

- a “foreign financial institution” (as defined under FATCA) that does not furnish proper documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA withholding or (ii) its compliance (or deemed compliance) with specified due diligence, reporting, withholding and certification obligations under FATCA or (iii) residence in a jurisdiction that has entered into an intergovernmental agreement with the United States relating to FATCA and compliance with the diligence and reporting requirements of the intergovernmental agreement and local implementing rules; or
- a “non-financial foreign entity” (as defined under FATCA) that does not provide sufficient documentation, typically on IRS Form W-8BEN-E, evidencing either (i) an exemption from FATCA or (ii) adequate information regarding substantial United States beneficial owners of such entity (if any).

Withholding under FATCA generally applies to payments of dividends on our shares and to payments of gross proceeds from a sale or other disposition of our shares. Withholding agents may, however, rely on proposed U.S. Treasury Regulations that would no longer require FATCA withholding on payments of gross proceeds. A withholding agent such as a broker, and not LanzaTech, will determine whether or not to implement gross proceeds FATCA withholding.

If a dividend payment is subject to withholding both under FATCA and the withholding tax rules discussed above under “— Dividends,” the withholding under FATCA may be credited against, and therefore reduce, such other withholding tax. Holders of shares should consult their own tax advisors regarding these requirements and whether they may be relevant to their ownership and disposition of the shares.

Under certain circumstances, a non-U.S. holder will be eligible for refunds or credits of withholding taxes imposed under FATCA by filing a United States federal income tax return. Prospective investors should consult their tax advisors regarding the effect of FATCA on their ownership and disposition of our shares.

Information Reporting and Backup Withholding

Except as described below, a non-U.S. holder generally will be exempt from backup withholding and information reporting requirements with respect to dividend payments and the payment of the proceeds from a sale of our shares, Private Placement Warrants, or Shortfall Warrants that is effected at a United States office of a broker,

as long as the payor or broker does not have actual knowledge or reason to know that the holder is a United States person and the holder has furnished to the payor or broker:

- a valid Internal Revenue Service Form W-8BEN or Form W-8BEN-E on which the non-U.S. holder certifies, under penalties of perjury, that it is a non-United States person; or
- other documentation upon which it may rely to treat the payments as made to a non-United States person in accordance with Treasury regulations,

or the non-U.S. holder otherwise establishes an exemption.

However, we must report annually to the Internal Revenue Service and to non-U.S. holders the amount of dividends paid to them and the tax withheld with respect to such dividends, regardless of whether withholding was required. Copies of the information returns reporting such dividends and withholding may also be made available to the tax authorities in the country in which the respective non-U.S. holder resides under the provisions of an applicable income tax treaty.

Payment of the proceeds from the sale of our shares, Private Placement Warrants, or Shortfall Warrants effected at a foreign office of a broker generally will not be subject to information reporting or backup withholding. However, a sale of our shares by a non-U.S. holder that is effected at a foreign office of a broker will be subject to information reporting and backup withholding if:

- the proceeds are transferred to an account maintained by the non-U.S. holder in the United States;
- the payment of proceeds or the confirmation of the sale is mailed to the non-U.S. holder at a United States address; or
- the sale has some other specified connection with the United States as provided in the Treasury regulations,

unless the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above are met or the non-U.S. holder otherwise establishes an exemption.

In addition, a sale of shares, Private Placement Warrants, or Shortfall Warrants will be subject to information reporting if it is effected at a foreign office of a broker that is:

- a United States person;
- a “controlled foreign corporation” for United States federal income tax purposes;
- a foreign person 50% or more of whose gross income is effectively connected with the conduct of a United States trade or business for a specified three-year period; or
- a foreign partnership, if at any time during its tax year (a) one or more of its partners are “U.S. persons”, as defined in U.S. Treasury regulations, who in the aggregate hold more than 50% of the income or capital interest in the partnership, or (b) such foreign partnership is engaged in the conduct of a trade or business in the United States,

unless the broker does not have actual knowledge or reason to know that the holder is a United States person and the documentation requirements described above are met or an exemption is otherwise established. Backup withholding will apply if the sale is subject to information reporting and the broker has actual knowledge that the holder is a United States person.

Backup withholding is not an additional tax. A non-U.S. holder generally may obtain a refund of any amounts withheld under the backup withholding rules that exceed the non-U.S. holder’s income tax liability by timely filing a refund claim with the Internal Revenue Service.

Federal Estate Taxes

The estates of nonresident alien decedents generally are subject to United States federal estate tax on property with a United States situs. Because we are a United States corporation, our shares, Shortfall Warrants, and Private Placement Warrants will be United States situs property and therefore will be included in the taxable estate of a nonresident alien decedent at the time of the decedent's death, unless an applicable estate tax treaty between the United States and the decedent's country of residence provides otherwise. An estate tax credit is available to reduce the net tax liability of a nonresident alien's estate, but the estate tax credit for a nonresident alien is generally much smaller than the applicable credit for computing the estate tax of a United States resident. Nonresident aliens should consult their personal tax advisors regarding the United States federal estate tax consequences of owning our shares, Shortfall Warrants, and Private Placement Warrants .

PLAN OF DISTRIBUTION

We are registering the issuance by us of up to 23,403,989 shares of common stock, which consists of (i) up to 4,774,276 shares of common stock that are issuable upon the exercise of Private Placement Warrants, (ii) up to 7,499,924 shares of common stock that are issuable upon the exercise of Public Warrants, (iii) up to 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE, (iv) up to 300,000 shares of common stock that are issuable upon exercise of the AM Warrant, (v) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, and (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders. We are also registering the resale by the selling stockholders of up to 4,774,276 Private Placement Warrants, up to 4,083,486 Shortfall Warrants, and up to 203,436,682 shares of common stock, which consists of (i) up to 18,500,000 PIPE Shares issued in the PIPE Investment, (ii) up to 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE, (iii) up to 4,774,276 shares of common stock that are issuable upon the exercise of Private Placement Warrants, (iv) up to 300,000 shares of common stock that are issuable upon exercise of the AM Warrant, (v) up to 2,164,839 shares of common stock held by certain selling stockholders, (vi) up to 1,746,303 shares of common stock underlying the Options held by certain selling stockholders, (vii) up to 5,916,514 shares of common stock purchased by certain selling stockholders subject to the Forward Purchase Agreement, (viii) up to 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, and (ix) up to 160,951,264 shares of common stock issued pursuant to the Registration Rights Agreement.

We will bear all costs, expenses and fees in connection with the registration of these securities, including with regard to compliance with state securities or “blue sky” laws. The selling holders will bear all commissions and discounts, if any, attributable to their sale of warrants or shares of common stock (as applicable).

We will not receive any proceeds from the sale of the Private Placement Warrants, the Shortfall Warrants or of the common stock by the selling holders pursuant to this prospectus. The aggregate proceeds to the selling holders will be the purchase price of the common stock or warrants (as applicable) less any discounts and commissions borne by the selling holders.

The Private Placement Warrants, the Shortfall Warrants and shares of common stock beneficially owned by the selling holders covered by this prospectus may be offered and sold from time to time by the selling holders. The term “selling holders” or “selling stockholders” includes donees, pledgees, transferees or other successors in interest selling securities received after the date of this prospectus from a selling holder as a gift, pledge, partnership distribution or other transfer. The selling holders will act independently of us in making decisions with respect to the timing, manner and size of each sale. Such sales may be made on one or more exchanges or in the over-the-counter market or otherwise, at prices and under terms then prevailing or at prices related to the then current market price or in negotiated transactions. The selling holders may sell their shares of common stock, Private Placement Warrants or Shortfall Warrants by one or more of, or a combination of, the following methods:

- purchases by a broker-dealer as principal and resale by such broker-dealer for its own account pursuant to this prospectus;
- ordinary brokerage transactions and transactions in which the broker solicits purchasers;
- block trades in which the broker-dealer so engaged will attempt to sell the shares as agent but may position and resell a portion of the block as principal to facilitate the transaction;
- an over-the-counter distribution in accordance with the rules of Nasdaq;
- through trading plans entered into by a selling holder pursuant to Rule 10b5-1 under the Exchange Act, that are in place at the time of an offering pursuant to this prospectus and any applicable prospectus supplement hereto that provide for periodic sales of their securities on the basis of parameters described in such trading plans;
- to or through underwriters, agents or broker-dealers;

- “at the market” offerings, as defined in Rule 415 under the Securities Act, at negotiated prices, at prices prevailing at the time of sale or at prices related to such prevailing market prices, including sales made directly on a national securities exchange or sales made through a market maker other than on an exchange or other similar offerings through sales agents;
- privately negotiated transactions
- options transactions;
- if the selling stockholder is an entity, an in-kind distribution to its members, partners or stockholders;
- through a combination of any of the above methods of sale; or
- any other method permitted pursuant to applicable law.

In addition, any securities that qualify for sale pursuant to Rule 144 may be sold under Rule 144 rather than pursuant to this prospectus.

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution. In connection with distributions of the common stock, Private Placement Warrants, Shortfall Warrants or otherwise, the selling holders may enter into hedging transactions with broker-dealers or other financial institutions. In connection with such transactions, broker-dealers or other financial institutions may engage in short sales of common stock, Private Placement Warrants or Shortfall Warrants in the course of hedging the positions they assume with selling holders. The selling holders may also sell shares of common stock, Private Placement Warrants or Shortfall Warrants short and redeliver the shares to close out such short positions. The selling holders may also enter into option or other transactions with broker-dealers or other financial institutions which require the delivery to such broker-dealer or other financial institution of securities offered by this prospectus, which securities such broker-dealer or other financial institution may resell pursuant to this prospectus (as supplemented or amended to reflect such transaction). The selling holders may also pledge shares of common stock, Private Placement Warrants or Shortfall Warrants to a broker-dealer or other financial institution, and, upon a default, such broker-dealer or other financial institution may effect sales of the pledged securities pursuant to this prospectus (as supplemented or amended to reflect such transaction).

A selling holder may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If an applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell shares of common stock, Private Placement Warrants or Shortfall Warrants covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by any selling holder or borrowed from any selling holder or others to settle those sales or to close out any related open borrowings of stock, Private Placement Warrants or Shortfall Warrants, and may use securities received from any selling holder in settlement of those derivatives to close out any related open borrowings of stock or warrants. If treated as so under applicable securities laws, the third party in such sale transactions will be an underwriter and will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, any selling holder may otherwise loan or pledge shares of common stock, Private Placement Warrants or Shortfall Warrants to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

In effecting sales, broker-dealers or agents engaged by the selling holders may arrange for other broker-dealers to participate. Broker-dealers or agents may receive commissions, discounts or concessions from the selling holders in amounts to be negotiated immediately prior to the sale.

In offering the shares of common stock, Private Placement Warrants or Shortfall Warrants covered by this prospectus, the selling holders and any broker-dealers who execute sales for them may be deemed to be “underwriters” within the meaning of the Securities Act in connection with such sales. Any profits realized by

selling holders who are “underwriters,” and the compensation of any broker-dealer who executes sales for them, may be deemed to be underwriting discounts and commissions.

In order to comply with the securities laws of certain states, if applicable, the common stock, Private Placement Warrants and Shortfall Warrants must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in certain states the shares of common stock, Private Placement Warrants and Shortfall Warrants may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with.

We have advised the selling holders that the anti-manipulation rules of Regulation M under the Exchange Act may apply to sales of common stock, Private Placement Warrants or Shortfall Warrants in the market and to the activities of the selling holders and their affiliates. In addition, we will make copies of this prospectus available to the selling holders for the purpose of satisfying the prospectus delivery requirements of the Securities Act. The selling holders may indemnify any broker-dealer that participates in transactions involving the sale of the common stock or warrants against certain liabilities, including liabilities arising under the Securities Act.

At the time a particular offer of shares of common stock, Private Placement Warrants or Shortfall Warrants is made, if required, a prospectus supplement will be distributed that will set forth the number of securities being offered and the terms of the offering, including the name of any underwriter, dealer or agent, the purchase price paid by any underwriter, any discount, commission and other item constituting compensation, any discount, commission or concession allowed or reallocated or paid to any dealer, and the proposed selling price to the public.

We have agreed to indemnify certain of the selling holders against certain liabilities, including liabilities under the Securities Act and state securities laws, relating to the registration of the shares of common stock, Private Placement Warrants and Shortfall Warrants offered by this prospectus.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement, the validity of the securities will be passed upon for us by Covington & Burling LLP, Washington, D.C. If legal matters are passed upon by counsel for the underwriters, dealers or agents, if any, such counsel will be named in the prospectus supplement relating to such offering.

