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

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**SCHEDULE 14A**  
Proxy Statement Pursuant to Section 14(a) of the  
Securities Exchange Act of 1934  
(Amendment No. )

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Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

- Preliminary Proxy Statement
- Confidential, for Use of the Commission Only (as permitted by Rule 14a-6(e)(2))
- Definitive Proxy Statement
- Definitive Additional Materials
- Soliciting Material under § 240.14a-12

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**LanzaTech Global, Inc.**

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(Name of Registrant as Specified in its Charter)

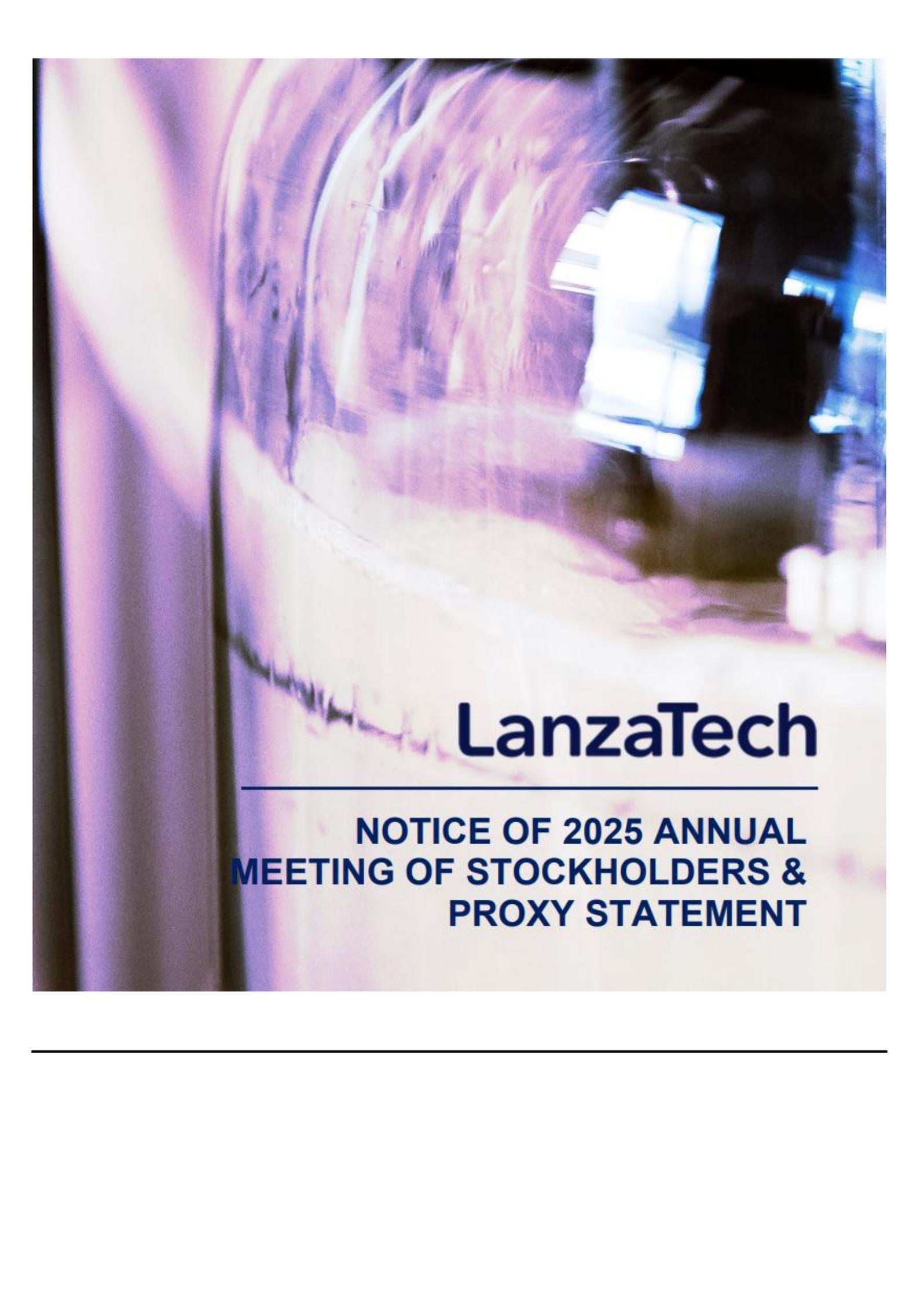
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(Name of Person(s) Filing Proxy Statement, if other than the Registrant)

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Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.
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# LanzaTech

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**NOTICE OF 2025 ANNUAL  
MEETING OF STOCKHOLDERS &  
PROXY STATEMENT**

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# LanzaTech

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

## URGENT – IMMEDIATE ACTION REQUESTED

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### NOTICE OF 2025 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON MONDAY, JULY 28, 2025

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To the Stockholders of LanzaTech Global, Inc.:

The 2025 Annual Meeting of Stockholders (the “Annual Meeting”) of LanzaTech Global, Inc. (the “Company,” “LanzaTech,” “we,” “us” or “our”) will be held at 2:00 p.m., Central Time, on Monday, July 28, 2025. The Annual Meeting will be held entirely online via audio webcast to allow for greater stockholder attendance and to reduce the carbon footprint that is required for travel to, and in-person attendance at, the Annual Meeting. The Annual Meeting may be accessed at <https://www.cstproxy.com/lanzatech/2025>, where you will be able to listen to the Annual Meeting live, submit questions and vote. We have designed the virtual Annual Meeting to provide stockholders with substantially the same opportunities to participate as if the Annual Meeting were held in person.

The Annual Meeting will be held to (i) elect two Class II directors to the Board of Directors to serve for a term expiring at the 2028 annual meeting of stockholders; (ii) ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025; (iii) cast an advisory (non-binding) vote to approve the compensation of our named executive officers; (iv) vote on the Special Proposals outlined herein, which are intended to satisfy our obligations under the Purchase Agreement (defined below); and (v) transact such other business as may properly come before the Annual Meeting and any adjournment or postponement thereof at the direction of the Board of Directors.

As we previously disclosed, on May 7, 2025, we entered into a Series A Convertible Senior Preferred Stock Purchase Agreement (as amended by Amendment No. 1 to the Series A Convertible Senior Preferred Stock Purchase Agreement, dated June 2, 2025 (the “Purchase Agreement Amendment”), and as it may be further amended from time to time, the “Purchase Agreement”) with LanzaTech Global SPV, LLC, an entity controlled by an existing investor in the Company (the “Purchaser”), pursuant to which we agreed to issue and sell 20,000,000 shares of our preferred stock designated as the “Series A Preferred Stock”, par value \$0.0001 per share (the “Preferred Stock”), to the Purchaser for an aggregate purchase price of \$40 million (the “Preferred Stock Issuance”). The Preferred Stock Issuance was consummated on May 7, 2025.

Pursuant to the Purchase Agreement, we also agreed to issue and sell to the Purchaser, a warrant (the “Warrant”) to purchase 780,000,000 shares (“Warrant Shares”) of our common stock (the “Common Stock”), at an exercise price equal to \$0.0000001 per Warrant Share (subject to adjustments in certain events, including the Reverse Stock Split (as described herein) and to be no less than the par value of the Common Stock). We will be required to issue the Warrant immediately prior to the consummation, if any, of a Financing (as defined below) (such time, the “Issuance Time”), if and only if the Issuance Time occurs on or prior to May 7, 2026. The Warrant will not be exercisable unless and until, among other things, the Requisite Stockholder Approvals (as defined herein) are obtained and we consummate either a Subsequent Financing (as defined herein) or, with the Purchaser’s consent, an Other Financing (as defined below) (any such Subsequent Financing or Other Financing, a “Financing”) (collectively, the “Conditions to Exercise”); provided, however, that if the Conditions to Exercise are satisfied, the Warrant will be

deemed automatically exercised, concurrently with the consummation of such Financing, on a cashless, net-exercise basis (the time immediately following such automatic exercise, the “Expiration Time”). The Warrant will terminate at the earlier of (i) the Expiration Time and (ii) May 7, 2026.

Under the Purchase Agreement, we are obligated to seek approval from our stockholders (collectively, the “Requisite Stockholder Approvals”) with respect to: (i) the issuance of shares of Common Stock issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with the Subsequent Financing (collectively, the “Issuable Common Shares”) and to effect any “change of control” in connection with the foregoing, in each case, in accordance with the rules of The Nasdaq Stock Market LLC (“Nasdaq”); and (ii) amendments to our certificate of incorporation to (a) effect a reverse stock split of the Common Stock (the “Reverse Stock Split”) and a corresponding decrease in the number of authorized shares of Common Stock, (b) authorize that number of shares of Common Stock that is sufficient to authorize and issue the Issuable Common Shares (the “Authorized Capitalization Amendment”), (c) set the par value of the Common Stock to an amount equal to the per-share exercise price of the Warrant and (d) provide that the Company’s stockholders may take action by written consent. The Purchaser has also agreed in the Purchase Agreement to vote all shares of Common Stock held by it prior to May 7, 2025 in favor of the Requisite Stockholder Approvals or, if there are insufficient votes in favor of granting the Requisite Stockholder Approvals, in favor of the adjournment of this Annual Meeting to a later date.

We are actively seeking capital. In the Purchase Agreement, and subject only to obtaining the Requisite Stockholder Approvals, we agreed to use our reasonable best efforts to consummate a bona fide financing pursuant to which we sell Common Stock to one or more accredited investors reasonably satisfactory to the holders of a majority of the outstanding Preferred Stock (the “Majority Holders”), at a price per share of \$0.05 (subject to adjustment in certain events, including the Reverse Stock Split), payable in cash, with an aggregate original issue price of not less than \$35 million and not more than \$60 million, on terms and conditions reasonably satisfactory to the Majority Holders (the “Subsequent Financing”). In addition, with the Majority Holders’ consent and in lieu of the Subsequent Financing, the Company may consummate any other financing that does not constitute a Subsequent Financing (an “Other Financing”). The Purchase Agreement provides that the Subsequent Financing must be consummated, if at all, no later than 45 days following receipt of the Requisite Stockholder Approvals.

The Annual Meeting is intended to satisfy our obligations under the Purchase Agreement and to provide us with greater flexibility to seek additional financing.

As discussed in detail in this proxy statement, our Board of Directors strongly recommends you vote “FOR” each of the following proposals:

1. To elect the two Class II director nominees named herein to the Board of Directors to serve for a term expiring at the 2028 Annual Meeting of Stockholders.
2. To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025.
3. To cast an advisory (non-binding) vote to approve the compensation of our named executive officers.
4. To approve an amendment to the Company’s Second Amended and Restated Certificate of Incorporation (as amended, the “Certificate of Incorporation”) to increase the number of authorized shares of Common Stock from 600,000,000 to 2,580,000,000 (which will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000) in order to provide a sufficient number of authorized shares to issue the Issuable Common Shares.

5. To approve an amendment to the Certificate of Incorporation to (a) effect a reverse stock split of the Common Stock, at a ratio of 100-for-1 and (b) if the Increased Authorized Share Proposal (as defined herein) and Reverse Stock Split Proposal (as defined herein) are implemented, proportionately decrease the authorized number of shares of Common Stock, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company.
6. To approve an amendment to the Certificate of Incorporation to permit stockholders to act by written consent.
7. To approve an amendment to the Certificate of Incorporation to decrease the par value of the Common Stock from \$0.0001 to \$0.0000001 per share.
8. To approve, for purposes of Nasdaq Listing Rule 5635(b), any “change of control” resulting from the issuance of shares of Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which Preferred Stock was issued (and the Warrant and any shares issued in a Financing are expected to be issued) in a private placement. For purposes of Nasdaq Listing Rule 5635(b), a “change of control” is generally deemed to occur when, as a result of an issuance, an investor or group of investors would own, or have the right to acquire, 20% or more of the outstanding shares of Common Stock or voting power of a company, and such ownership or voting power would have the largest ownership position in the company.
9. To approve, for purposes of Nasdaq Listing Rule 5635(d), the Company’s ability to issue shares of Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which Preferred Stock was issued (and the Warrant and any shares issued in a Financing are expected to be issued) in a private placement, which shares, independently or when taken together, would exceed 19.9% of the number of outstanding shares of Common Stock prior to such transactions.
10. To vote to approve one or more adjournments of the Annual Meeting to a later date or dates if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve any of the Proposals (as defined herein) at the time of the Annual Meeting or any adjournment or postponement thereof, or if we do not have a quorum.

To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof at the direction of the Board of Directors.

If you owned our Common Stock or our Series A Convertible Senior Preferred Stock at the close of business on June 3, 2025, you may virtually attend and vote at the Annual Meeting. A list of stockholders eligible to vote at the Annual Meeting will be available for review during our ordinary business hours at our principal place of business in Skokie, Illinois for the ten days prior to the date of the Annual Meeting for any purpose germane to the Annual Meeting.

We are pleased to take advantage of the U.S. Securities and Exchange Commission rule that allows companies to furnish proxy materials to their stockholders over the Internet. On or about June 18, 2025, we will commence mailing a Notice of Internet Availability of Proxy Materials (the “Notice”) instead of a paper copy of this proxy statement and our Annual Report on Form 10-K for the year ended December 31, 2024 (“2024 Annual Report”). We believe that this process allows us to provide our stockholders with the information they need in a more timely manner, while reducing the environmental impact and lowering the costs of printing and distributing our proxy materials. The Notice contains instructions on how to access our proxy materials over the Internet, which are available at <https://www.cstproxy.com/lanzatech/2025>. The Notice also contains instructions on how to request a paper copy of our proxy materials, including this proxy statement and a form of proxy card.

**Your vote is important. Whether or not you plan to virtually attend the Annual Meeting, we urge you to vote as soon as possible. You may vote your shares over the Internet. If you received a**

proxy card or voting instruction card by mail, you may submit your proxy card by completing, signing and mailing your proxy card in the envelope provided or you may submit your voting instruction card by following the instructions therein. Any stockholder virtually attending the Annual Meeting may vote electronically at the Annual Meeting, even if you have already returned a proxy card or voting instruction card.

We thank you for your continued support of LanzaTech.

Yours sincerely,

/s/ Jennifer Holmgren

Jennifer Holmgren, Ph.D.  
*CEO and Chair of The LanzaTech Board of Directors*

/s/ Jim Messina

Jim Messina  
*Lead Independent Director*

June 18, 2025

Skokie, Illinois

**IMPORTANT NOTICE REGARDING INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING TO BE HELD ON MONDAY, JULY 28, 2025:** The 2024 Annual Report and proxy statement are available online at <https://www.cstproxy.com/lanzatech/2025>.

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## CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This proxy statement includes forward-looking statements regarding, among other things, the plans, strategies and prospects, both business and financial, of LanzaTech. These statements are based on the beliefs and assumptions of LanzaTech's management. Although LanzaTech believes that its plans, intentions and expectations reflected in or suggested by these forward-looking statements are reasonable, LanzaTech cannot assure you that it will achieve or realize these plans, intentions or expectations. Forward-looking statements are inherently subject to risks, uncertainties and assumptions. Generally, statements that are not historical facts, including statements concerning possible or assumed future actions, business strategies, events or results of operations, are forward-looking statements. These statements may be preceded by, followed by or include the words "believes," "estimates," "expects," "projects," "forecasts," "may," "will," "should," "seeks," "plans," "scheduled," "anticipates," "intends" or similar expressions. The forward-looking statements are based on projections prepared by, and are the responsibility of, LanzaTech's management. These forward-looking statements are not guarantees of future performance, conditions or results, and involve a number of known and unknown risks, uncertainties, assumptions and other important factors, many of which are outside LanzaTech's control, that could cause actual results or outcomes to differ materially from those discussed in the forward-looking statements, including those factors described under the header "Risk Factors" in LanzaTech's Annual Report on Form 10-K for the year ended December 31, 2024 and its Quarterly Report on Form 10-Q for the quarter ended March 31, 2025 filed by LanzaTech with the Securities and Exchange Commission (the "SEC"), its subsequent Quarterly Reports on Form 10-Q, its Current Reports on Form 8-K and in future filings with the SEC. New risk factors that may affect actual results or outcomes emerge from time to time and it is not possible to predict all such risk factors, nor can LanzaTech assess the impact of all such risk factors on its 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. Forward-looking statements are not guarantees of performance. You should not put undue reliance on these statements, which speak only as of the date hereof. All forward-looking statements attributable to LanzaTech or persons acting on its behalf are expressly qualified in their entirety by the foregoing cautionary statements. LanzaTech undertakes no obligations to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

**PROXY STATEMENT**

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**INFORMATION CONCERNING SOLICITATION AND VOTING**

The Board of Directors (the “Board”) of LanzaTech Global, Inc. (the “Company,” “we,” “us” or “our”) is soliciting proxies for the Company’s 2025 Annual Meeting of Stockholders (the “Annual Meeting”) to be held on Monday, July 28, 2025 at 2:00 p.m. Central Time, and any postponement, adjournment or recess thereof. The Annual Meeting will be held entirely online live via audio webcast. You will be able to attend the virtual Annual Meeting live, vote and submit your questions during the Annual Meeting via live webcast by visiting: <https://www.cstproxy.com/lanzatech/2025> and entering your 12-digit control number included in your Notice (as defined below), on your proxy card or on the instructions that accompanied your proxy materials.

On or about June 18, 2025, we will commence mailing a Notice of Internet Availability of Proxy Materials (the “Notice”). The Notice contains instructions on how to access this proxy statement and our 2024 Annual Report over the Internet, which are available at <https://www.cstproxy.com/lanzatech/2025>. The Notice also contains instructions on how to request a paper copy of our proxy materials, including this proxy statement, the 2024 Annual Report and a form of proxy card. The Notice is being sent to stockholders who owned our Common Stock and our Preferred Stock at the close of business on June 3, 2025, the record date for the Annual Meeting (the “Record Date”). This proxy statement contains important information for you to consider when deciding how to vote on the matters brought before the Annual Meeting. Please read it carefully.

**QUESTIONS AND ANSWERS ABOUT THE ANNUAL MEETING**

**Q: Who may vote at the Annual Meeting?**

**A:** The Board has fixed June 3, 2025 as the Record Date for the Annual Meeting. Only stockholders of record of our Common Stock and our Preferred Stock at the close of business on the Record Date will be entitled to notice of, and to vote at, the Annual Meeting. On the Record Date, there were 231,964,989 shares of Common Stock issued and outstanding and 20,000,000 shares of Preferred Stock issued and outstanding.

Each stockholder of record of Common Stock is entitled to one vote per share of Common Stock. As such, as of the Record Date, the holders of Common Stock were entitled to 231,964,989 votes based on their ownership of Common Stock.