EXPERTS

The financial statements of LanzaTech Global, Inc. as of December 31, 2023 and 2022, and for each of the two years in the period ended December 31, 2023, incorporated by reference in this prospectus, and the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports which express an unqualified opinion on the financial statements and an adverse opinion on the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023. Such financial statements are incorporated by reference in reliance upon the reports of such firm given their authority as experts in accounting and auditing.

The information in this prospectus is not complete and may be changed. These securities may not be sold until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell nor is it soliciting an offer to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to completion, dated October 11, 2024

PROSPECTUS

LanzaTech

Up to \$100,000,000 Common Stock

We have entered into an At Market Issuance Sale Agreement, dated May 9, 2024 (the “Sales Agreement”) and a Terms Agreement (the “Terms Agreement”), with B. Riley Securities, Inc. (“B. Riley Securities”), relating to the sale of shares of our common stock, par value \$0.0001 per share, offered by this prospectus. We may offer and sell shares of our common stock having an aggregate offering price of up to \$100,000,000 from time to time through B. Riley Securities, acting as our sales agent or principal.

Our common stock and our warrants are listed on the Nasdaq Capital Market (“Nasdaq”) under the symbol “LNZA” and “LNZAW”, respectively. On October 4, 2024, the last reported sales price of our common stock was \$2.04 per share.

Sales of our common stock, if any, under this prospectus supplement may be made by any method that is deemed to be an “at the market offering” as defined in Rule 415(a)(4) promulgated under the Securities Act of 1933, as amended (the “Securities Act”). B. Riley Securities will act as our sales agent in connection with agency transactions on a commercially reasonable efforts basis consistent with its normal trading and sales practices. In addition, B. Riley Securities will act as principal in connection with any principal transactions. There is no arrangement for funds to be received in any escrow, trust or similar arrangement.

B. Riley Securities will be entitled to a commission in an amount equal to (i) 3.0% of the gross proceeds per share sold under the Sales Agreement and (ii) equal to 5.0% of the purchase price per share sold in principal transactions, under the Terms Agreement. See “*Plan of Distribution*” for additional information regarding compensation to be paid to B. Riley Securities. In connection with the sale of our common stock on our behalf, B. Riley Securities will be deemed to be an “underwriter” within the meaning of the Securities Act, and the compensation of B. Riley Securities will be deemed to be underwriting commissions or discounts. We have also agreed to provide indemnification and contribution to B. Riley Securities against certain liabilities, including liabilities under the Securities Act or the Securities Exchange Act of 1934, as amended (the “Exchange Act”).

We are incorporated in Delaware and our headquarters are in Skokie, Illinois. We are not a company that was formed under the laws of the People’s Republic of China. However, we have business operations in China, several strategic investors located in China, including Sinopec Capital Co., Ltd. (“Sinopec”), and a core team of technical, business and administrative professionals at our office in Shanghai, which support the ongoing operations and further growth of the business in China. We also hold a minority ownership stake in Beijing Shougang LanzaTech Technology Co., Ltd. (the “Shougang Joint Venture”). 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. For more information on the Shougang Joint Venture, see the section entitled “*Business Overview — Key Collaboration Agreements — Shougang Joint Venture*” included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

We have determined the Shougang Joint Venture to be a variable interest entity (“VIE”) for which we are not the primary beneficiary. This VIE structure was implemented 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. We had previously determined that we were able to exercise significant influence, but no control, over the Shougang Joint Venture through our equity holdings in the Shougang Joint Venture, our representation on the VIE’s board of directors and participation in the policy-making process. Although we have the right to appoint and elect, and currently have appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between us, the Shougang Joint Venture and Sinopec do not provide us with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore we do not consolidate the Shougang Joint Venture in our financial statements. On September 30, 2022, we determined that we no longer had significant influence over the operating and financial policies of the Shougang Joint Venture due to the significant decrease in the Shougang Joint Venture’s technological dependence on us.

Although we are incorporated and headquartered in the United States, we may still be subject to certain PRC laws due to our business operations in China. We face risks and uncertainties associated with complex and evolving PRC laws and regulations and as to whether and how recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to us or our operations. Any application of these statements or regulatory actions to us or our operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in our operations or in the value of the shares of our common stock. For more information, see the risks and uncertainties described under the caption “*Risk Factors*” beginning on page 13 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to our license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., our wholly owned subsidiary. As of the date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. We have not in the past and do not intend in the future to distribute to our stockholders any amounts that we receive from the Shougang Joint Venture. For more information, see our audited financial statements incorporated by reference in this prospectus.

Our auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the Public Company Accounting Oversight Board (the “PCAOB”) on December 16, 2021 regarding the PCAOB’s inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to us.

Investing in our securities involves a high degree of risk. Before investing in our securities, you should carefully consider the risks and uncertainties described under the caption “*Risk Factors*” beginning on page 13 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the adequacy or accuracy of this prospectus. Any representation to the contrary is a criminal offense.

B. Riley Securities

The date of this prospectus is _____, 2024.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the SEC using the “shelf” registration process under the Securities Act. Under this shelf registration process, we may offer and sell shares of our common stock having an aggregate offering price of up to \$100,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering.

Before buying any of the common stock that we are offering, we urge you to carefully read this prospectus and the information incorporated by reference as described under the heading “*Where You Can Find More Information.*” These documents contain important information that you should consider when making your investment decision.

This prospectus describes the terms of this offering of common stock and also adds to and updates information contained in the documents incorporated by reference into this prospectus. To the extent there is a conflict between the information contained in this prospectus, on the one hand, and the information contained in any document incorporated by reference into this prospectus that was filed with the SEC, before the date of this prospectus, on the other hand, you should rely on the information in this prospectus. If any statement in one of these documents is inconsistent with a statement in another document having a later date (for example, a document incorporated by reference into this prospectus) the statement in the document having the later date modifies or supersedes the earlier statement. The information contained in this prospectus or any free writing prospectus, or incorporated by reference herein or therein, is accurate only as of the respective dates thereof, regardless of the time of delivery of this prospectus or of any sale of our shares of common stock. Our business, financial condition, results of operations and prospects may have changed since those dates.

Unless the context indicates otherwise, references in this prospectus to the “Company,” “LanzaTech,” “we,” “us,” “our” and similar terms refer to LanzaTech Global, Inc. (formerly known as AMCI Acquisition Corp. II) and its consolidated subsidiaries (including LanzaTech NZ, Inc.). References to “PRC” or “China” refer to the People’s Republic of China, which, solely for the purpose of this prospectus, exclude Taiwan and the special administrative regions of Hong Kong and Macau. We have no operations in Taiwan, Hong Kong, or Macau; however, the legal and operational risks associated with operating in China that are described in this prospectus also apply to any operations in Hong Kong and Macau.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreements, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly, such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

The registration statement of which this prospectus forms a part, including the exhibits to the registration statement, contains additional information about us and the securities offered under this prospectus. The registration statement can be obtained from the SEC’s website, www.sec.gov. Copies of information filed by us with the SEC are also available on our website at <https://lanzatech.com>. The reference to our website is not intended to be an active link and the information on, or that can be accessed through, our website is not, and you must not consider the information to be, a part of this prospectus or any other filings we make with the SEC.

Neither we nor B. Riley Securities have authorized anyone to provide you with information that is different from or in addition to the information contained in this prospectus or any free writing prospectus. Accordingly, neither we nor B. Riley Securities takes any responsibility for, or can provide any assurance as to the reliability of, any information that others may provide. You should not assume that the information in this prospectus or any free writing prospectus that we have prepared is accurate as of any date other than the date of those documents, and that any information in documents that we have incorporated by reference is accurate only as of the date of such document, regardless of the time of delivery of this prospectus or any sale of a security. Our business, financial condition, results of operations and prospects may have changed since those dates.

The distribution of this prospectus and any applicable prospectus supplement and the offering of the securities in certain jurisdictions may be restricted by law. Persons who obtain this prospectus and any applicable prospectus supplement should inform themselves about, and observe, any such restrictions. This prospectus does not constitute, and may not be used in connection with, an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not permitted or in which the person making such offer or solicitation is not qualified to do so or to any person to whom it is unlawful to make such offer or solicitation.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

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

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

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

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

These forward-looking statements are only predictions based on our current expectations and projections about future events and are subject to a number of risks, uncertainties and assumptions, including those described in “Risk Factors” and elsewhere in this prospectus. Moreover, we operate in a competitive industry, and new risks emerge from time to time. It is not possible for the management of LanzaTech to predict all risks, nor can we assess the

impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the forward-looking events and circumstances discussed in this prospectus may not occur, and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements in this prospectus.

The forward-looking statements included in this prospectus 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 does not undertake any obligation to update publicly any forward-looking statements for any reason after the date of this prospectus to conform these statements to actual results or to changes in expectations, except as required by law.

You should read this prospectus, and the documents that have been filed as exhibits to the registration statement of which this prospectus forms a part, and any accompanying prospectus supplement 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.

MARKET, INDUSTRY AND OTHER DATA

Certain information contained in this document relates to or is based on studies, publications, surveys and other data obtained from third-party sources and LanzaTech's own internal estimates and research. While we believe these third-party sources to be reliable as of the date of this prospectus, we have not independently verified the market and industry data contained in this prospectus or the underlying assumptions relied on therein. Finally, while we believe our own internal research is reliable, such research has not been verified by any independent source.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the securities being offered by this prospectus. This prospectus, which constitutes part of the registration statement, does not contain all of the information in the registration statement and its exhibits. For further information with respect to us and our securities offered by this prospectus, we refer you to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract or any other document referred to are not necessarily complete, and in each instance, we refer you to the copy of the contract or other document filed as an exhibit to the registration statement. Each of these statements is qualified in all respects by this reference. You can read our SEC filings, including the registration statement, over the internet at the SEC's website at www.sec.gov.

We are subject to the information reporting requirements of the Exchange Act, and we file reports, proxy statements and other information with the SEC. These reports, proxy statements and other information will be available for review at the SEC's website at www.sec.gov. We also maintain a website at www.lanzatech.com, at which you may access these materials free of charge as soon as reasonably practicable after they are electronically filed with, or furnished to, the SEC. LanzaTech's website and the information contained on, or that can be accessed through, such website are not deemed to be incorporated by reference in, and are not considered part of, this prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" into this prospectus the information in documents we file with the SEC, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus and should be read with the same care. When we update the information contained in documents that have been incorporated by reference by making future filings with the SEC, the information incorporated by reference into this prospectus is considered to be automatically updated and superseded. In other words, in all cases, if you are considering whether to rely on information contained in this prospectus or information incorporated by reference into this prospectus, you should rely on the information contained in the document that was filed later. We incorporate by reference (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein) the documents listed below (File No. 001-40282 unless otherwise stated), which are considered to be a part of this prospectus:

- our Annual Report on [Form 10-K](#) for the year ended December 31, 2023, filed with the SEC on February 29, 2024 (including the portions of our Definitive Proxy Statement on [Schedule 14A](#), filed with the SEC on April 29, 2024, incorporated by reference therein);
- our Quarterly Report on [Form 10-Q](#) for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024;
- our Quarterly Report on [Form 10-Q](#) for the quarter ended June 30, 2024, filed with the SEC on August 8, 2024;
- our Current Reports on Form 8-K filed with the SEC on [February 28, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [March 25, 2024](#), [April 29, 2024](#), [May 9, 2024](#) (excluding Item 2.02 and Exhibits 99.1 and 99.2), [June 20, 2024](#), [July 1, 2024](#), [July 26, 2024](#), and [August 8, 2024](#) (second filed), [October 1, 2024](#), [October 8, 2024](#) and [October 10, 2024](#) (excluding Item 7.01); and

- the description of our common stock contained in [Exhibit 4.1](#) of our Quarterly Report on Form 10-Q for the quarter ended March 31, 2024, filed with the SEC on May 9, 2024.

All reports and other documents we subsequently file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until our offering is completed, including all such reports and other documents filed with the SEC after the date of the initial filing of the registration statement of which this prospectus forms a part and prior to the effectiveness of such registration statement, will also be incorporated by reference into this prospectus and deemed to be part hereof (other than any information furnished to, rather than filed with, the SEC, unless expressly stated otherwise therein). The information contained in any such filing will be deemed to be a part of this prospectus commencing on the date on which the document is filed.