Generally holders of the Preferred Stock are entitled to cast three votes for each share of Common Stock into which the shares of the Preferred Stock held by such Holder are convertible. Each share of Preferred Stock is convertible, in whole or in part, at the option of the holder, into one fully-paid and non-assessable share of Common Stock, subject to certain adjustments described in the Certificate of Designation governing the terms of the Preferred Stock (the “Certificate of Designation”). Such voting rights are currently capped as described in the Certificate of Designation unless and until the stockholders approve the Nasdaq Listing Rule Proposals (as defined below). As such, as of the Record Date, the holders of Preferred Stock (the “Preferred Stockholders”) held 20,000,000 shares of Preferred Stock and are entitled to

39,360,036 aggregate votes with respect to such shares. See “What voting cap is the Preferred Stock subject to?” below.

The Preferred Stockholders cannot vote on the Nasdaq Listing Rule Proposals in their capacity as such. In addition, as described herein, certain proposals require the separate vote of the holders of Common Stock (excluding, for these purposes, the holders of Preferred Stock in their capacity as such) and, for purposes of the second voting requirement for the Action by Written Consent Proposal (as defined below), to be conservative, we are taking the position that each share of Preferred Stock is only entitled to one vote per share of Common Stock underlying the Preferred Stock. See “What votes are required to elect directors and to approve the other proposals at the Annual Meeting?” below.

The Purchaser agreed in the Purchase Agreement to vote all shares of Common Stock held by it prior to May 7, 2025 in favor of the Requisite Stockholder Approvals or, if there are insufficient votes in favor of granting the Requisite Stockholder Approvals, in favor of the adjournment of this Annual Meeting to a later date. As of the Record Date, the Purchaser and its affiliates held 18.5% of our outstanding Common Stock (excluding the Common Stock underlying the Preferred Stock).

The Common Stock together with the Preferred Stock is referred to herein as “Voting Stock.” The Voting Stock votes together as a single class unless otherwise provided.

**Q: What proposals will be voted on at the Annual Meeting?**

**A:** There are ten proposals scheduled to be voted on at the Annual Meeting:

1. Election of the two Class II director nominees named herein to the Board to serve for a term expiring at the 2028 Annual Meeting of Stockholders (“Proposal 1”);
2. Ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025 (“Proposal 2”);
3. An advisory (non-binding) vote to approve the compensation of our named executive officers (“Proposal 3”);
4. An amendment to the Certificate of Incorporation to increase the number of authorized shares of Common Stock from 600,000,000 to 2,580,000,000 (which will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000) in order to provide a sufficient number of authorized shares to issue the Issuable Common Shares (“Proposal 4” or the “Increased Authorized Share Proposal”);
5. An amendment to the Certificate of Incorporation to (a) effect a reverse stock split of the Common Stock, at a ratio of 100-for-1 (the “Reverse Stock Split Proposal”) and (b) if the Increased Authorized Share Proposal and Reverse Stock Split Proposal are implemented, proportionately decrease the authorized number of shares of Common Stock, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company (the “Decreased Authorized Share Proposal” and together with the Reverse Stock Split Proposal, the “Split-Related Proposals” or “Proposal 5”);
6. An amendment to the Certificate of Incorporation to permit stockholders to act by written consent (“Proposal 6” or the “Action by Written Consent Proposal”);
7. An amendment to the Certificate of Incorporation to decrease the par value of the Common Stock from \$0.0001 to \$0.0000001 per share (“Proposal 7” or the “Par Value Proposal” and together with the Increased Authorized Share Proposal and the Action by Written Consent Proposal, the “First Charter Amendment Proposals”);

8. Approval, for purposes of Nasdaq Listing Rule 5635(b), of any “change of control” resulting from the issuance of shares of Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which Preferred Stock was issued (and the Warrant and any shares issued in a Financing are expected to be issued) in a private placement (“Proposal 8” or the “Nasdaq Listing Rule 5635(b) Proposal”);
9. Approval, for purposes of Nasdaq Listing Rule 5635(d), of the Company’s ability to issue shares of Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which Preferred Stock was issued (and the Warrant and any shares issued in a Financing are expected to be issued) in a private placement, which shares, independently or when aggregated, would exceed 19.9% of the number of outstanding shares of Common Stock prior to such transactions (“Proposal 9” or the “Nasdaq Listing Rule 5635(d) Proposal” and together with the Nasdaq Listing Rule 5635(b) Proposal, the “Nasdaq Listing Rule Proposals”); and
10. Approval of one or more adjournments of the Annual Meeting to a later date or dates, if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve the preceding proposals at the time of the Annual Meeting or any adjournment or postponement thereof, or in the absence of a quorum. This would authorize the Company to adjourn the Annual Meeting to solicit votes on the approval of any or all of the above proposals (“Proposal 10” or the “Adjournment Proposal”).

We refer to Proposals 1 through 10 as the “Proposals” and we refer to the Adjournment Proposal, the First Charter Amendment Proposals, the Split-Related Proposals and the Nasdaq Listing Rule Proposals as the “Special Proposals.”

We will also consider any other business that properly comes before the Annual Meeting at the direction of the Board of Directors. As of the date hereof, we are not aware of any other matters to be submitted for consideration at the Annual Meeting. If any other matters are properly brought before the Annual Meeting at the direction of the Board of Directors, the persons named on the proxy card or voter instruction card will vote the shares they represent using their best judgment.

**Q: What is the quorum requirement for the Annual Meeting?**

**A:** A quorum of stockholders is necessary to hold a valid meeting of stockholders. A quorum will be present if at least a majority of the voting power of our outstanding shares of Voting Stock (or, as it relates to proposals requiring a majority in voting power of the Common Stock voting as a separate class, a majority of the voting power of our outstanding shares of Common Stock) are represented in person, including by means of remote communication, or by proxy at the Annual Meeting. At the close of business on the Record Date, there were 231,964,989 shares of Common Stock outstanding and 20,000,000 shares of Preferred Stock outstanding entitled to 39,360,036 votes (due to the voting cap described in the Certificate of Designation). Thus, a total of 271,325,025 votes are entitled to be cast at the Annual Meeting, and holders of Voting Stock representing at least 135,662,513 votes must be represented at the Annual Meeting in person, including by means of remote communication, or by proxy to have a quorum. The inspector of elections appointed for the Annual Meeting by the Board will count the shares represented in person, including by means of remote communication, or by proxy at the Annual Meeting to determine whether or not a quorum is present.

Your shares will be counted as present at the Annual Meeting if you:

- are present and entitled to vote electronically at the Annual Meeting; or

- have voted over the Internet, or properly submitted a proxy card or voting instruction card.

Both abstentions and broker non-votes (as described below) will be included in the calculation of the number of shares considered to be present at the Annual Meeting for the purpose of determining the presence of a quorum. In the event that we are unable to obtain a quorum, the chairperson of the Annual Meeting or stockholders, by the vote of a majority of the votes cast by the stockholders present in person or represented by proxy at the meeting and entitled to vote thereon may adjourn the Annual Meeting to another date.

**Q: How are votes counted at the Annual Meeting?**

**A:** In the election of Class II director nominees named herein (Proposal 1), you may vote “FOR” all of the nominees or your vote may be “WITHHELD” with respect to one or more of the nominees. For Proposals 2 – 10, you may vote “FOR,” “AGAINST” or “ABSTAIN.”

An independent inspector of election will count the votes at the Annual Meeting.

**Q: What votes are required to elect directors and to approve the other proposals at the Annual Meeting?**

**A:** For Proposal 1, the election of Class II director nominees named herein, members of the Board are elected by a plurality of the votes cast by the holders of our Voting Stock, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “What voting cap is the Preferred Stock subject to?”)). Accordingly, the two candidates who receive the greatest number of votes “FOR” will be elected as a director. “WITHHOLD” votes and broker non-votes will have no effect on the outcome of this proposal. Cumulative voting is not permitted for the election of directors.

Proposal 2, the ratification of our independent registered public accounting firm, requires the affirmative vote of a majority of the votes cast by the holders of our Voting Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation). Broker non-votes are not expected for this proposal because it is a routine matter. Abstentions and any broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

Proposal 3, the advisory vote on the compensation of our named executive officers, requires the affirmative vote of a majority of the votes cast by the holders of our Voting Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation). Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

Proposal 4, approval of the Increased Authorized Share Proposal, requires that the votes cast “for” the Increased Authorized Share Proposal exceed the votes cast “against” the Increased Authorized Share Proposal by (i) the holders of our Voting Stock entitled to vote thereon (with Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (ii) the holders of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). You may vote FOR or AGAINST this proposal, or you

may indicate that you wish to ABSTAIN from voting on this proposal. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

Proposal 5, approval of the Split-Related Proposals, requires that the votes cast “for” the Split-Related Proposals exceed the votes cast “against” the Split-Related Proposals by (i) the holders of our Voting Stock entitled to vote thereon (with Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (ii) the holders of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). You may vote FOR or AGAINST this proposal, or you may indicate that you wish to ABSTAIN from voting on this proposal. Broker non-votes are not expected for this proposal because it is a routine matter. Abstentions and any broker non-votes are not considered votes cast and will have no effect on the Split-Related Proposals.