Any documents incorporated by reference into this prospectus are available without charge to you, upon written request by contacting our Investor Relations department at Investor Relations, LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077.

THE COMPANY

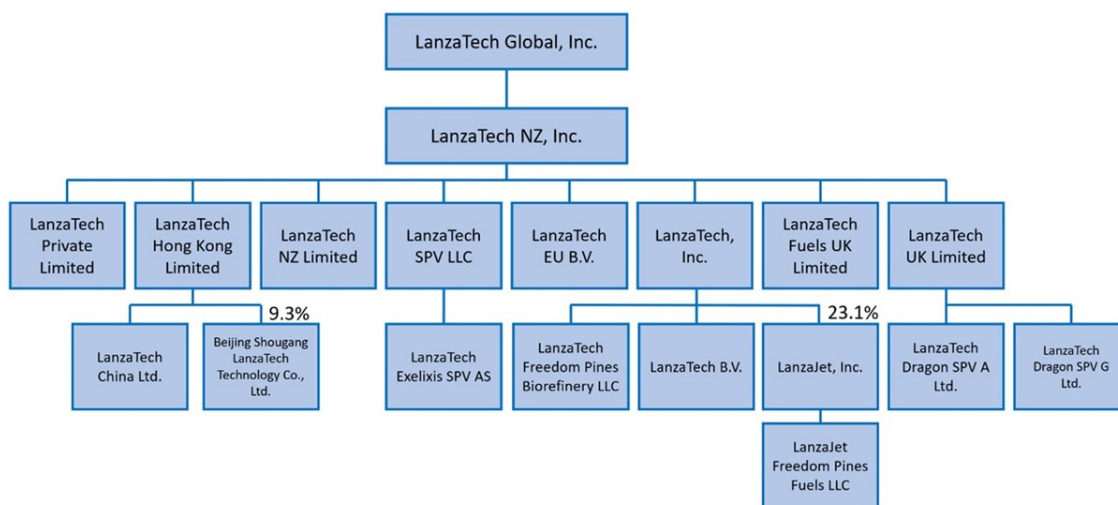
LanzaTech is a nature-based carbon refining company that transforms waste carbon into the chemical building blocks for consumer goods such as sustainable fuels, fabrics, and packaging that people use in their daily lives. Using LanzaTech's process technology, LanzaTech's partners started up the world's first commercial carbon refining plant in 2018 in China. Since then, LanzaTech's partners in China have started up an additional three commercial plants operating in China, one in April 2021, another in September 2022, and the last one in June 2023. Additionally, LanzaTech's partners have started up a commercial scale plant in India in September 2023 and in Belgium in November 2023. LanzaTech has numerous projects under development and in the pipeline globally. LanzaTech's technology platform is designed to use a variety of waste feedstocks, from waste industrial gases to biomass residues and municipal solid waste. LanzaTech's technology platform is designed to capitalize on the demand for sustainable fuels and chemicals, which can be used in multiple sectors such as aviation, automotive, textiles, home goods, consumer goods and others, to address the growing preference among major companies for environmentally conscious products and manufacturing processes.

LanzaTech is incorporated in Delaware and its headquarters are in Skokie, Illinois. LanzaTech is not a company that was formed under the laws of the PRC. However, LanzaTech has 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. LanzaTech also holds a minority ownership stake in the Shougang Joint Venture. LanzaTech licenses its 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 three commercial scale facilities using LanzaTech's process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products. For more information on the Shougang Joint Venture, see the section entitled "*Business Overview — Key Collaboration Agreements — Shougang Joint Venture*" included in Item 1 of our Annual Report on Form 10-K for the year ended December 31, 2023, and the corresponding sections of any prospectus supplement.

LanzaTech has determined the Shougang Joint Venture to be a VIE for which LanzaTech is not the primary beneficiary. LanzaTech holds its equity interest in the Shougang Joint Venture through its subsidiary, LanzaTech Hong Kong Limited, a limited liability company organized under the laws of Hong Kong. LanzaTech Hong Kong Limited is not a wholly foreign-owned enterprise ("WFOE") organized under the laws of the PRC. This VIE structure was implemented to effectuate the intellectual property licensing arrangement between LanzaTech 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.

LanzaTech also has a subsidiary, LanzaTech China Limited, which is a WFOE organized under the laws of the PRC. This subsidiary employs the professionals that work in LanzaTech's office in Shanghai. LanzaTech China Limited does not hold an equity interest in the Shougang Joint Venture, or in any other VIE in China.

The following chart illustrates the organizational structure of LanzaTech and its subsidiaries as of the date of this prospectus:



LanzaTech has entered into a license agreement with the Shougang Joint Venture and a letter agreement with the Shougang Joint Venture and Sinopec. Although LanzaTech has the right to appoint and elect, and currently has appointed and elected, one director to the Shougang Joint Venture’s board of directors, the agreements between LanzaTech, the Shougang Joint Venture and Sinopec do not provide LanzaTech with the power to direct the activities that are most significant to the economic performance of the Shougang Joint Venture. Therefore, LanzaTech does not consolidate the Shougang Joint Venture in its financial statements. LanzaTech may incur substantial costs to enforce the terms of the agreements. LanzaTech may also face challenges enforcing its contractual arrangements with the Shougang Joint Venture due to legal uncertainties and jurisdictional limits.

Although LanzaTech is incorporated and headquartered in the United States, LanzaTech may still be subject to certain PRC laws due to its business operations in China. LanzaTech faces risks and uncertainties associated with the complex and evolving PRC laws and regulations and as to whether and how the recent PRC government statements and regulatory developments, such as those relating to cross-border data security, anti-monopoly concerns and VIEs, would apply to LanzaTech and its operations. Any application of these statements or regulatory actions to LanzaTech and its operations in the future, including a limitation on or disallowance of the VIE structure by Chinese regulatory authorities, could result in a material change in LanzaTech’s operations and could result in a material change in the value of the shares of the common stock.

If (i) LanzaTech does not receive or maintain any permission or approval required of it, (ii) LanzaTech inadvertently concluded that certain permissions or approvals have been acquired or are not required, or (iii) applicable laws, regulations, or interpretations thereof change and LanzaTech becomes subject to the requirement of additional permissions or approvals in the future, LanzaTech may have to expend significant time and costs to procure them. If LanzaTech is unable to do so, on commercially reasonable terms, in a timely manner or otherwise, LanzaTech may become subject to sanctions imposed by the PRC regulatory authorities, which could include fines and penalties, proceedings against LanzaTech, and other forms of sanctions, and LanzaTech’s business, reputation, financial condition, and results of operations may be materially and adversely affected. For more information, see the risks and uncertainties described under the caption “[Risk Factors](#)” beginning on page 13 of this prospectus and any similar section contained in the applicable prospectus supplement and in any free writing prospectus we have authorized for use in connection with a specific offering, and under similar headings in the documents incorporated by reference into this prospectus.

Pursuant to LanzaTech’s license agreement with the Shougang Joint Venture, the Shougang Joint Venture transfers required payments by wire transfer to LanzaTech, Inc., a wholly owned subsidiary of LanzaTech. As of the

date of this prospectus, transfers of cash or other types of assets have been made between the Shougang Joint Venture and LanzaTech and its subsidiaries. The payments made between the Shougang Joint Venture and LanzaTech, Inc. have been in the ordinary course of business and have consisted of payments from LanzaTech, Inc. to the Shougang Joint Venture for the sale of ethanol and payments from the Shougang Joint Venture to LanzaTech, Inc. for sales of microbes, media, consumables and equipment. Payments from LanzaTech, Inc. to the Shougang Joint Venture were approximately \$1.9 million and \$1.1 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$1.4 million during the six months ended June 30, 2024. No payments were made from LanzaTech, Inc. to the Shougang Joint Venture in the fiscal year ended December 31, 2021. Payments from the Shougang Joint Venture to LanzaTech, Inc. were approximately \$0.6 million and \$0.3 million in the fiscal years ended December 31, 2023 and 2022, respectively, and \$0.3 million during the six months ended June 30, 2024. We did not receive any payments from the Shougang Joint Venture in the fiscal year ended December 31, 2021. LanzaTech has not in the past and does not intend in the future to distribute to its stockholders any amounts that it receives from the Shougang Joint Venture. For more information, see the audited financial statements of LanzaTech incorporated by reference in this prospectus.

There are no restrictions or limitations on

- foreign exchange;
- LanzaTech's ability to transfer cash between entities, across borders, or to U.S. investors;
- LanzaTech's ability to distribute earnings from the company, including its subsidiaries, to the holding company or U.S. investors; or
- LanzaTech's ability to settle amounts owed under agreements with the Shougang Joint Venture.

LanzaTech's auditor, Deloitte & Touche LLP, is not headquartered in mainland China or Hong Kong and therefore is not subject to the determinations announced by the PCAOB on December 16, 2021 regarding the PCAOB's inability to inspect or investigate registered public accounting firms headquartered in mainland China or Hong Kong. The Holding Foreign Companies Accountable Act and related regulations are not applicable to LanzaTech.

Additional information about us and our subsidiaries is included in documents incorporated by reference in this prospectus. See "*Where You Can Find More Information*" and "*Incorporation by Reference*."

Business Combination

On February 8, 2023 (the "Closing Date"), LanzaTech NZ, Inc. ("Legacy LanzaTech") and AMCI Acquisition Corp. II ("AMCI") 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.

Corporate Information

We were incorporated in Delaware on January 28, 2021, under the name AMCI Acquisition Corp. II, 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, AMCI and Legacy LanzaTech consummated the transactions contemplated by the Merger Agreement. On the Closing Date, AMCI changed its name to LanzaTech Global, Inc.

Our common stock is traded on Nasdaq under the symbol "LNZA." The mailing address of our principal executive office is 8045 Lamont Avenue, Suite 400, Skokie, Illinois 60077, and our telephone number is (847) 324-2400. Our website address is <https://lanzatech.com>. The information contained in, or that can be accessed through, our website is not part of this prospectus. We make available free of charge on our website our annual,

quarterly and current reports, including amendments to such reports, as soon as reasonably practicable after we electronically file such material with, or furnish such material to, the SEC.

THE OFFERING

Common stock to be offered by us	Shares of our common stock having an aggregate offering price of up to \$100,000,000.
Common stock to be outstanding after this offering	Up to 246,784,676 (assuming the issuance of up to 49,019,608 shares of our common stock based on an assumed sales price of \$2.04 per share, which is the closing price of our common stock on Nasdaq on October 4, 2024). The actual number of shares issued will vary depending on the sales price under this offering.
Plan of Distribution	“At-the-market offering” that may be made from time to time through or to B. Riley Securities, as sales agent or principal. See “ <i>Plan of Distribution</i> ” on page 22 of this prospectus.
Use of Proceeds	We intend to use the net proceeds from this offering for general corporate purposes. See “ <i>Use of Proceeds</i> ” on page 15 of this prospectus.
Risk Factors	Investing in our common stock involves a high degree of risk. See “ <i>Risk Factors</i> ” beginning on page 13 of this prospectus and other information included in this prospectus and the documents incorporated by reference in this prospectus for a discussion of factors you should carefully consider before deciding to invest in shares of our common stock.
Nasdaq Ticker Symbol	The common stock and Public Warrants are listed on Nasdaq under “LNZA” and “LNZAW”, respectively.