Proposal 6, approval of the Action by Written Consent Proposal, requires the affirmative vote of the holders of (1) a majority in voting power of the outstanding shares of our Voting Stock entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (2) at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of our Voting Stock entitled to vote thereon, voting together as a single class. For purposes of this second voting requirement for the Action by Written Consent Proposal only, to be conservative, we are taking the position that each stockholder of record of Preferred Stock is entitled to cast one vote per share of Preferred Stock. Abstentions and broker non-votes will have the same effect as a vote “AGAINST” the Action by Written Consent Proposal.

Proposal 7, approval of the Par Value Proposal, requires the affirmative vote of the holders of (1) a majority in voting power of the outstanding shares of our Voting Stock entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (2) a majority in voting power of the outstanding shares of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). You may vote FOR or AGAINST this proposal, or you may indicate that you wish to ABSTAIN from voting on this proposal. Abstentions and broker non-votes will have the same effect as a vote “AGAINST” the Par Value Proposal.

Proposal 8, approval of the Nasdaq Listing Rule 5635(b) Proposal, requires the affirmative vote of a majority of the votes cast. The Preferred Stockholders cannot vote on the Nasdaq Listing Rule 5635(b) Proposal in their capacity as such. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

Proposal 9, approval of the Nasdaq Listing Rule 5635(d) Proposal, requires the affirmative vote of a majority of the votes cast. The Preferred Stockholders cannot vote on the Nasdaq Listing Rule 5635(d) Proposal in their capacity as such. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

Proposal 10, approval of the Adjournment Proposal, requires the affirmative vote of a majority of the voting power of the shares of Voting Stock present, including by means of remote communication, or represented by proxy and entitled to vote on the Adjournment Proposal. Abstentions will have the same effect as a vote “AGAINST” the Adjournment Proposal. Broker non-votes will have no effect on the vote for the Adjournment Proposal.

**Q: What voting cap is the Preferred Stock subject to?**

**A:** The 20,000,000 shares of Series A Preferred Stock are entitled to an aggregate of 60,000,000 votes. However, under the Certificate of Designation, prior to approval of the Nasdaq Listing Rule Proposals, the voting power of the Series A Preferred Stock may not exceed, in the aggregate, the voting power of 39,360,036 shares of Common Stock (as such amount may be proportionately adjusted in certain events, including the Reverse Stock Split), which equates to 19.9% of our outstanding shares of Common Stock as of May 7, 2025. If the stockholders approve the Nasdaq Listing Rule Proposals, pursuant to the terms of the Certificate of Designation, this voting cap will fall away and the 20,000,000 shares of Series A Preferred Stock will be entitled to an aggregate of 60,000,000 votes. See “Proposal 8—The NASDAQ Listing Rule 5635(b) Proposal—Potential Effects of the NASDAQ Listing Rule Proposals.”

**Q: Which ballot measures are considered “routine” or “non-routine”?**

**A:** If your shares are held in street name and you do not provide your voting instructions to your broker, bank or other nominee, your shares may be voted without your instructions by your broker, bank or other nominee but only under certain circumstances. Specifically, under applicable rules, shares held in the name of your broker, bank or other nominee may be voted by your broker, bank or other nominee on certain “routine” matters if you do not provide voting instructions. Only two proposals are considered “routine” matters for which brokers, banks or other nominees may vote uninstructed shares: (i) Proposal 2, regarding the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025 and (ii) Proposal 5, regarding the Split-Related Proposals. Consequently, no broker non-votes are expected in connection with Proposal 2 and Proposal 5.

Proposals 1, 3, 4 and 6–10 are generally considered “non-routine matters” under applicable rules, meaning a broker, bank or other nominee cannot vote without your instructions on such non-routine matters. If you do not provide voting instructions on a non-routine matter, your shares will not be voted on that matter, which is referred to as a “broker non-vote.” Therefore, it is critical that you indicate your vote on those proposals if you want your vote to be counted.

**Q: What are the recommendations of the Board?**

**A:** The Board recommends that you vote as follows:

- “**FOR**” each of the Class II director nominees named herein to the Board (Proposal 1);
- “**FOR**” the ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025 (Proposal 2);
- “**FOR**” the advisory vote to approve the compensation of our named executive officers (Proposal 3);
- “**FOR**” the Increased Authorized Share Proposal (Proposal 4);
- “**FOR**” the Split-Related Proposals (Proposal 5);
- “**FOR**” the Action by Written Consent Proposal (Proposal 6);
- “**FOR**” the Par Value Proposal (Proposal 7);
- “**FOR**” the Nasdaq Listing Rule 5635(b) Proposal (Proposal 8);
- “**FOR**” Nasdaq Listing Rule 5635(d) Proposal (Proposal 9); and
- “**FOR**” the Adjournment Proposal (Proposal 10).

**Q: What does it mean if I receive more than one set of proxy materials?**

**A:** If you received more than one Notice (or full set of printed proxy materials), each containing a different control number, this means that you have multiple accounts holding shares of our capital stock. These may include accounts with our transfer agent, Continental Stock Transfer & Trust Company ("CST"), and accounts with a broker, bank or other holder of record. Please vote all proxy cards for which you receive a Notice (or full set of printed proxy materials) to ensure that all of your shares are voted.

**Q: How can I get electronic access to the proxy materials?**

**A:** You will be able to view the proxy materials on the Internet at <https://www.cstproxy.com/lanzatech/2025>.

**Q: How may I attend and vote my shares at the Annual Meeting?**

**A:** This year's Annual Meeting will be held entirely online live via audio webcast. We have designed the virtual Annual Meeting to provide stockholders with substantially the same opportunities to participate as if the Annual Meeting were held in person. Any stockholder can attend the Annual Meeting live online at [www.cstproxy.com/lanzatech/2025](http://www.cstproxy.com/lanzatech/2025). If your shares are registered directly in your name with our transfer agent, CST, you are considered, with respect to those shares, the stockholder of record. If you were a stockholder as of the record date for the Annual Meeting and you have your 12-digit control number included in your Notice, on your proxy card or on the instructions that accompanied your proxy materials, you can vote at the Annual Meeting.

A summary of the information you need to attend the Annual Meeting online is provided below:

- To attend and participate in the Annual Meeting, you will need the 12-digit control number included in your Notice, on your proxy card or on the instructions that accompanied your proxy materials.
- The Annual Meeting webcast will begin promptly at 2:00 p.m. Central Time. We encourage you to access the Annual Meeting at least 15 minutes prior to the start time.
- The virtual meeting platform is fully supported across browsers (Edge, Chrome, and Safari) and devices (desktops, laptops, tablets, and cell phones) running the most updated version of applicable software and plugins. Participants should ensure that they have a strong Internet connection wherever they intend to participate in the Annual Meeting. Participants should also give themselves at least 15 minutes to log in and ensure that they can hear streaming audio prior to the start of the Annual Meeting.
- Instructions on how to attend and participate via the Internet are posted at [www.cstproxy.com/lanzatech/2025](http://www.cstproxy.com/lanzatech/2025).
- Assistance with questions regarding how to attend and participate via the Internet will be provided via CST's toll-free telephone support number at (917) 262-2373.
- If you want to submit a question during the Annual Meeting, log into the virtual meeting platform at [www.cstproxy.com/lanzatech/2025](http://www.cstproxy.com/lanzatech/2025) and follow the instructions for submitting a question.
- Questions pertinent to Annual Meeting matters may be answered during the Annual Meeting or after the Annual Meeting by direct communication with the stockholder. Questions regarding personal or other improper matters, including those related to employment, product

or service issues, or suggestions for business opportunities, are not pertinent to Annual Meeting matters and therefore will not be answered.

- If your shares are held in an account at a brokerage firm, bank, dealer or other similar organization, you are considered the beneficial owner of shares held in “street name.” If your shares are held in “street name,” in order to be able to vote during the Annual Meeting, you should contact your broker, trustee, bank or other holder of record to obtain a legal proxy and e-mail a copy (a legible PDF or other photographic copy is sufficient) to proxy@continentalstock.com by 2:00 p.m., Central Time, on Friday, July 25, 2025. CST will issue a control number and email it back with the meeting information. Only stockholders with a valid 12-digit control number will be able to vote during the Annual Meeting.

**Q: What if during the check-in time or during the Annual Meeting I have technical difficulties or trouble accessing the virtual meeting website?**

**A:** CST will have technicians ready to assist you with any technical difficulties you may have accessing the virtual meeting website. If you encounter any difficulties accessing the virtual meeting website during the check-in or meeting time, please call the CST technical support number that will be posted on the Annual Meeting login page, which is (917) 262-2373.

**Q: How can I vote my shares without attending the Annual Meeting?**

**A:** Whether you hold shares directly as a stockholder of record or beneficially in street name, you may vote without attending the Annual Meeting. You may vote by granting a proxy or, for shares held beneficially in street name, by submitting voting instructions to your broker, bank or other agent. In most cases, you will be able to do this by using the Internet or by mail if you received a printed set of the proxy materials.

**By Internet** - If you have Internet access, you may vote your shares by logging into the secure website, which will be listed on your Notice or the proxy card, and following the instructions provided.

**By Mail** - If you requested printed copies of the proxy materials, you may submit your proxy by mail by signing your proxy card if your shares are registered or, for shares held beneficially in street name, by following the voting instructions included by your broker, bank or other agent, and mailing it in accordance with the instructions provided. If you provide specific voting instructions, your shares will be voted as you have instructed.

Votes submitted via the Internet must be received by 11:59 p.m. Eastern Daylight Time on July 27, 2025. Submitting your proxy via the Internet or by mail will not affect your right to vote electronically at the Annual Meeting should you later decide to virtually attend the Annual Meeting. **Even if you plan to virtually attend the Annual Meeting, we encourage you to submit your proxy to vote your shares in advance of the Annual Meeting.**

We provide Internet proxy voting with procedures designed to ensure the authenticity and correctness of your proxy vote instructions.

**Q: What happens if I do not give specific voting instructions?**

**A:** *Stockholder of Record* - If, at the close of business on the Record Date, you are a stockholder of record and you indicate when voting on the Internet that you wish to vote as recommended by the Board, or sign and return a proxy card without giving specific voting instructions, then the proxy holders will vote your shares in the manner recommended by the Board on all matters presented in this proxy statement and as the proxy holders may determine in their discretion with respect to any other matters properly presented for a vote at the Annual Meeting.

*Beneficial Owners of Shares Held in Street Name* – If, at the close of business on the Record Date, you are a beneficial owner of shares held in street name and do not provide the organization that holds your shares with specific voting instructions, the organization that holds your shares may generally vote at its discretion on routine matters but cannot vote on non-routine matters. If the organization that holds your shares does not receive instructions from you on how to vote your shares on a non-routine matter, the organization will inform the inspector of election that it does not have the authority to vote on this matter with respect to your shares. This is generally referred to as a “broker non-vote.” Broker non-votes will be included in the calculation of the number of votes considered to be present for the purpose of determining a quorum, but will not be counted in determining the number of votes cast on “non-routine” matters for which brokers may not exercise discretionary voting authority. See “Which ballot measures are considered “routine” or “non-routine”?” above.

**Q: What is the effect of the Special Proposals on our stockholders?**

**A:** If stockholders approve the Special Proposals (as such term is defined under “What proposals will be voted on at the Annual Meeting?” above) in this proxy statement, the economic and voting interests of each of our existing stockholders will be diluted, to the extent additional authorized shares are issued, including upon any conversion of the Preferred Stock and upon the issuance of the Warrant Shares and any shares issued in a Financing. For additional information, please see “Proposal 4—The Increased Authorized Share Proposal—Certain Risks and Considerations Associated with the Increased Authorized Share Amendment.” Because we will make an adjustment to the number of authorized shares corresponding to the ratio applied to the Reverse Stock Split, the Reverse Stock Split will not result in further dilution to existing stockholders. In addition, each holder of Preferred Stock is entitled to cast three votes per each share of Common Stock into which the Preferred Stock are convertible. Such voting rights are currently capped in the Certificate of Designation. If the stockholders approve the Nasdaq Listing Rule Proposals, the voting cap relating thereto would fall away pursuant to the terms of the Certificate of Designation and the voting power of the existing holders of Common Stock will decrease. For additional information, please see “Proposal 8—The Nasdaq Listing Rule 5635(b) Proposal—Potential Effects of the Nasdaq Listing Rule Proposals.”

**Q: What happens if the Requisite Stockholder Approvals are not obtained?**

**A:** Under the Purchase Agreement, we are obligated to seek the Requisite Stockholder Approvals.

If the Requisite Stockholder Approvals are not obtained, the Conditions to Exercise under the Warrant will not be satisfied and the Purchaser will not be able to exercise its Warrant. In addition, if the Requisite Stockholder Approvals are not obtained, we may be unable to consummate a Financing as contemplated herein, greatly limiting our ability to raise necessary capital.

Furthermore, failure to have a sufficient number of shares of Common Stock duly authorized for the exercise of the Warrant and the consummation of the Subsequent Financing after this stockholder meeting constitutes a Mandatory Redemption event under the Preferred Stock. We can provide no assurance that we would have sufficient liquidity to make this payment.

For additional information on the Preferred Stock, the Warrant and a Financing, please see “Proposal 4—The Increased Authorized Share Proposal—Background.”

**Q: How can I revoke my proxy and change my vote after I return my proxy card?**

**A:** You may revoke your proxy and change your vote before the final vote at the Annual Meeting. If you are a stockholder of record, you may do this: (i) by voting using the Internet, which must be completed by 11:59 p.m. Eastern Daylight Time on July 27, 2025 (your latest Internet proxy will be counted); (ii) delivering a properly executed proxy card bearing a later date than the proxy that you wish to revoke; or (iii) by virtually attending the Annual Meeting and voting electronically. Virtually attending the Annual Meeting alone will not revoke your proxy unless you specifically request your proxy to be revoked. If you hold shares through a broker, bank or other agent, you must contact that broker, bank or other agent directly to revoke any prior voting instructions.

**Q: Who will pay the costs of this proxy solicitation?**

**A:** We will bear the entire cost of solicitation of proxies, including maintenance of the Internet website used to access the proxy materials and to vote; and preparation, assembly, printing and mailing of this proxy statement, the proxy card and any additional information furnished to our stockholders who request paper copies of such materials. We and our directors, officers and regular employees may solicit proxies by mail, personally, by telephone or by other appropriate means. No additional compensation will be paid to directors, officers or other regular employees for such services. Copies of solicitation materials will be furnished to banks, brokerage houses, fiduciaries and custodians holding shares of our Voting Stock in their names for others to send proxy materials to and obtain proxies from the beneficial owners of such shares, and we may reimburse them for their costs in forwarding the solicitation materials to such beneficial owners.

**Q: Why hold a virtual Annual Meeting?**

**A:** We believe that hosting a virtual Annual Meeting is in the best interest of the Company and its stockholders. We believe a virtual Annual Meeting enables increased stockholder attendance and participation because stockholders can participate from any location around the world while reducing the carbon footprint that would be required for stockholders to travel to and attend an in-person meeting.

**Q: Where can I find the voting results of the Annual Meeting?**

**A:** The preliminary voting results will be announced at the Annual Meeting. The final voting results will be reported in a Current Report on Form 8-K, which will be filed with the U.S. Securities and Exchange Commission ("SEC") within four business days after the Annual Meeting.

## PROPOSAL 1

### ELECTION OF CLASS II DIRECTORS

#### Overview

Our Board currently consists of nine directors and is generally divided into three classes, designated Class I, Class II and Class III. Each class consists, as nearly as possible, of one-third of the total number of directors constituting the entire Board and each class has a three-year term. At each annual meeting of stockholders, the successors to directors whose terms then expire will be elected to serve from the time of election and qualification until the third annual meeting following election.

In addition, for so long as the Preferred Stock remains outstanding, the holders of the Preferred Stock are entitled to elect, voting together as a separate class and on an as-converted to Common Stock basis, one director on the Board (the "Series A Director") and to fill any vacancies with respect to the Series A Director. The Series A Director will not be included in any class. As of the date of this proxy statement, the holders of the Preferred Stock had not exercised their right to elect the Series A Director and no Series A Director is being proposed for election at this Annual Meeting.

Our Certificate of Incorporation provides that, other than with respect to the Series A Director, the authorized number of directors may be changed only by resolution of the Board. Other than with respect to the Series A Director, directors may be removed only for cause by the affirmative vote of the holders of at least sixty-six and two-thirds percent (66 2/3%) of the votes that all our stockholders would be entitled to vote generally in an election of directors voting together as a single class. Other than with respect to the Series A Director, any vacancy on the Board, including a vacancy resulting from an enlargement of the Board, may be filled only by vote of a majority of our directors then in office, even if less than a quorum. Each director so chosen shall hold office until the next election of the class for which such director shall have been chosen and until his or her successor shall have been duly elected and qualified.

At this Annual Meeting, the term of our current Class II directors, Barbara Byrne, Reyad Fezzani and Gary Rieschel, will expire. Mr. Rieschel will not seek re-election and will step down from our Board at the conclusion of the Annual Meeting. We wish to thank Mr. Rieschel for his service to the Board and the Company.

Our stockholders will vote for the Class II director nominees listed below to serve until our 2028 Annual Meeting of Stockholders and until such director's successor has been elected and qualified, or until such director's earlier death, resignation or removal. The members of the Board who are Class III and Class I directors will be considered for nomination for election in 2026 and 2027, respectively.

The following table sets forth certain information about our directors as of the date of this proxy statement, with the exception of Mr. Rieschel, who will not seek re-election and will step down from our Board at the conclusion of our Annual Meeting:

Name	Age	Position(s)
Jennifer Holmgren, Ph.D.	64	Chief Executive Officer and Director
Jim Messina	55	Lead Independent Director
Barbara Byrne	70	Director
Reyad Fezzani	58	Director
Jill Frizzley	49	Director
Nigel Gormly	51	Director
Dorri McWhorter	51	Director
Thierry Pilenko	67	Director

#### Nominees for Election as Class II Directors with Terms Expiring in 2028

The nominees listed below have been recommended by the Nominating and Governance Committee to be elected to serve as Class II directors. There are no family relationships among our directors, executive officers or director nominees. If any director nominee is unable or declines to serve as a director, the Board may designate another nominee to fill the vacancy and the proxy will be voted for that nominee.

**Barbara Byrne** has served as a director of LanzaTech since 2023. Ms. Byrne is the former Vice Chairman, Investment Banking at Barclays PLC, where she worked until 2018. During her more than 35 years of financial services experience, Ms. Byrne served as team leader for some of Barclays' most important multinational corporate clients and was the primary architect of several of Barclays' marquee transactions. She is a member of various industry councils and participates as a forum leader on strategic issues and trends facing the financial services sector and global markets. Ms. Byrne has served as a director of Paramount Global since 2018, and as a director of Carta, and holds a B.A. in Economics from Mount Holyoke College.