The number of shares of common stock that will be outstanding after this offering is based on 197,765,067 shares of common stock outstanding as of June 30, 2024, and excludes the following:

- 4,774,276 shares of common stock that are issuable upon the exercise of private placement warrants (the “Private Placement Warrants”) originally issued in a private placement to AMCI Sponsor II LLC (the “Sponsor”) in connection with the initial public offering (“IPO”) of AMCI and upon the conversion of certain working capital loans of the Sponsor, at a price of \$1.00 per warrant;
- 7,499,924 shares of common stock that are issuable upon the exercise of public warrants (the “Public Warrants” and, together with the Private Placement Warrants, the “Warrants”) originally issued in connection with the AMCI IPO as units of AMCI at a price of \$10.00 per unit, with each unit consisting of one share of AMCI’s Class A common stock and one-half of one warrant;
- 5,000,000 shares of common stock that are issuable upon the conversion of that certain Simple Agreement for Future Equity between BGTF LT Aggregator LP (“Brookfield”) and LanzaTech NZ, Inc., dated October 3, 2022 (the “Brookfield SAFE”) at the equivalent to a price of \$10.00 per share;
- 300,000 shares of common stock that are issuable under a warrant held by ArcelorMittal, dated December 8, 2021 (the “AM Warrant”) at the equivalent to a price of \$10.00 per share;
- 4,083,486 shares of common stock issuable upon the exercise of the warrants issued to certain selling stockholders pursuant to the Forward Purchase Agreement (the “Shortfall Warrants”);
- 19,072,207 shares of common stock issuable upon the exercise of options outstanding as of June 30, 2024, at a weighted average exercise price of \$2.13 per share of Common Stock (the “Options”)
- 4,139,726 shares of common stock issuable upon the vesting of restricted stock units outstanding as of June 30, 2024 (the “RSUs”)
- 3,746,205 shares of common stock issuable upon the vesting of performance share units outstanding as of June 30, 2024 (the “PSUs” and together with the Warrants, the AM Warrant, the Brookfield SAFE, the Shortfall Warrants, the Options and the RSUs, the “Convertible Securities”);

- 96,153,847 shares of common stock reserved for issuance upon conversion of outstanding convertible notes (the “Convertible Notes”) we issued in a private placement pursuant to a Convertible Note Purchase Agreement, dated August 5, 2024, between us and an accredited investor; and
- 13,532,919 shares of common stock reserved for future issuance under our long-term incentive plan.

In addition, unless we specifically state otherwise, all information in this prospectus assumes no exercise of outstanding options or warrants subsequent to June 30, 2024.

RISK FACTORS

An investment in our common stock involves a high degree of risk. Our business, financial condition and results of operations could be materially and adversely affected by any of these risks. If any of these risks occur, the value of our common stock may decline and you may lose all or part of your investment. Before investing in our common stock, you should consider carefully the risk factors set forth in this prospectus and contained in any free writing prospectus with respect to this offering filed by us with the SEC, along with the risk factors described in “Item 1A. Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2023, as updated by our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2024 and June 30, 2024 and other filings we have made and will make with the SEC incorporated by reference into this prospectus.

Risks Related to This Offering

Management will have broad discretion over the use of the proceeds from this offering, and may not use the proceeds effectively.

Because we have not designated the amount of net proceeds from this offering to be used for any particular purpose, our management will have broad discretion as to the application of the net proceeds from this offering and could use them for purposes other than those contemplated at the time of the offering. Our management may use the net proceeds for corporate purposes that may not improve our financial condition or market value. Pending use, we may invest any net proceeds from this offering in a manner that does not produce income or loses value. Please see the section entitled “Use of Proceeds” on page 15 of this prospectus for further information.

You may experience immediate dilution in the net tangible book value per share of the common stock you purchase.

The shares sold in this offering will be sold from time to time at various prices. The price per share of our common stock being offered may, at the time of sale, be higher than the net tangible book value per share of our common stock outstanding prior to this offering. After giving effect to the assumed sale of shares of our common stock in the aggregate amount of \$100,000,000 at an assumed public offering price of \$2.04 per share, the closing price of our common stock on Nasdaq on October 4, 2024, and after deducting commissions and estimated offering expenses, our as adjusted net tangible book value as of June 30, 2024 would have been \$163.6 million, or \$0.66 per share. This would represent an immediate increase in net tangible book value of \$0.32 per share to our existing stockholders and an immediate decrease in as adjusted net tangible book value of \$1.38 per share to purchasers of our common stock in this offering. Please see the section entitled “Dilution” on page 20 of this prospectus. Notwithstanding this illustration, because the price per share of our common stock being offered may, at the time of sale, be higher than the net tangible book value per share of our common stock outstanding prior to this offering, there is still a risk that you may experience immediate and substantial dilution.

Issuances of shares of common stock or securities convertible into or exercisable for shares of common stock following this offering, as well as the exercise of options, will dilute your ownership interests and may adversely affect the future market price of our common stock.

We may require additional capital to meet our operating requirements. We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements, which may cause your ownership interest to be diluted. In addition, as of June 30, 2024, there were (i) 4,774,276 shares of common stock that are issuable upon the exercise of the Private Placement Warrants, (ii) 7,499,924 shares of common stock that are issuable upon the exercise of the Public Warrants, (iii) 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE, (iv) 300,000 shares of common stock that are issuable under the AM Warrant, (v) 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants, (vi) 19,072,207 shares of common stock issuable upon the exercise of options outstanding. In addition, any outstanding Convertible Notes may be converted into shares of our common stock. If these securities are exercised or converted, as applicable, you may incur dilution. Moreover, to the extent that we issue additional options or warrants to purchase, or other securities convertible into or exchangeable for, shares of our common stock in the future and those options, warrants or other securities are exercised, converted or exchanged, stockholders may experience dilution.

A substantial number of shares may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of a substantial number of shares of our common stock in the public market following this offering could cause the market price of our common stock to decline. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act, unless these shares are owned or purchased by “affiliates” as that term is defined in Rule 144 under the Securities Act. In addition, we have also registered the shares of common stock that we may issue under our equity incentive plans. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions under securities laws.

It is not possible to predict the actual number of shares we will sell under the Sales Agreement, or the gross proceeds resulting from those sales.

Subject to certain limitations in the Sales Agreement and compliance with applicable laws, we have the discretion to deliver a placement notice to B. Riley Securities at any time throughout the term of the Sales Agreement. The number of shares that are sold through B. Riley Securities after delivering a placement notice will fluctuate based on a number of factors, including the market price of our common stock during the term of the Sales Agreement, the limits we set with B. Riley Securities in any applicable placement notice, and the demand for our common stock during the term of the Sales Agreement. Additionally, our board of directors could change the minimum sales price that we are authorized to sell shares under the Sales Agreement. Because the price per share of each share sold will fluctuate during the term of the Sales Agreement, it is not currently possible to predict the number of shares that will be sold or the gross proceeds to be raised in connection with the sales of shares of common stock offered under this prospectus and failure to raise enough working capital to fund our business could have a material adverse effect on our business, operating results, financial condition, and prospects.

We have never paid dividends on our capital stock, and we do not anticipate paying dividends in the foreseeable future.

We have never paid dividends on any of our capital stock and currently intend to retain any future earnings to fund the growth of our business. Any determination to pay dividends in the future will be at the discretion of our board of directors, and will depend on our financial condition, operating results, capital requirements, general business conditions and other factors that our board of directors may deem relevant. As a result, capital appreciation, if any, of our common stock will be the sole source of gain for the foreseeable future.

USE OF PROCEEDS

We may issue and sell shares of our common stock having aggregate sales proceeds of up to \$100,000,000 from time to time. Because there is no minimum offering amount required in this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. There can be no assurance that we will sell any shares under or fully utilize the Sales Agreement with B. Riley Securities as a source of financing.

We currently intend to use the net proceeds from the sale of the securities offered hereby for general corporate purposes. Pending these uses, we expect to invest the net proceeds in short-term U.S. treasury money market mutual funds.

The amounts and timing of our actual expenditures will depend on numerous factors, including our development efforts and other factors described under “Risk Factors” in this prospectus and the documents incorporated by reference herein, as well as the amount of cash used in our operations. We may find it necessary or advisable to use the net proceeds for other purposes, and we will have broad discretion in the application of the net proceeds.

DESCRIPTION OF COMMON STOCK

We may issue, separately or together with, or upon conversion, exercise or exchange of other securities, shares of our common stock as set forth in the applicable prospectus supplement. The following section describes the material features and rights of our common stock, \$0.0001 par value per share, and does not purport to be complete. It is subject to, and qualified in its entirety by reference to, our second amended and restated certificate of incorporation, as amended (the “Charter”) and our Bylaws (the “Bylaws”) and applicable provisions of the Delaware General Corporation Law (“DGCL”). Each of our Charter and Bylaws is incorporated by reference as an exhibit to the registration statement of which this prospectus forms a part.

General

The Charter authorizes the issuance of 620,000,000 shares, consisting of 600,000,000 shares of common stock, \$0.0001 par value per share, and 20,000,000 shares of preferred stock, \$0.0001 par value per share. As of October 4, 2024, there were 197,782,055 shares of our common stock outstanding. No shares of preferred stock are currently outstanding.

Common Stock

The Charter provides the following with respect to the rights, powers, preferences and privileges of the common stock.

Voting Power

Except as otherwise required by law or as otherwise provided in any certificate of designation for any series of preferred stock, the holders of shares of common stock possess all voting power for the election of LanzaTech’s directors and all other matters requiring stockholder action. Holders of shares of common stock are entitled to one vote for each share held on all matters to be voted on by stockholders.

Dividends

Holders of shares of common stock will be entitled to receive such dividends, if any, as may be declared from time to time by the Board in its discretion out of funds legally available therefor. We do not intend to pay cash dividends on the common stock for the foreseeable future. Any payment of cash dividends in the future will be dependent upon LanzaTech’s revenues and earnings, if any, capital requirements and general financial conditions. In no event will any stock dividends or stock splits or combinations of stock be declared or made on shares of common stock unless the shares of common stock at the time outstanding are treated equally and identically.

Liquidation, Dissolution and Winding Up

In the event of LanzaTech’s voluntary or involuntary liquidation, dissolution, distribution of assets or winding-up, the holders of shares of common stock will be entitled to receive an equal amount per share of all of LanzaTech’s assets of whatever kind available for distribution to stockholders, after the rights of the holders of the preferred stock have been satisfied.

Preemptive or Other Rights

The LanzaTech stockholders have no preemptive or other subscription rights. No sinking fund provisions are applicable to the common stock.

Registration Rights

AMCI, certain of the Legacy LanzaTech stockholders and certain AMCI stockholders entered into a registration rights agreement, pursuant to which, among other things, such stockholders were granted certain registration rights with respect to certain shares of securities held by them.

Listing of Common Stock

Our common stock is listed on Nasdaq under the symbol “LNZA”.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Continental Stock Transfer & Trust Company.

Certain Anti-Takeover Provisions of Delaware Law and our Charter and Bylaws

Charter and Bylaws

Among other things, the Charter and Bylaws:

- permit the Board to issue up to 20,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate, including the right to approve an acquisition or other change of control;
- provide that the number of directors of LanzaTech may be changed only by resolution of the Board;
- provide that, subject to the rights of any series of preferred stock to elect directors, directors may be removed only with cause by the holders of at least 66⅔% of all of LanzaTech’s then-outstanding shares of the capital stock entitled to vote generally at an election of directors;
- provide that all vacancies, including newly created directorships, may, except as otherwise required by law, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;
- provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide advance notice in writing, and also specify requirements as to the form and content of a stockholder’s notice;
- provide that special meetings of LanzaTech’s stockholders may be called by the Board pursuant to a resolution adopted by a majority of the Board;
- provide that the Board will be divided into three classes of directors, with the classes to be as nearly equal as possible, and with the directors serving three-year terms, therefore making it more difficult for stockholders to change the composition of the Board; and
- do not provide for cumulative voting rights, therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose.

The combination of these provisions will make it more difficult for the existing stockholders to replace the Board as well as for another party to obtain control of LanzaTech by replacing the Board. Because the Board has the power to retain and discharge its officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for the Board to issue shares of preferred stock with voting or other rights or preferences that could impede the success of any attempt to change the control of LanzaTech.

These provisions are intended to enhance the likelihood of continued stability in the composition of the Board and its policies and to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to reduce LanzaTech’s vulnerability to hostile takeovers and to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for LanzaTech’s shares and may have the effect of delaying changes in its control or management. As a consequence, these provisions may also inhibit fluctuations in the market price of LanzaTech’s Common Stock.

Certain Anti-Takeover Provisions of Delaware Law

LanzaTech is subject to the provisions of Section 203 of the DGCL, which prevents certain Delaware corporations, under certain circumstances, from engaging in a “business combination” with:

- a stockholder who owns 15% or more of our outstanding voting stock (otherwise known as an “interested stockholder”);
- an affiliate of an interested stockholder; or
- an associate of an interested stockholder, for three years following the date that the stockholder became an interested stockholder.

A “business combination” includes a merger or sale of more than 10% of a corporation’s assets. However, the above provisions of Section 203 would not apply if:

- the relevant board of directors approves the transaction that made the stockholder an interested stockholder prior to the date of the transaction;
- after the completion of the transaction that resulted in the stockholder becoming an interested stockholder, that stockholder owned at least 85% of the corporation’s voting stock outstanding at the time the transaction commenced, other than statutorily excluded shares of common stock; or
- on or subsequent to the date of the transaction, the initial business combination is approved by the board of directors and authorized at a meeting of the corporation’s stockholders, and not by written consent, by an affirmative vote of at least two-thirds of the outstanding voting stock not owned by the interested stockholder.

These provisions may have the effect of delaying, deferring, or preventing changes in control of LanzaTech.

Limitations on Liability and Indemnification of Officers and Directors

The DGCL authorizes corporations to limit or eliminate the personal liability of directors of corporations and their stockholders for monetary damages for breaches of directors’ fiduciary duties, subject to certain exceptions. The Charter includes a provision that eliminates the personal liability of directors for damages for any breach of fiduciary duty as a director where, in civil proceedings, the person acted in good faith and in a manner that person reasonably believed to be in or not opposed to the best interests of LanzaTech or, in criminal proceedings, where the person had no reasonable cause to believe that his or her conduct was unlawful.

The Bylaws provide that we must indemnify and advance expenses to our directors and officers to the fullest extent authorized by the DGCL. We are also expressly authorized to carry directors’ and officers’ liability insurance providing indemnification for our directors, officers, and certain employees for some liabilities. We believe that these indemnification and advancement provisions and insurance are useful to attract and retain qualified directors and executive officers.

The limitation of liability, advancement and indemnification provisions in the Charter and Bylaws may discourage stockholders from bringing lawsuits against directors for breaches of their fiduciary duties. These provisions also may have the effect of reducing the likelihood of derivative litigation against directors and officers, even though such an action, if successful, might otherwise benefit us and our stockholders. In addition, your investment may be adversely affected to the extent we pay the costs of settlement and damage awards against directors and officer pursuant to these indemnification provisions.

Dissenters’ Rights of Appraisal and Payment

Under the DGCL, with certain exceptions, stockholders will have appraisal rights in connection with a merger or consolidation of LanzaTech. Pursuant to the DGCL, stockholders who properly request and perfect appraisal

rights in connection with such merger or consolidation will have the right to receive payment of the fair value of their shares as determined by the Delaware Court of Chancery.

Stockholders' Derivative Actions

Under the DGCL, any of our stockholders may bring an action in LanzaTech's name to procure a judgment in LanzaTech's favor, also known as a derivative action, provided that the stockholder bringing the action is a holder of our shares at the time of the transaction to which the action relates or such stockholder's stock thereafter devolved by operation of law.

DILUTION

If you invest in our common stock in this offering, your ownership interest may be diluted to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of our common stock immediately after this offering.

As of June 30, 2024, our net tangible book value was \$67.5 million, or \$0.34 per share of common stock. Net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by the number of shares of common stock outstanding as of June 30, 2024.

After giving effect to the assumed sale of our common stock in the aggregate amount of \$100,000,000 at an assumed offering price of \$2.04 per share, the closing price of our common stock on Nasdaq on October 4, 2024, and after deducting commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of June 30, 2024 would have been \$163.6 million, or \$0.66 per share of common stock. This amount would represent an immediate increase in net tangible book value of \$0.32 per share to our existing stockholders and an immediate decrease in net tangible book value of \$1.38 per share to investors purchasing shares in this offering.

The following table illustrates this calculation on a per share basis. The as adjusted information is illustrative only and will adjust based on the actual price to the public, the actual number of shares sold and other terms of the offering determined at the time shares of our common stock are sold pursuant to this prospectus. The shares sold in this offering, if any, will be sold from time to time at various prices. Therefore, while this illustration reflects accretion to investors purchasing shares in this offering, depending on the price at which shares are sold in this offering, investors purchasing shares in this offering may experience dilution.

Assumed public offering price per share		\$	2.04
Net tangible book value per share as of June 30, 2024	\$	0.34	
Increase in net tangible book value per share attributable to investors purchasing shares in this offering	\$	0.32	
As adjusted net tangible book value per share as of June 30, 2024, after giving effect to this offering		\$	0.66
Dilution per share to investors purchasing our common stock in this offering		\$	1.38

The table above assumes for illustrative purposes that an aggregate of 49,019,608 shares of our common stock are sold pursuant to this prospectus at a price of \$2.04 per share, the closing price of our common stock on Nasdaq on October 4, 2024, for aggregate gross proceeds of \$100,000,000. The shares sold in this offering, if any, will be sold from time to time at various prices pursuant to the Sales Agreement with the Sales Agents. A \$1.00 increase in the assumed public offering price of \$1.00 per share, which is the minimum sales price authorized by our board of directors, would increase our as adjusted net tangible book value per share to \$0.71, resulting in dilution to investors purchasing shares in this offering of \$2.33 per share, after deducting commissions and estimated offering expenses payable by us.

The foregoing table and calculations are based on 197,765,067 shares of our common stock outstanding as of June 30, 2024, and exclude:

- 4,774,276 shares of common stock that are issuable upon the exercise of the Private Placement Warrants originally issued in a private placement to the Sponsor in connection with the IPO of AMCI and upon the conversion of certain working capital loans of the Sponsor, at a price of \$1.00 per warrant;
- 7,499,924 shares of common stock that are issuable upon the exercise of the Public Warrants originally issued in connection with the AMCI IPO as units of AMCI at a price of \$10.00 per unit, with each unit consisting of one share of AMCI's Class A common stock and one-half of one warrant;
- 5,000,000 shares of common stock that are issuable upon the conversion of the Brookfield SAFE at the equivalent to a price of \$10.00 per share;

- 300,000 shares of common stock that are issuable under the AM Warrant at the equivalent to a price of \$10.00 per share;
- 4,083,486 shares of common stock issuable upon the exercise of the Shortfall Warrants;
- 19,072,207 shares of common stock issuable upon the exercise of Options outstanding as of June 30, 2024, at a weighted average exercise price of \$2.13 per share of Common Stock;
- 4,139,726 shares of common stock issuable upon the vesting of RSUs outstanding as of June 30, 2024;
- 3,746,205 shares of common stock issuable upon the vesting of PSUs outstanding as of June 30, 2024;
- 96,153,847 shares of common stock reserved for issuance upon conversion of our outstanding Convertible Notes; and
- 13,532,919 shares of common stock reserved for future issuance under our long-term incentive plan.

To the extent that any of the Convertible Securities are exercised, investors purchasing shares in this offering could experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations, even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or equity-based securities, the issuance of these securities could result in further dilution to our stockholders.

PLAN OF DISTRIBUTION

We have entered into the Sales Agreement and a Terms Agreement with B. Riley Securities, pursuant to which, under this prospectus we may issue and sell our common stock having aggregate sales proceeds of up to \$100,000,000 from time to time through or to B. Riley Securities, acting as sales agent or principal, subject to certain limitations. Sales of shares of our common stock, if any, will be made by any method deemed to be an “at the market offering” as defined in Rule 415 promulgated under the Securities Act.

Each time we wish to issue and sell common stock under the Sales Agreement pursuant to any agency sale, we will notify B. Riley Securities of the number of shares to be issued, the dates on which such sales are anticipated to be made, any minimum price below which sales may not be made and other sales parameters as we deem appropriate. B. Riley Securities has agreed that once we have so instructed it, unless B. Riley Securities declines to accept the terms of the notice, it will use its commercially reasonable efforts consistent with its normal trading and sales practices to sell such shares up to the amount specified on such terms.

From and after the date hereof, we will have the right, but not the obligation, from time to time at our sole discretion, to direct B. Riley Securities on any trading day to act on a principal basis and purchase up to the lesser of (i) 50% of the trading volume traded during normal trading hours on the trading day immediately prior to the date on which a commitment notice is delivered to B. Riley Securities and (ii) \$180,000, by timely delivering a written notice to B. Riley Securities in accordance with the Sales Agreement; provided, however, only one principal sale may be requested per day, unless otherwise agreed to by B. Riley Securities. Notwithstanding the foregoing, the aggregate amount of shares of common stock that we will direct B. Riley Securities to sell as principal in principal transactions (inclusive of any shares sold by B. Riley Securities in agency transactions) in any calendar week shall not exceed \$900,000.

B. Riley Securities will be entitled to a commission in an amount equal to (i) 3.0% of the gross proceeds per share sold under the Sales Agreement and (ii) 5.0% of the purchase price per share sold in principal transactions, under the Terms Agreement. B. Riley Securities may also receive customary brokerage commissions from purchasers of the common stock in compliance with FINRA Rule 2121. B. Riley Securities may effect sales to or through dealers, and such dealers may receive compensation in the form of discounts, concessions or commissions from B. Riley Securities and/or purchasers of shares of common stock for whom they may act as agents or to whom they may sell as principal. In addition, we have agreed to reimburse legal expenses of B. Riley Securities in an amount not to exceed \$100,000 in connection with the execution of this Agreement, and not to exceed \$10,000 per calendar quarter thereafter in connection with updates at the time of Representation Dates, in addition to certain ongoing disbursements of its legal counsel. We estimate that the total expenses for the offering, excluding compensation payable or fees reimbursable to B. Riley Securities under the terms of the Sales Agreement, will be approximately \$170,000.

Settlement for sales of common stock sold on an agency basis will occur on the first business day following the date on which any sales are made (or any such other settlement cycle as may be in effect pursuant to Rule 15c6-1 under the Exchange Act), or on some other date that is agreed upon by us and B. Riley Securities in connection with a particular agency transaction, in return for payment of the net proceeds to us. Settlement for sales of common stock sold on a principal basis shall occur as provided for in the applicable notice. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

The offering pursuant to the Sales Agreement will terminate upon the earliest of (a) the sale of all shares of common stock subject to the Sales Agreement or (b) termination of the Sales Agreement as permitted therein.

In connection with the sales of common stock on our behalf, B. Riley Securities will be deemed an “underwriter” within the meaning of the Securities Act, and the compensation of B. Riley Securities will be deemed underwriting commissions or discounts. We have agreed to provide indemnification and contribution to B. Riley Securities against certain civil liabilities, including liabilities under the Securities Act.

B. Riley Securities and its affiliates have in the past and may in the future provide various investment banking and other financial services for us and our affiliates, for which services they may in the future receive customary

fees. To the extent required by Regulation M, B. Riley Securities will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus supplement.

This prospectus in electronic format may be made available on a website maintained by B. Riley Securities, and B. Riley Securities may distribute this prospectus electronically.

LEGAL MATTERS

The validity of the securities by this prospectus will be passed upon for us by Covington & Burling LLP, Washington, D.C. Davis Polk & Wardwell LLP, New York, New York is counsel for B. Riley Securities in connection with this offering.

EXPERTS

The financial statements of LanzaTech Global, Inc. as of December 31, 2023 and 2022, and for each of the two years in the period ended December 31, 2023, incorporated by reference in this prospectus, and the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023, have been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their reports which express an unqualified opinion on the financial statements and an adverse opinion on the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting as of December 31, 2023. Such financial statements are incorporated by reference in reliance upon the reports of such firm given their authority as experts in accounting and auditing.

LanzaTech

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

The following table sets forth the various expenses payable by us in connection with the sale and distribution of the securities being registered hereby.

	Amount to be paid
SEC registration fee	\$ 165,771
FINRA filing fee	*
Legal fees and expenses	*
Accounting fees and expenses	*
Printing fees	*
Trustee and depository fees and expenses	*
Blue sky fees and expenses	*
Rating agency fees	*
Listing fees and expenses	*
Miscellaneous	*
Total	*

* The fees and expenses are variable based on the securities offered and the number of issuances and accordingly cannot be estimated at this time. The applicable prospectus supplement will set forth an estimate of such expenses incurred in connection with securities to be offered and sold pursuant to this registration statement.

Item 15. Indemnification of Directors and Officers.

Our second amended and restated certificate of incorporation (our “Charter”) provides that all of our directors, officers, employees and agents shall be entitled to be indemnified by us to the fullest extent permitted by Section 145 of the Delaware General Corporation Law (“DGCL”). Section 145 of the DGCL concerning indemnification of officers, directors, employees and agents is set forth below.

Section 145. Indemnification of officers, directors, employees and agents; insurance.