We believe that Ms. Byrne is qualified to serve as a director based on her extensive experience in the investment banking industry and her business and financial expertise.

**Reyad Fezzani** was appointed as a director of LanzaTech in January 2025. He has over 35 years of experience as a global business executive, and a passion for renewable energy sustainability, technology investing, and serving as a board member and advisor to early-stage and growth companies. He also currently serves as a Director of Carbon Collect Limited and Carbon Collect, Inc., a direct air carbon capture company, and Chairman and CEO of Regenerate Power, a company he co-founded as a developer and owner of utility-scale renewable energy projects, and Chairman & Managing Partner of Energy Finance Company LLC, a company specializing in distributed generation energy projects, and an owner and operator of generation assets.

Mr. Fezzani was formerly an employee of BP plc, where he served 23 years as Chief Executive of BP Solar, and Chairman of Tata-BP Solar, and prior to that led BP's renewable business Global Wind and Solar based in California which operated solar manufacturing plants in the US, Spain, India, China, and Australia, and developed, constructed, and operated Solar and Wind farms in the US, Europe, India, and China. Prior to that, he was CEO of BP's Global Chemicals business, operating in Asia, with manufacturing sites in China, Taiwan, Korea, Indonesia, and Malaysia, as well as the Americas, and Europe. The business manufactured feedstocks used in textiles, plastics, paints, and adhesives industries. Born in Libya and educated in the UK, he holds a master's degree in chemical engineering from Imperial College, London, and is a Chartered Engineer, and a Fellow of the ICHIME, the Energy Institute and Institute of Materials, Minerals, and Mining.

We believe that Mr. Fezzani is qualified to serve as a director based on his industry experience as a chief executive officer, experience in sustainable project management and technical expertise in finance and renewable energy production.

### Vote Required

The affirmative vote of a plurality of the voting power of the outstanding shares of the Voting Stock entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?”)) is required to elect Ms. Byrne and Mr. Fezzani as Class II directors to serve until the 2028 Annual Meeting of Stockholders. A “plurality” means, with regard to the election of directors, that the two nominees for director receiving the greatest number of “FOR” votes from the votes cast at the Annual Meeting will be elected. Abstentions and broker non-votes will have no effect on the outcome of this proposal.

### Recommendation of the Board

**THE BOARD RECOMMENDS A VOTE  
“FOR” THE ELECTION OF EACH CLASS II DIRECTOR NOMINEE (PROPOSAL ONE)**

### Incumbent Class I Directors with Terms Expiring in 2027

**Nigel Gormly** has served as a director of LanzaTech since 2014. He is currently the Director of Programs at the Centre for Sustainable Finance: Toitū Tahua, a New Zealand non-governmental organization, where he leads initiatives aimed at mobilizing and directing capital to support sustainable growth and intergenerational prosperity. Before taking up his current role in August 2024, Mr. Gormly served from 2020 as Chief Investment Officer of Toha Foundry, a fin-tech company creating a global marketplace with climate and environmental impact at its heart to enable the true value of impact to be recognized and traded in the market, enabling impact investment to be unleashed at scale. From 2013 to 2019, Mr. Gormly served as Head of International Direct Investment at the New Zealand Superannuation Fund, New Zealand’s sovereign wealth fund, where he was primarily responsible for the fund’s direct investments in energy, infrastructure and expansion capital as well as leading the fund’s collaboration efforts with global investment partners. Prior to joining the Superannuation Fund, Mr. Gormly spent a decade with Fonterra, a New Zealand dairy co-operative, where he held several senior roles in strategic development and commercial leadership, most recently as General Manager, Commercial Ventures. Mr. Gormly’s early career was focused on M&A and corporate finance advisory based in London, with assignments throughout Asia, Latin America and Europe. He has broad governance experience, having served on the boards of companies across multiple sectors and at different stages of development. A Chartered Financial Analyst, Mr. Gormly holds a Graduate Diploma in Finance, and a B.Sc. and a B.Com. from the University of Auckland.

We believe that Mr. Gormly is qualified to serve as a director based on his extensive experience in the venture capital and investment banking industries. Mr. Gormly was originally nominated as a director by New Zealand Superannuation Fund, a stockholder of the Company.

**Jennifer Holmgren, Ph.D.** has served as our Chief Executive Officer and Chair of our Board since 2010. Previously, she served as Vice President and General Manager of the Renewable Energy and Chemicals business unit at UOP LLC, a Honeywell Company, where she held various commercial and technical leadership positions from 1987 to 2010. Dr. Holmgren has authored or co-authored 50 U.S. patents and more than 30 scientific publications and is a member of the National Academy of Engineering. In 2023, she was named in the Time Magazine Climate 100 list of Most Influential Leaders. Dr. Holmgren also sits on the board of directors of the U.S.-India Strategic Partnership Forum, the Advisory Council for the

Andlinger Center for Energy and the Environment at Princeton University, the National Academies' Board on Energy and Environmental Systems, the Advisory Council for the Pacific Northwest National Laboratory, the Halliburton Labs Advisory Board, the Universiti Teknologi PETRONAS International Advisory Council, and the Founder Advisory for The Engine, a venture capital fund built by MIT that invests in early-stage science and engineering companies. Dr. Holmgren holds a B.Sc. degree from Harvey Mudd College, a Ph.D. from the University of Illinois at Urbana-Champaign, an MBA from the University of Chicago, and an Honorary Doctorate from the Delft University of Technology.

We believe that Dr. Holmgren is qualified to serve as a director based on her extensive industry experience and her status as an internationally recognized expert in the development and commercialization of fuels and chemical technologies in the energy sector.

**Thierry Pilenko** was appointed to the Board effective January 2025. He has more than 40 years of technology and leadership experience in the energy sector and is currently an advisor to several energy and technology companies. From 2017 to 2019 he was the Executive Chairman of TechnipFMC plc, a project management and equipment company resulting from the merger of Technip and FMC Technologies. Prior to this, Mr. Pilenko was Chairman and Chief Executive Officer of Technip, a world leader in engineering, technologies and project management for the oil and gas industry. Before joining Technip in 2007, Mr. Pilenko was Chairman and Chief Executive Officer of Veritas DGC, a seismic services company based in Houston. Prior to this appointment, Mr. Pilenko held various management and executive positions with Schlumberger, a global multinational oilfield services company, where he started in 1984 as a Geologist. He held several international positions in Europe, Africa, the Middle East, and Asia before becoming President of Schlumberger-GeoQuest in Houston and subsequently Managing Director of SchlumbergerSema in Paris until 2004.

Mr. Pilenko currently serves as a Non-Executive Director on the boards of Arkema SA, Trident Energy and Rely Solutions. Previously Mr. Pilenko was a Director of Veritas DGC, CGGVeritas, Technip SA, Peugeot SA, Hercules Offshore, Valaris, TechnipFMC and Ensign Natural Resources. He is the founder of Pil & Co LLC, a consulting firm in strategy and leadership and the co-founder of P6 Technologies, a software platform for carbon lifecycle analysis. Mr. Pilenko holds Engineering degrees from France's Nancy School of Geology (1981) and the IFP School (1982).

We believe that Mr. Pilenko is qualified to serve as a director based on his industry experience as a chief executive officer, experience in international project management and technical expertise in engineering.

#### **Incumbent Class III Directors with Terms Expiring in 2026**

**Jill Frizzley** was appointed to the Board in March 2025. She currently serves as the president of Wildrose Partners LLC, an independent consulting company providing governance and related advisory services to six corporations, a position she has held since June 2019. From 2016 through May 2019, Ms. Frizzley served as Counsel at the law firm of Weil, Gotshal & Manges LLP. Ms. Frizzley has served as a director on numerous public and private boards of directors, advising across corporate governance, transactions, and other solutions in transformative moments for companies. Currently, Ms. Frizzley is serving as a director for Akoustis Technologies Inc., since August 2024. She previously served on the boards of directors for the following public companies in the last five years: Proterra Inc., iMedia Brands, Inc., Invitae Corporation, Virgin Orbit Holdings, Inc., Surgalign Holdings, Inc., Avaya Holdings Corporation, Hudson Technologies, Inc. and Vivus, Inc. Ms. Frizzley holds a BSc degree from the University of Alberta and an LLB degree from the University of Toronto Faculty of Law.

We believe Ms. Frizzley is qualified to serve as a director based on her extensive experience in transformative and strategic solutions for companies.

**Dorri McWhorter** has served as a director of LanzaTech since 2023. Ms. McWhorter served as the President and Chief Executive Officer of YMCA of Metropolitan Chicago from 2021 to 2025 and served as the Chief Executive Officer of YWCA Metropolitan Chicago from 2013 to 2021. Prior to joining the YWCA, she was a partner at Crowe, LLP, and also held senior positions with Snap-on Incorporated and Booz

Allen Hamilton. Ms. McWhorter is a former licensed certified public accountant and currently sits on the Financial Accounting Standards Advisory Council. Ms. McWhorter has served as a director of Lifeway Foods, Inc. since 2020, and also serves on the boards of William Blair Funds, NexPoint Capital and Skyway Concession Company. Ms. McWhorter holds a Bachelor of Business Administration degree from the University of Wisconsin-Madison, an MBA from Northwestern University's Kellogg School of Management, and an honorary Doctor of Humane Letters from Lake Forest College.

We believe that Ms. McWhorter is qualified to serve as a director based on her experience as a chief executive officer and her business and financial expertise.

**Jim Messina** has served as a director of LanzaTech since 2013. Mr. Messina has served as the CEO of The Messina Group, a strategic consulting firm specializing in advising political leaders, corporations, and advocacy organizations, since 2013. Previously, Mr. Messina served as White House Deputy Chief of Staff to President Barack Obama from 2009 to 2011 and was Campaign Manager for President Obama's 2012 re-election campaign. Previously, Mr. Messina served as Chief of Staff for various Senate and House offices on Capitol Hill. Mr. Messina serves on the boards of several private companies including Global Counsel, Blockchain.com, Fortera, Vectra.ai, the United States Soccer Foundation, and the Montana Land Reliance. Mr. Messina is a graduate of the University of Montana where he earned a B.A. in political science and journalism.

We believe that Mr. Messina is qualified to serve as a director based on his corporate advisory expertise and his extensive experience in executive management.

## PROPOSAL 2

### RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025 and urges you to vote for the ratification of Deloitte & Touche LLP's appointment. Deloitte & Touche LLP has served as our independent registered public accounting firm since the fiscal year ended December 31, 2016. Stockholder ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm is not required by our Certificate of Incorporation, our Amended and Restated Bylaws ("Bylaws") or otherwise. However, the Board is submitting the appointment of Deloitte & Touche LLP to the stockholders for ratification as a matter of good corporate governance. If the stockholders do not ratify the selection, the Board and the Audit Committee will reconsider whether or not to retain Deloitte & Touche LLP. Even if the selection is ratified, the Board and the Audit Committee may, in their discretion, direct the appointment of a different independent registered public accounting firm at any time during the year if they determine that such a change would be in the best interests of our Company and our stockholders.

We expect representatives of Deloitte & Touche LLP to virtually attend the Annual Meeting and be available to respond to appropriate questions by stockholders. Additionally, the representatives of Deloitte & Touche LLP will have the opportunity to make a statement if they so desire.

#### Principal Accountant Fees and Services

The following table presents the aggregate fees billed or accrued for professional services rendered by Deloitte & Touche LLP during the last two fiscal years:

Type	2024	2023
Audit Fees	\$ 2,203,592	\$ 2,409,666
Audit-Related Fees	–	–
Tax Fees	–	–
All Other Fees	–	68,805
Total Fees	\$ 2,203,592	\$ 2,478,471

**Audit Fees** - These fees are associated with professional services rendered for the audit of our consolidated financial statements, audit of the Company's internal controls over financial reporting in 2024 and 2023, reviews of our quarterly financial statements, and services that are normally provided by the independent auditor in connection with statutory and regulatory filings made by the Company.

**All Other Fees** – These fees are associated with a preliminary gap assessment of the Company's internal controls over financial reporting.

#### Audit Committee's Pre-Approval Policies and Procedures

Before our independent registered public accounting firm is engaged by us to render audit or non-audit services, each such engagement is approved by our Audit Committee. From time to time, our Audit Committee may pre-approve specified types of services that are expected to be provided to us by our registered public accounting firm during the next 12 months. Any such pre-approval is detailed as to the particular service or type of services to be provided and is also generally subject to a maximum dollar amount. The Audit Committee pre-approved all services performed by, and fees paid to, our independent registered public accounting firm during fiscal years 2024 and 2023.

Our Audit Committee may delegate the authority to approve any audit or non-audit services to be provided to us by our registered public accounting firm to one or more subcommittees (including a subcommittee consisting of a single member). Any approval of services by a subcommittee of our Audit Committee pursuant to this delegated authority is reported at the next meeting of our Audit Committee.

## Vote Required

Stockholder ratification of Deloitte & Touche LLP as our independent registered public accounting firm requires the affirmative vote of a majority of the votes cast by the holders of our Voting Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?”)). Abstentions and any broker non-votes are not considered votes cast and will have no effect on the outcome of this proposal.

## Recommendation of the Board

**THE BOARD RECOMMENDS A VOTE “FOR”  
THE RATIFICATION OF THE APPOINTMENT OF DELOITTE & TOUCHE LLP AS OUR  
INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING  
DECEMBER 31, 2025 (PROPOSAL TWO)**

## AUDIT COMMITTEE REPORT

The Audit Committee assists the Board with its oversight responsibilities regarding the Company’s financial reporting process. The Company’s management is responsible for the preparation, presentation and integrity of the Company’s financial statements and the reporting process, including the Company’s accounting policies, internal control over financial reporting and disclosure controls and procedures. Deloitte & Touche LLP, the Company’s independent registered public accounting firm, is responsible for performing an audit of the Company’s financial statements.

We have reviewed and discussed with management and Deloitte & Touche LLP the Company’s audited financial statements. We discussed with Deloitte & Touche LLP the overall scope and plans of their audit. We met with Deloitte & Touche LLP, with and without management present, to discuss the results of its examinations, its evaluation of the Company’s internal controls, and the overall quality of the Company’s financial reporting.

With regard to the fiscal year ended December 31, 2024, the Audit Committee has (i) reviewed and discussed with management the Company’s audited consolidated financial statements as of December 31, 2024, and for the year then ended; (ii) discussed with Deloitte & Touche LLP the matters required by the applicable requirements of the Public Company Accounting Oversight Board (PCAOB) and the SEC; (iii) received the written disclosures and the letter from Deloitte & Touche LLP required by applicable requirements of the PCAOB regarding Deloitte & Touche LLP’s communications with the Audit Committee concerning independence; and (iv) discussed with Deloitte & Touche LLP their independence.

Based on the review and discussions described above, the Audit Committee recommended to the Board that the Company’s audited financial statements be included in the Company’s Annual Report on Form 10-K for the fiscal year ended December 31, 2024, for filing with the SEC.

Respectfully submitted,

### AUDIT COMMITTEE

Dorri McWhorter, Chair  
Barbara Moakler Byrne  
Reyad Fezzani  
Nigel Gormly

### PROPOSAL 3

#### ADVISORY VOTE TO APPROVE THE COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS

Pursuant to Section 14A of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), we are providing our stockholders the opportunity to vote on a non-binding, advisory resolution, commonly known as a “say-on-pay” vote, to approve the compensation of our named executive officers as described in this proxy statement in the compensation tables in the section entitled “Executive Compensation” and any related narrative discussion contained in this proxy statement.

This proposal gives our stockholders the opportunity to express their views on the design and effectiveness of our executive compensation program. While this stockholder vote on executive compensation is an advisory vote that is not binding on our Company or the Board, we value the opinions of our stockholders and will consider the outcome of the vote when making future compensation decisions. The advisory vote to approve the compensation of our named executive officers requires the affirmative vote of a majority of the votes cast by the holders of our Voting Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?”)). The Board and the Compensation Committee will consider the outcome of this vote when making future compensation decisions for our named executive officers.

We encourage stockholders to read the section titled “Executive Compensation” in this proxy statement, including the compensation tables and the related narrative disclosure, which describes the structure and amounts of the compensation of our named executive officers in fiscal year 2024. The compensation of our named executive officers is designed to enable us to attract and retain talented and experienced executives to lead us successfully in a competitive environment. The Compensation Committee and the Board believe that our executive compensation strikes the appropriate balance between utilizing responsible, measured pay practices and effectively incentivizing our named executive officers to dedicate themselves fully to value creation for our stockholders.

At the Company’s 2024 annual meeting of stockholders, our stockholders indicated their preference to hold the non-binding stockholder vote to approve the compensation of our named executive officers each year. Accordingly, the Company currently intends to hold such votes annually, with the next advisory approval of named executive officer compensation occurring at our 2026 annual meeting of stockholders.

Accordingly, the following resolution will be submitted for a stockholder vote at the Annual Meeting:

“RESOLVED, that the stockholders approve, on an advisory and non-binding basis, the compensation of our named executive officers, as disclosed in this proxy statement pursuant to Item 402 of Regulation S-K, including the compensation tables and narrative discussion in this proxy statement.”

#### Vote Required

This vote is not intended to address any specific element of compensation, but rather the overall compensation of our named executive officers and the compensation philosophy, policies and practices described in this proxy statement. Approval of the above resolution requires the affirmative vote of a majority of the votes cast by the holders of our Voting Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “Questions and Answers About the Annual Meeting—What voting cap is

the Preferred Stock subject to?”)). Abstentions and broker non-votes are not considered votes cast and will have no effect on the outcome of this proposal.

**Recommendation of the Board**

**THE BOARD RECOMMENDS A VOTE “FOR” THE ADVISORY VOTE TO APPROVE THE  
COMPENSATION OF OUR NAMED EXECUTIVE OFFICERS (PROPOSAL THREE)**

## PROPOSAL 4

### THE INCREASED AUTHORIZED SHARE PROPOSAL

#### Overview

Our Board has unanimously approved and recommends that our stockholders approve an amendment to our Certificate of Incorporation to increase the number of authorized shares of our Common Stock from 600,000,000 to 2,580,000,000. This will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000. If approved by our stockholders, the Increased Authorized Share Proposal would be effected by the filing of a Certificate of Amendment to our Certificate of Incorporation (the "Increased Authorized Share Amendment") with the Delaware Secretary of State. Under the Purchase Agreement, we are obligated to seek approval from our stockholders for this increase in the number of authorized shares of Common Stock in order to issue the Common Stock upon exercise of the Warrant and allow for the issuance of shares of Common Stock in a Financing. The Increased Authorized Share Amendment would not affect the number of authorized shares of preferred stock, which will remain the same at 20,000,000.