- (a) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person’s conduct was unlawful. The termination of any action, suit or proceeding by judgment, order, settlement, conviction, or upon a plea of nolo contendere or its equivalent, shall not, of itself, create a presumption that the person did not act in good faith and in a manner which the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had reasonable cause to believe that the person’s conduct was unlawful.
- (b) A corporation shall have power to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person is or was a director, officer, employee or agent

of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation and except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

- (c) (1) To the extent that a present or former director or officer of a corporation has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith. For indemnification with respect to any act or omission occurring after December 31, 2020, references to "officer" for purposes of paragraphs (c)(1) and (2) of this section shall mean only a person who at the time of such act or omission is deemed to have consented to service by the delivery of process to the registered agent of the corporation pursuant to § 3114(b) of Title 10 (for purposes of this sentence only, treating residents of this State as if they were nonresidents to apply § 3114(b) of Title 10 to this sentence).
- (2) The corporation may indemnify any other person who is not a present or former director or officer of the corporation against expenses (including attorneys' fees) actually and reasonably incurred by such person to the extent he or she has been successful on the merits or otherwise in defense of any action, suit or proceeding referred to in subsections (a) and (b) of this section, or in defense of any claim, issue or matter therein.
- (d) Any indemnification under subsections (a) and (b) of this section (unless ordered by a court) shall be made by the corporation only as authorized in the specific case upon a determination that indemnification of the present or former director, officer, employee or agent is proper in the circumstances because the person has met the applicable standard of conduct set forth in subsections (a) and (b) of this section. Such determination shall be made, with respect to a person who is a director or officer of the corporation at the time of such determination:
- (1) By a majority vote of the directors who are not parties to such action, suit or proceeding, even though less than a quorum; or
 - (2) By a committee of such directors designated by majority vote of such directors, even though less than a quorum; or
 - (3) If there are no such directors, or if such directors so direct, by independent legal counsel in a written opinion; or
 - (4) By the stockholders.
- (e) Expenses (including attorneys' fees) incurred by an officer or director of the corporation in defending any civil, criminal, administrative or investigative action, suit or proceeding may be paid by the corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such director or officer to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the corporation as authorized in this section. Such expenses (including attorneys' fees) incurred by former directors and officers or other employees and agents of the corporation or by persons serving at the request of the corporation as directors, officers, employees or agents of another corporation, partnership, joint venture, trust or other enterprise may be so paid upon such terms and conditions, if any, as the corporation deems appropriate.

- (f) The indemnification and advancement of expenses provided by, or granted pursuant to, the other subsections of this section shall not be deemed exclusive of any other rights to which those seeking indemnification or advancement of expenses may be entitled under any bylaw, agreement, vote of stockholders or disinterested directors or otherwise, both as to action in such person's official capacity and as to action in another capacity while holding such office. A right to indemnification or to advancement of expenses arising under a provision of the certificate of incorporation or a bylaw shall not be eliminated or impaired by an amendment to or repeal or elimination of the certificate of incorporation or the bylaws after the occurrence of the act or omission that is the subject of the civil, criminal, administrative or investigative action, suit or proceeding for which indemnification or advancement of expenses is sought, unless the provision in effect at the time of such act or omission explicitly authorizes such elimination or impairment after such action or omission has occurred.
- (g) A corporation shall have power to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of such person's status as such, whether or not the corporation would have the power to indemnify such person against such liability under this section. For purposes of this subsection, insurance shall include any insurance provided directly or indirectly (including pursuant to any fronting or reinsurance arrangement) by or through a captive insurance company organized and licensed in compliance with the laws of any jurisdiction, including any captive insurance company licensed under Chapter 69 of Title 18, provided that the terms of any such captive insurance shall:
- (1) Exclude from coverage thereunder, and provide that the insurer shall not make any payment for, loss in connection with any claim made against any person arising out of, based upon or attributable to any (i) personal profit or other financial advantage to which such person was not legally entitled or (ii) deliberate criminal or deliberate fraudulent act of such person, or a knowing violation of law by such person, if (in the case of the foregoing paragraph (g)(1)(i) or (ii) of this section) established by a final, nonappealable adjudication in the underlying proceeding in respect of such claim (which shall not include an action or proceeding initiated by the insurer or the insured to determine coverage under the policy), unless and only to the extent such person is entitled to be indemnified therefor under this section;
 - (2) Require that any determination to make a payment under such insurance in respect of a claim against a current director or officer (as defined in paragraph (c)(1) of this section) of the corporation shall be made by a independent claims administrator or in accordance with the provisions of paragraphs (d)(1) through (4) of this section; and
 - (3) Require that, prior to any payment under such insurance in connection with any dismissal or compromise of any action, suit or proceeding brought by or in the right of a corporation as to which notice is required to be given to stockholders, such corporation shall include in such notice that a payment is proposed to be made under such insurance in connection with such dismissal or compromise.

For purposes of paragraph (g)(1) of this section, the conduct of an insured person shall not be imputed to any other insured person. A corporation that establishes or maintains a captive insurance company that provides insurance pursuant to this section shall not, solely by virtue thereof, be subject to the provisions of Title 18.

- (h) For purposes of this section, references to "the corporation" shall include, in addition to the resulting corporation, any constituent corporation (including any constituent of a constituent) absorbed in a consolidation or merger which, if its separate existence had continued, would have had power and authority to indemnify its directors, officers, and employees or agents, so that any person who is or was a director, officer, employee or agent of such constituent corporation, or is or was serving at the request of such constituent corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, shall stand in the same position under this section with respect to the

resulting or surviving corporation as such person would have with respect to such constituent corporation if its separate existence had continued.

- (i) For purposes of this section, references to “other enterprises” shall include employee benefit plans; references to “fines” shall include any excise taxes assessed on a person with respect to any employee benefit plan; and references to “serving at the request of the corporation” shall include any service as a director, officer, employee or agent of the corporation which imposes duties on, or involves services by, such director, officer, employee or agent with respect to an employee benefit plan, its participants or beneficiaries; and a person who acted in good faith and in a manner such person reasonably believed to be in the interest of the participants and beneficiaries of an employee benefit plan shall be deemed to have acted in a manner “not opposed to the best interests of the corporation” as referred to in this section.
- (j) The indemnification and advancement of expenses provided by, or granted pursuant to, this section shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.
- (k) The Court of Chancery is hereby vested with exclusive jurisdiction to hear and determine all actions for advancement of expenses or indemnification brought under this section or under any bylaw, agreement, vote of stockholders or disinterested directors, or otherwise. The Court of Chancery may summarily determine a corporation’s obligation to advance expenses (including attorneys’ fees).

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers, and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment of expenses incurred or paid by a director, officer or controlling person in a successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, we will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to the court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.

In accordance with Section 102(b)(7) of the DGCL, our Charter provides that no director shall be personally liable to us or any of our stockholders for monetary damages resulting from breaches of their fiduciary duty as directors, except to the extent such limitation on or exemption from liability is not permitted under the DGCL. The effect of this provision of our Charter is to eliminate our rights and those of our stockholders (through stockholders’ derivative suits on our behalf) to recover monetary damages against a director for breach of the fiduciary duty of care as a director, including breaches resulting from negligent or grossly negligent behavior, except, as restricted by Section 102(b)(7) of the DGCL. However, this provision does not limit or eliminate our rights or the rights of any stockholder to seek non-monetary relief, such as an injunction or rescission, in the event of a breach of a director’s duty of care.

If the DGCL is amended to authorize corporate action further eliminating or limiting the liability of directors, then, in accordance with our Charter, the liability of our directors to us or our stockholders will be eliminated or limited to the fullest extent authorized by the DGCL, as so amended. Any repeal or amendment of provisions of our Charter limiting or eliminating the liability of directors, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to further limit or eliminate the liability of directors on a retroactive basis.

Our Charter also provides that we will, to the fullest extent authorized or permitted by applicable law, indemnify our current and former officers and directors, as well as those persons who, while directors or officers of our corporation, are or were serving as directors, officers, employees or agents of another entity, trust or other enterprise, including service with respect to an employee benefit plan, in connection with any threatened, pending or completed proceeding, whether civil, criminal, administrative or investigative, against all expense, liability and loss

(including, without limitation, attorney's fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred or suffered by any such person in connection with any such proceeding.

Notwithstanding the foregoing, a person eligible for indemnification pursuant to our Charter will be indemnified by us in connection with a proceeding initiated by such person only if such proceeding was authorized by our board of directors, except for proceedings to enforce rights to indemnification.

The right to indemnification which is conferred by our Charter is a contract right that includes the right to be paid by us the expenses incurred in defending or otherwise participating in any proceeding referenced above in advance of its final disposition, provided, however, that if the DGCL requires, an advancement of expenses incurred by our officer or director (solely in the capacity as an officer or director of our corporation) will be made only upon delivery to us of an undertaking, by or on behalf of such officer or director, to repay all amounts so advanced if it is ultimately determined that such person is not entitled to be indemnified for such expenses under our Charter or otherwise.

The rights to indemnification and advancement of expenses will not be deemed exclusive of any other rights which any person covered by our Charter may have or hereafter acquire under law, our Charter, our amended and restated bylaws (the "Bylaws"), an agreement, vote of stockholders or disinterested directors, or otherwise.

Any repeal or amendment of provisions of our Charter affecting indemnification rights, whether by our stockholders or by changes in law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing at the time of such repeal or amendment or adoption of such inconsistent provision with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision. Our Charter will also permit us, to the extent and in the manner authorized or permitted by law, to indemnify and to advance expenses to persons other than those specifically covered by our Charter.

Our Bylaws include the provisions relating to advancement of expenses and indemnification rights consistent with those which are set forth in our Charter. In addition, our Bylaws provide for a right of indemnity to bring a suit in the event a claim for indemnification or advancement of expenses is not paid in full by us within a specified period of time. Our Bylaws also permit us to purchase and maintain insurance, at our expense, to protect us and/or any director, officer, employee or agent of our corporation or another entity, trust or other enterprise against any expense, liability or loss, whether or not we would have the power to indemnify such person against such expense, liability or loss under the DGCL.

Any repeal or amendment of provisions of our Bylaws affecting indemnification rights, whether by our board of directors, stockholders or by changes in applicable law, or the adoption of any other provisions inconsistent therewith, will (unless otherwise required by law) be prospective only, except to the extent such amendment or change in law permits us to provide broader indemnification rights on a retroactive basis, and will not in any way diminish or adversely affect any right or protection existing thereunder with respect to any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision.

We have entered into customary indemnification agreements with our directors and executive officers.

Item 16. Exhibits.

Exhibit Number	Description
1.1**	Form of Underwriting Agreement.
1.2*	At Market Issuance Sale Agreement, dated May 9, 2024 by and between LanzaTech Global, Inc. and B. Riley Securities, Inc.
1.3*	Terms Agreement, dated May 9, 2024, by and between LanzaTech Global, Inc. and B. Riley Securities, Inc.
3.1	Second Amended and Restated Certificate of Incorporation of LanzaTech Global, Inc. as amended.
3.2*	Amended and Restated Bylaws of LanzaTech Global, Inc. (incorporated by reference to Exhibit 3.2 of LanzaTech Global Inc.'s Current Report on Form 8-K, filed with the SEC on February 13, 2023).
4.1*	Description of the Company's securities registered pursuant to Section 12 of the Securities Exchange Act of 1934, as amended (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).
4.2**	Form of certificate of designation with respect to any preferred stock.
4.3**	Form of preferred stock certificate.
4.4**	Form of warrant agreement.
4.5**	Form of warrant certificate.
4.6*	Form of senior indenture.
4.7*	Form of senior debt security (included in Exhibit 4.6).
4.8*	Form of subordinated indenture.
4.9*	Form of subordinated debt security (included in Exhibit 4.8).
4.10**	Form of subscription rights agreement.
4.11**	Form of subscription rights certificate.
4.12**	Form of unit agreement.
4.13**	Form of unit certificate.
4.14*	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).
4.15*	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).
4.16*	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).
4.17*	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).
4.18*	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).
4.19*	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).
4.20*	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).
4.21*	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).
4.22*	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).

Exhibit Number	Description
4.23*	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).
4.24*	Assignment and Novation Agreement, dated February 3, 2023, by and among AMCI Acquisition Corp. II, LanzaTech NZ, Inc., ACM ARRT H LLC, 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).
4.25*	Form of 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).
4.25.1*	Form of Amended 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).
4.26*	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).
4.27*	Simple Agreement for Future Equity, dated as of October 2, 2022, by and between LanzaTech NZ, Inc. and BGTF LT Aggregator LP (incorporated by reference to Exhibit 10.38 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023).
4.27.1*	Amendment No. 1 to Simple Agreement for Future Equity, dated as of December 30, 2022, by and between LanzaTech NZ, Inc. and BGTF LT Aggregator LP (incorporated by reference to Exhibit 10.38.1 of AMCI Acquisition Corp. II.'s Registration Statement on S-4/A, filed with the SEC on January 10, 2023).
5.1*	Opinion of Covington & Burling LLP.
5.2*	Opinion of Covington & Burling LLP.
5.3*	Opinion of Covington & Burling LLP.
23.1*	Consent of Covington & Burling LLP (included in Exhibit 5.1)
23.2*	Consent of Covington & Burling LLP (included in Exhibit 5.2)
23.3*	Consent of Covington & Burling LLP (included in Exhibit 5.3)
23.3	Consent of Deloitte & Touche LLP.
24.1*	Power of attorney.
25.1***	Statement of Eligibility of Trustee on Form T-1 under Trust Indenture Act of 1939.
107*	Filing Fee Table.

* Previously filed

** To be filed by amendment or as an exhibit to a document filed under the Exchange Act and incorporated by reference herein.

*** To be filed separately pursuant to Section 305(b)(2) of the Trust Indenture Act of 1939, and the rules and regulations thereunder.

Item 17. Undertakings.

The undersigned registrant hereby undertakes:

- (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act;
 - (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and

price represent no more than a 20% change in the maximum aggregate offering price set forth in the “*Calculation of Registration Fee*” table in the effective registration statement; and

- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that the undertakings set forth in paragraphs (1)(i), (1)(ii) and (1)(iii) do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the SEC by the registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in this registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
- (4) That, for purpose of determining liability under the Securities Act to any purchaser:
 - (i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

- (5) That, for the purpose of determining liability of the registrant under the Securities Act to any purchaser in the initial distribution of the securities: The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
 - (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by such undersigned registrant;

- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the U.S. Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (8) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under Section 305(b)(2) of the Trust Indenture Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and 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 October 11, 2024.

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 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)	October 11, 2024
<u>/s/ Geoff Trukenbrod</u> Geoff Trukenbrod	Chief Financial Officer (Principal Financial Officer)	October 11, 2024
<u>/s/ George Dimitrov</u> George Dimitrov	Vice President, Finance (Principal Accounting Officer)	October 11, 2024
<u>*</u> Barbara Byrne	Director	October 11, 2024
<u>*</u> Nigel Gormly	Director	October 11, 2024
<u>*</u> Dorri McWhorter	Director	October 11, 2024
<u>*</u> Jim Messina	Director	October 11, 2024
<u>*</u> Gary Rieschel	Director	October 11, 2024

*By: /s/ Geoff Trukenbrod
Geoff Trukenbrod
As Attorney-in-Fact

**SECOND AMENDED AND RESTATED
CERTIFICATE OF INCORPORATION
OF
AMCI ACQUISITION CORP. II**

February 8, 2023

AMCI Acquisition Corp. II, a corporation organized and existing under the laws of the State of Delaware (the “*Corporation*”), DOES HEREBY CERTIFY AS FOLLOWS:

1. The name of the Corporation is “AMCI Acquisition Corp. II.” The original certificate of incorporation was filed with the Secretary of State of the State of Delaware on January 28, 2021 (the “*Original Certificate*”). The Corporation filed an amended and restated certificate of incorporation with the Secretary of State of the State of Delaware on August 3, 2021 (the “*Existing Certificate*”).
2. This Second Amended and Restated Certificate of Incorporation (the “*Amended and Restated Certificate*”), which both restates and amends the provisions of the Existing Certificate, was duly adopted in accordance with Sections 242 and 245 of the General Corporation Law of the State of Delaware, as amended from time to time (the “*DGCL*”).
3. This Second Amended and Restated Certificate shall become effective on the date of filing with the Secretary of State of Delaware.
4. Certain capitalized terms used in this Amended and Restated Certificate are defined where appropriate herein.
5. The text of the Existing Certificate is hereby restated and amended in its entirety to read as follows:

**ARTICLE I
NAME**

The name of the corporation is LanzaTech Global, Inc. (the “*Corporation*”).

**ARTICLE II
PURPOSE**

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the DGCL.

**ARTICLE III
REGISTERED AGENT**

The address of the Corporation’s registered office in the State of Delaware is 251 Little Falls Drive, in the City of Wilmington, County of New Castle, State of Delaware, 19808, and the name of the Corporation’s registered agent at such address is Corporation Service Company.

**ARTICLE IV
CAPITALIZATION**

Section 4.1 Authorized Capital Stock. The total number of shares of all classes of capital stock, each with a par value of \$0.0001 per share, which the Corporation is authorized to issue is 420,000,000 shares, consisting of (a) 400,000,000 shares of common stock (the “*Common Stock*”) and (b) 20,000,000 shares of preferred stock (the “*Preferred Stock*”).

Section 4.2 Preferred Stock. The Board of Directors of the Corporation (the “*Board*”) is hereby expressly authorized to provide, out of the unissued shares of the Preferred Stock, for one or more series of Preferred Stock and to establish from time to time the number of shares to be included in each such series and to fix the voting rights, if any, designations, powers, preferences and relative, participating, optional, special and other rights, if any, of each such series and any qualifications, limitations and restrictions thereof, as shall be stated in the resolution or resolutions adopted by the Board providing for the issuance of such series and included in a certificate of designation (a “*Preferred Stock Designation*”) filed pursuant to the DGCL, and the Board is hereby expressly vested with the authority to the full extent provided by law, now or hereafter, to adopt any such resolution or resolutions.

[Signature Page to Second Amended and Restated Certificate of Incorporation]

Section 4.3 Common Stock.

(a) *Voting*.

(i) Except as otherwise required by law or this Amended and Restated Certificate (including any Preferred Stock Designation), the holders of the Common Stock shall exclusively possess all voting power with respect to the Corporation.

(ii) Except as otherwise required by law or this Amended and Restated Certificate (including any Preferred Stock Designation), the holders of shares of Common Stock shall be entitled to one vote for each such share on each matter properly submitted to the stockholders on which the holders of the Common Stock are entitled to vote.

(iii) Except as otherwise required by law or this Amended and Restated Certificate (including any Preferred Stock Designation), at any annual or special meeting of the stockholders of the Corporation, holders of the Common Stock shall have the exclusive right to vote for the election of directors and on all other matters properly submitted to a vote of the stockholders. Notwithstanding the foregoing, except as otherwise required by law or this Amended and Restated Certificate (including any Preferred Stock Designation), holders of shares of Common Stock shall not be entitled to vote on any amendment to this Amended and Restated Certificate (including any amendment to any Preferred Stock Designation) that relates solely to the terms of one or more outstanding series of Preferred Stock if the holders of such affected series of Preferred Stock are entitled exclusively, either separately or together with the holders of one or more other such series, to vote thereon pursuant to this Amended and Restated Certificate (including any Preferred Stock Designation) or the DGCL.

(b) *Dividends*. Subject to applicable law and the rights, if any, of the holders of any outstanding series of the Preferred Stock, the holders of shares of Common Stock shall be entitled to receive such dividends and other distributions (payable in cash, property or capital stock of the Corporation) when, as and if declared thereon by the Board from time to time out of any assets or funds of the Corporation legally available therefor and shall share equally on a per share basis in such dividends and distributions.

(c) *Liquidation, Dissolution or Winding Up of the Corporation*. Subject to applicable law and the rights, if any, of the holders of any outstanding series of the Preferred Stock, in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Corporation, after payment or provision for payment of the debts and other liabilities of the Corporation, the holders of shares of Common Stock shall be entitled to receive all the remaining assets of the Corporation available for distribution to its stockholders, ratably in proportion to the number of shares of Common Stock held by them.

Section 4.4 Rights and Options. The Corporation has the authority to create and issue rights, warrants and options entitling the holders thereof to acquire from the Corporation any shares of its capital stock of any class or classes, with such rights, warrants and options to be evidenced by or in instrument(s) approved by the Board. The Board is empowered to set the exercise price, duration, times for exercise and other terms and conditions of such rights, warrants or options; provided, however, that the consideration to be received for any shares of capital stock issuable upon exercise thereof may not be less than the par value thereof.

**ARTICLE V
BOARD OF DIRECTORS**

Section 5.1 Board Powers. The business and affairs of the Corporation shall be managed by, or under the direction of, the Board. In addition to the powers and authority expressly conferred upon the Board by statute, this Amended and Restated Certificate or the Bylaws of the Corporation ("*Bylaws*"), the Board is hereby empowered to exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the DGCL, this Amended and Restated Certificate and any Bylaws adopted by the stockholders of the Corporation; provided, however, that no Bylaws hereafter adopted by the stockholders of the Corporation shall invalidate any prior act of the Board that would have been valid if such Bylaws had not been adopted.

Section 5.2 Number, Election and Term.

(a) The number of directors of the Corporation, other than those who may be elected by the holders of one or more series of the Preferred Stock voting separately by class or series, shall be fixed from time to time exclusively by the Board pursuant to a resolution adopted by a majority of the Board.

(b) Subject to Section 5.5 hereof, the Board shall be divided into three classes, as nearly equal in number as possible and designated Class I, Class II and Class III. The Board is authorized to assign members of the Board already in office to Class I, Class II or Class III. The term of the initial Class I Directors shall expire at the first annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate or the election and qualification of their respective successors in office, subject to their earlier death, resignation or removal. The term of the initial Class II Directors shall expire at the second annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate or the election and qualification of their respective successors in office, subject to their earlier death, resignation or removal. The term of the initial Class III Directors shall expire at the third annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate or the election and qualification of their respective successors in office, subject to their earlier death, resignation or removal. At each succeeding annual meeting of the stockholders of the Corporation, beginning with the first annual meeting of the stockholders of the Corporation following the effectiveness of this Amended and Restated Certificate, each of the successors elected to replace the class of directors whose term expires at that annual meeting shall be elected for a three-year term or until the election and qualification of their respective successors in office, subject to their earlier death, resignation or removal. Subject to Section 5.5 hereof, if the number of directors that constitutes the Board is changed, any increase or decrease shall be apportioned by the Board among the classes so as to maintain the number of directors in each class as nearly equal as possible, but in no case shall a decrease in the number of directors constituting the Board shorten the term of any incumbent director. Subject to the rights of the holders of one or more series of Preferred Stock, voting separately by class or series, to elect directors pursuant to the terms of one or more series of Preferred Stock, the election of directors shall be determined by a plurality of the votes cast by the stockholders present in person or represented by proxy at the meeting and entitled to vote thereon. The Board is hereby expressly authorized, by resolution or resolutions thereof, to assign members of the Board already in office to the aforesaid classes at the time this Amended and Restated Certificate (and therefore such classification) becomes effective in accordance with the DGCL.

(c) Subject to Section 5.5 hereof, a director shall hold office until the annual meeting for the year in which his or her term expires and until his or her successor has been elected and qualified, subject, however, to such director's earlier death, resignation, retirement, disqualification or removal.

(d) Unless and except to the extent that the Bylaws shall so require, the election of directors need not be by written ballot. The holders of shares of Common Stock shall not have cumulative voting rights with regard to election of directors.

Section 5.3 Newly Created Directorships and Vacancies. Subject to Section 5.5 hereof, newly created directorships resulting from an increase in the number of directors and any vacancies on the Board resulting from death, resignation, retirement, disqualification, removal or other cause may be filled solely and exclusively by a majority vote of the remaining directors then in office, even if less than a quorum or by a sole remaining director (and not by stockholders), and any director so chosen shall hold office for the remainder of the full term of the class of directors to which the new directorship was added or in which the vacancy occurred and until his or her successor has been elected and qualified, subject, however, to such director's earlier death, resignation, retirement, disqualification or removal.

Section 5.4 Removal. Subject to Section 5.5 hereof, any or all of the directors may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 $\frac{2}{3}$ %) of the voting power of all then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class.

Section 5.5 Preferred Stock — Directors. Notwithstanding any other provision of this *Article V*, and except as otherwise required by law, whenever the holders of one or more series of the Preferred Stock shall have the right, voting separately by class or series, to elect one or more directors, the term of office, the filling of vacancies, the removal from office and other features of such directorships shall be governed by the terms of such series of the Preferred Stock as set forth in this Amended and Restated Certificate (including any Preferred Stock Designation) and such directors shall not be included in any of the classes created pursuant to this *Article V* unless expressly provided by such terms.

Section 5.6 Quorum. A quorum for the transaction of business by the directors shall be set forth in the Bylaws.

ARTICLE VI BYLAWS

In furtherance and not in limitation of the powers conferred upon it by law, the Board shall have the power and is expressly authorized to adopt, amend, alter or repeal the Bylaws. The affirmative vote of a majority of the Board shall be required to adopt, amend, alter or repeal the Bylaws. The Bylaws also may be adopted, amended, altered or repealed by the stockholders; provided, however, that in addition to any vote of the holders of any class or series of capital stock of the Corporation required by law or by this Amended and Restated Certificate (including any Preferred Stock Designation), and except as otherwise set forth in the Bylaws, the affirmative vote of the holders of at least a majority of the voting power of all then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required for the stockholders to adopt, amend, alter or repeal the Bylaws; and provided further, however, that no Bylaws hereafter adopted by the stockholders shall invalidate any prior act of the Board that would have been valid if such Bylaws had not been adopted.

ARTICLE VII SPECIAL MEETINGS OF STOCKHOLDERS; ADVANCE NOTICE; NO ACTION BY WRITTEN CONSENT

Section 7.1 Special Meetings. Subject to the rights, if any, of the holders of any outstanding series of the Preferred Stock, and to the requirements of applicable law, special meetings of stockholders of the Corporation may be called only by the Chairman of the Board, Chief Executive Officer of the Corporation, or the Board pursuant to a resolution adopted by a majority of the Board, and the ability of the stockholders to call a special meeting is hereby specifically denied. Except as provided in the foregoing sentence, special meetings of stockholders may not be called by another person or persons.

Section 7.2 Advance Notice. Advance notice of stockholder nominations for the election of directors and of business to be brought by stockholders before any meeting of the stockholders of the Corporation shall be given in the manner provided in the Bylaws.

Section 7.3 No Action by Written Consent. Any action required or permitted to be taken by the stockholders of the Corporation must be effected by a duly called annual or special meeting of such stockholders and may not be effected by written consent of the stockholders.

ARTICLE VIII LIMITED LIABILITY; INDEMNIFICATION

Section 8.1 Limitation of Director Liability. A director of the Corporation shall not be personally liable to the Corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL as the same exists or may hereafter be amended unless a director violated his or her duty of loyalty to the Corporation or its stockholders, acted in bad faith, knowingly or intentionally violated the law, authorized unlawful payments of dividends, unlawful stock purchases or unlawful redemptions, or derived improper personal benefit from his or her actions as a director. Any amendment, modification or repeal of the foregoing sentence shall not adversely affect any right or protection of a director of the Corporation hereunder in respect of any act or omission occurring prior to the time of such amendment, modification or repeal.

Section 8.2 Indemnification and Advancement of Expenses.

(a) To the fullest extent permitted by applicable law, as the same exists or may hereafter be amended, the Corporation shall indemnify and hold harmless each person who is or was made a party to or is threatened to be made a party to or is otherwise involved in any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (a "*proceeding*") by reason of the fact that he or she is or was a director or officer of the Corporation or any predecessor of the Corporation or, while a director or officer of the Corporation, is or was serving at the request of the Corporation as a director, officer, employee or agent of another corporation or of a partnership, joint venture, trust, other enterprise or nonprofit entity, including service with respect to an employee benefit plan (an "*indemnitee*"), whether the basis of such proceeding is alleged action in an official capacity as a

director, officer, employee or agent, or in any other capacity while serving as a director, officer, employee or agent, against all liability and loss suffered and expenses (including, without limitation, attorneys' fees, judgments, fines, ERISA excise taxes and penalties and amounts paid in settlement) reasonably incurred by such indemnitee in connection with such proceeding. The Corporation shall to the fullest extent not prohibited by applicable law pay the expenses (including attorneys' fees) incurred by an indemnitee in defending or otherwise participating in any proceeding in advance of its final disposition; provided, however, that, to the extent required by applicable law, such payment of expenses in advance of the final disposition of the proceeding shall be made only upon receipt of an undertaking, by or on behalf of the indemnitee, to repay all amounts so advanced if it shall ultimately be determined that the indemnitee is not entitled to be indemnified under this Section 8.2 or otherwise. The rights to indemnification and advancement of expenses conferred by this Section 8.2 shall be contract rights and such rights shall continue as to an indemnitee who has ceased to be a director, officer, employee or agent and shall inure to the benefit of his or her heirs, executors and administrators. Notwithstanding the foregoing provisions of this Section 8.2(a), except for proceedings to enforce rights to indemnification and advancement of expenses, the Corporation shall indemnify and advance expenses to an indemnitee in connection with a proceeding (or part thereof) initiated by such indemnitee only if such proceeding (or part thereof) was authorized by the Board.

(b) The rights to indemnification and advancement of expenses conferred on any indemnitee by this Section 8.2 shall not be exclusive of any other rights that any indemnitee may have or hereafter acquire under law, this Amended and Restated Certificate, the Bylaws, an agreement, vote of stockholders or disinterested directors, or otherwise.

(c) Any repeal or amendment of this Section 8.2 by the stockholders of the Corporation or by changes in law, or the adoption of any other provision of this Amended and Restated Certificate inconsistent with this Section 8.2, shall, unless otherwise required by law, be prospective only (except to the extent such amendment or change in law permits the Corporation to provide broader indemnification rights on a retroactive basis than permitted prior thereto), and shall not in any way diminish or adversely affect any right or protection existing at the time of such repeal or amendment or adoption of such inconsistent provision in respect of any proceeding (regardless of when such proceeding is first threatened, commenced or completed) arising out of, or related to, any act or omission occurring prior to such repeal or amendment or adoption of such inconsistent provision.

(d) This Section 8.2 shall not limit the right of the Corporation, to the extent and in the manner authorized or permitted by law, to indemnify and to advance expenses to persons other than indemnitees.

ARTICLE IX AMENDMENT OF AMENDED AND RESTATED CERTIFICATE OF INCORPORATION

The Corporation reserves the right at any time and from time to time to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate (including any Preferred Stock Designation), and other provisions authorized by the laws of the State of Delaware at the time in force that may be added or inserted, in the manner now or hereafter prescribed by this Amended and Restated Certificate and the DGCL; and, except as set forth in *Article VIII*, all rights, preferences and privileges of whatever nature herein conferred upon stockholders, directors or any other persons by and pursuant to this Amended and Restated Certificate in its present form or as hereafter amended are granted subject to the right reserved in this *Article IX*. Notwithstanding any other provisions of this Amended and Restated Certificate or any provision of applicable law which might otherwise permit a lesser vote, but in addition to any affirmative vote of the holders of any particular class or series of the capital stock of the Corporation required by law or by this Amended and Restated Certificate (including any Preferred Stock Designation), the affirmative vote of (i) two-thirds (2/3) of the directors then in office and (ii) the holders of at least sixty-six and two-thirds percent (66 $\frac{2}{3}$ %) of all then outstanding shares of capital stock of the Corporation entitled to vote generally in the election of directors, voting together as a single class, shall be required to amend, alter, change or repeal *Article V*, *Article VII*, *Article IX* and *Article X* of this Amended and Restated Certificate.

ARTICLE X EXCLUSIVE FORUM FOR CERTAIN LAWSUITS; CONSENT TO JURISDICTION

Section 10.1 Forum. Subject to the last sentence of this Section 10.1, and unless the Corporation consents in writing to the selection of an alternative forum, to the fullest extent permitted by law, the Court of Chancery of the State of Delaware (the "*Court of Chancery*") shall be the sole and exclusive forum for any stockholder (including a beneficial owner) to bring (i) any derivative action or proceeding brought on behalf of the Corporation, (ii) any

action asserting a claim of breach of a fiduciary duty owed by any current or former director, officer or other employee of the Corporation to the Corporation or the Corporation's stockholders, (iii) any action asserting a claim against the Corporation, its current or former directors, officers or employees arising pursuant to any provision of the DGCL or this Amended and Restated Certificate or the Bylaws, or (iv) any action asserting a claim against the Corporation, its current or former directors, officers or employees governed by the internal affairs doctrine (or, if the Court of Chancery does not have jurisdiction, the federal district court for the District of Delaware). Notwithstanding the foregoing, (i) the provisions of this Section 10.1 will not apply to suits brought to enforce a duty or liability created by the Securities Exchange Act of 1934, as amended, or any other claim for which the federal courts have exclusive jurisdiction and (ii) unless the Corporation consents in writing to the selection of an alternative forum, the federal courts of the United States of America shall, to the fullest extent permitted by law, be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act of 1933, as amended, or the rules and regulations promulgated thereunder.

Section 10.2 Consent to Jurisdiction. If any action the subject matter of which is within the scope of Section 10.1 immediately above is filed in a court other than a court located within the State of Delaware (a "**Foreign Action**") in the name of any stockholder, such stockholder shall be deemed to have consented to (i) the personal jurisdiction of the state and federal courts located within the State of Delaware in connection with any action brought in any such court to enforce Section 10.1 immediately above (an "**FSC Enforcement Action**") and (ii) having service of process made upon such stockholder in any such FSC Enforcement Action by service upon such stockholder's counsel in the Foreign Action as agent for such stockholder.

Section 10.3 Severability. If any provision or provisions of this *Article X* shall be held to be invalid, illegal or unenforceable as applied to any person or entity or circumstance for any reason whatsoever, then, to the fullest extent permitted by law, the validity, legality and enforceability of such provisions in any other circumstance and of the remaining provisions of this *Article X* (including, without limitation, each portion of any sentence of this *Article X* containing any such provision held to be invalid, illegal or unenforceable that is not itself held to be invalid, illegal or unenforceable) and the application of such provision to other persons or entities and circumstances shall not in any way be affected or impaired thereby.

Section 10.4 Deemed Notice. Any person or entity purchasing or otherwise acquiring or holding any interest in shares of capital stock of the Corporation shall be deemed to have notice of and consented to the provisions of this *Article X*.

[Signature Page Follows]

IN WITNESS WHEREOF, AMCI Acquisition Corp. II has caused this Second Amended and Restated Certificate to be duly executed and acknowledged in its name and on its behalf by an authorized officer as of the date first set forth above.

AMCI ACQUISITION CORP. II

By: /s/ Nimesh Patel

Name: Nimesh Patel

Title: Chief Executive Officer

[Signature Page to Second Amended and Restated Certificate of Incorporation]

CERTIFICATE OF AMENDMENT
OF
SECOND AMENDED AND RESTATED CERTIFICATE OF INCORPORATION
OF
LANZATECH GLOBAL, INC.

Pursuant to Section 242 of the
General Corporation Law of the State of Delaware

LanzaTech Global, Inc. (the "**Corporation**"), a corporation organized and existing under and by virtue of the General Corporation Law of the State of Delaware, does hereby certify as follows:

A resolution was duly adopted by the Board of Directors of the Corporation on August 28, 2024 pursuant to Section 242 of the General Corporation Law of the State of Delaware setting forth an amendment to the Second Amended and Restated Certificate of Incorporation of the Corporation filed with the Delaware Secretary of State on February 8, 2023 (the "**Certificate of Incorporation**"), and declaring said amendment to be advisable. On October 2, 2024, the stockholders of the Corporation duly approved said proposed amendment at the Corporation's Special Meeting of Stockholders in accordance with Section 242 of the General Corporation Law of the State of Delaware. The resolution setting forth the amendment is as follows:

RESOLVED: That the first sentence of Section 4.1 of the Certificate of Incorporation, be and hereby is deleted in its entirety and the following sentence is inserted in lieu thereof:

The total number of shares of all classes of capital stock, each with a par value of \$0.0001 per share, which the Corporation is authorized to issue is 620,000,000 shares, consisting of (a) 600,000,000 shares of common stock (the "**Common Stock**") and (b) 20,000,000 shares of preferred stock (the "**Preferred Stock**").

IN WITNESS WHEREOF, the Corporation has caused its corporate seal to be affixed hereto and this Certificate of Amendment to be signed by a duly authorized officer of the Corporation this 3rd day of October, 2024.

LANZATECH GLOBAL, INC.

By: /s/ Geoff Trukenbrod

Name: Geoff Trukenbrod

Title: Chief Financial Officer

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in this Registration Statement on Form S-3 of our reports dated February 29, 2024 relating to the financial statements of LanzaTech Global, Inc. and the effectiveness of LanzaTech Global, Inc.'s internal control over financial reporting, appearing in the Annual Report on Form 10-K of LanzaTech Global, Inc. for the year ended December 31, 2023. We also consent to the reference to us under the heading "Experts" in such Registration Statement.

/s/ Deloitte & Touche LLP

Chicago, Illinois

October 11, 2024