If our stockholders approve this Increased Authorized Share Proposal (and as it relates to the changes to the par value of the Common Stock in red ink, if our Stockholders approve the Par Value Amendment described herein), Section 4.1 of our Certificate of Incorporation will be revised to reflect the changes in blue ink (additions are reflected in underlined text; subtractions are reflected through a double strike-through):

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 620,000,000~~2,600,000,000~~ shares, consisting of (a) 600,000,000~~2,580,000,000~~ shares of common stock (the "**Common Stock**"), par value \$0.000001 per share, and (b) 20,000,000 shares of preferred stock (the "**Preferred Stock**"), par value \$0.0001 per share.

The above does not take into account the Split-Related Proposals (as defined in Proposal 5).

This proposal describes the material terms of the proposed amendment to our Certificate of Incorporation and is qualified in its entirety by reference to the complete text of the form of Increased Authorized Share Amendment, which is included (along with the text of the Par Value Amendment) in paragraph 1 of the Certificate of Amendment set out in Appendix A to this proxy statement and incorporated herein by reference. You are strongly encouraged to read the actual text of the Increased Authorized Share Amendment. The proposed Increased Authorized Share Amendment is subject to revision for such changes as may be required by the Delaware Secretary of State.

#### Issued Common Stock and Available Reserves

Our Certificate of Incorporation authorizes us to issue up to 600,000,000 shares of our Common Stock. As of the Record Date, we had 231,964,989 shares of Common Stock that were issued and outstanding, 2,926,514 shares that were held by us as treasury shares and 78,951,959 shares that were reserved for future issuance. Shares of Common Stock reserved for future issuance as of that date included:

- 14,647,686 reserved for issuance in connection with warrants (other than shares issuable upon exercise of the Warrant);
- 24,855,795 reserved for issuance in connection with restricted stock units, options and performance share units under the executive compensation plans of the Company;
- 19,448,478 reserved for issuance with respect to new grants under the LanzaTech Global, Inc. 2023 Long-Term Incentive Plan (the "2023 Plan"); and
- 20,000,000 reserved for issuance in connection with the conversion of the Preferred Stock.

As a result, as of such date, we had 289,083,052 shares of Common Stock (including 2,926,514 treasury shares), or 48.2% of our total authorized shares, available for future issuance that were not reserved for other purposes.

Pursuant to the Purchase Agreement, we agreed to issue and sell to the Purchaser the Warrant to purchase 780,000,000 shares of Common Stock (which will be adjusted if the Reverse Stock Split is effected). In addition, if we are successful in securing \$60 million of gross proceeds in a Financing, we would be required to issue 1,200,000,000 shares of Common Stock to the investors in such financing (which will be adjusted if the Reverse Stock Split is effected). If we do not obtain stockholder approval of the Increased Authorized Share Amendment, we will not have sufficient authorized shares to issue the Warrant Shares to the Purchaser and/or the shares to the investors in a Financing.

Following the filing of the Increased Authorized Share Amendment, (i) the Purchase Agreement obligates us to reserve and keep available, free from preemptive rights and out of our aggregate authorized but unissued or treasury shares of Common Stock, shares of Common Stock equal to the number of Warrant Shares deliverable upon the exercise of the Warrant, which is currently 780,000,000 shares (which will be adjusted if the Reverse Stock Split is effected); and (ii) the Certificate of Designation obligates us to reserve and keep available out of our authorized but unissued capital stock, such number of our duly authorized shares of Common Stock as shall from time to time be sufficient to effect the conversion of all outstanding Preferred Stock, which is currently 20,000,000 shares (which will be adjusted to if the Reverse Stock Split is effected).

If the Split-Related Proposals described in Proposal 5 are approved, if and when the Reverse Stock Split is effected, and contemporaneously with such Reverse Stock Split, we will effect a corresponding decrease to the number of authorized shares of Common Stock (and, as a result, a reduction in the total authorized shares) as described in Proposal 5.

**The increase in authorized shares is necessary to permit the Company to satisfy its obligations under the Purchase Agreement, issue the Warrant Shares and consummate a Financing.**

## **Background**

### ***Background Regarding the Preferred Stock***

On May 7, 2025, we entered into a Purchase Agreement with the Purchaser, pursuant to which we agreed to issue and sell 20,000,000 shares of Preferred Stock to the Purchaser for an aggregate purchase price of \$40 million. The Preferred Stock Issuance was consummated on May 7, 2025. On June 2, 2025, we entered into the Purchase Agreement Amendment to, among other things, extend the date by which the Company is required to (i) issue and sell the Warrant to the Purchaser from May 31, 2025 to the Issuance Time, if and only if the Issuance Time occurs on or prior to May 7, 2026, and (ii) consummate a Subsequent Financing from no later than 10 business days following receipt of the Requisite Stockholder Approvals to no later than 45 days following receipt thereof.

The Preferred Stock ranks senior to the Common Stock in priority of payment in all respects, including with respect to distribution of assets, distributions in connection with any Liquidation Event (as defined in the Certificate of Designation, and including certain bankruptcy and insolvency related events) or Deemed Liquidation Event (as defined in the Certificate of Designation and including a change of control transaction and the sale of all or substantially all assets of the Company and its subsidiaries), and all other redemption rights. The Preferred Stock has an initial original issue price of \$2.00 per share. Dividends on the Preferred Stock accrue at a rate of 8% per annum, on the basis of actual days elapsed in a year of 360 days. Dividends accrue quarterly in arrears and, once accrued, shall not be declared or paid but shall be added to the liquidation value of such shares.

Each share of Preferred Stock is convertible, at the option of the holder thereof (with respect to its shares) or at the option of the Majority Holders (on behalf of all holders), into one fully-paid and non-assessable share of Common Stock (subject to adjustment in certain events, including the Reverse Stock Split) without the payment of additional consideration by the holder.

Upon the occurrence of certain "Mandatory Redemption Events" (as defined and further described in the Certificate of Designation and including, among other things, a change of control, a Liquidation Event, a Deemed Liquidation Event, failure of stockholders to approve the Increased Authorized Share

Amendment and certain covenant breaches), the Company is required to make an irrevocable and unconditional offer to holders of the Preferred Stock to redeem all of the then-outstanding shares of Preferred Stock (“Mandatory Redemption”). The redemption price for each share of Preferred Stock redeemed in a Mandatory Redemption is equal to an amount per share of 1.5x its liquidation value as of the relevant date of determination. Upon the occurrence of certain Liquidation Events, all outstanding Preferred Stock will be deemed automatically surrendered to the Company, redeemed and extinguished in exchange for a promissory note. The Preferred Stock is not redeemable at the election of the Company. From and after the date on which both (i) certain conditions with respect to an Other Financing have been satisfied and (ii) the Warrant Shares have been issued, none of the shares of Preferred Stock will be redeemable at the election of the holders thereof.

Subject to the limitations set forth in the Certificate of Designation (including as it relates to the limitation of voting power prior to the receipt of certain stockholder approvals), each holder of Preferred Stock is entitled to cast three votes per each share of Common Stock into which the Preferred Stock is convertible. In addition, for so long as the Preferred Stock remains outstanding, the holders of the Preferred Stock are entitled to elect, voting together as a separate class and on an as-converted to Common Stock basis, one director on the Company’s Board and to fill any vacancies with respect to such director.

The Certificate of Designation provides for certain “most favored nation” treatment to holders of the Preferred Stock, including that the Majority Holders may request that Company amend and restate the Certificate of Designation or any other organizational document to provide that the designations, preferences and privileges in respect of the Preferred Stock are no less favorable than the terms of any other financing (other than the Subsequent Financing).

The Certificate of Designation also provides that, without the consent of the Majority Holders and subject to certain exceptions described therein, the Company may not (i) consummate any financing, except for the Subsequent Financing; (ii) amend, alter or repeal its certificate of incorporation or its bylaws in a manner that adversely affects the rights, powers, preferences or privileges of the Preferred Stock; (iii) create, authorize or issue new equity interests; (iv) increase or decrease the authorized number of shares of Common Stock (other than pursuant to the Requisite Stockholder Approvals) or Preferred Stock; (v) purchase or redeem or pay or declare any dividend on any shares of the Company’s capital stock; (vi) create, or hold capital stock in, non-wholly owned subsidiaries; (vii) change the number of votes entitled to be cast by directors; (viii) incur, or cause or permit any subsidiary to incur, indebtedness or liens; (ix) change in any material respect the compensation or benefits of any executive officer; (x) enter into certain related party transactions; (xi) sell, lease, transfer, exclusively license or dispose of certain material assets; (xii) consummate certain investments outside the ordinary course of business; and (xiii) materially change the nature of the Company or its subsidiaries’ businesses.

#### ***Background regarding the Warrant***

Pursuant to the Purchase Agreement, the Company agreed to issue and sell to the Purchaser the Warrant to purchase 780,000,000 Warrant Shares at an exercise price equal to \$0.0000001 per Warrant Share (subject to adjustments in certain events, including the Reverse Stock Split and to be no less than par value of the Common Stock). We will be required to issue the Warrant at the Issuance Time, if and only if the Issuance Time occurs on or prior to May 7, 2026. The Warrant will not be exercisable unless and until the Conditions to Exercise have been satisfied; provided, however, that if the Conditions to Exercise are satisfied, the Warrant will be deemed automatically exercised concurrently with the consummation of such Financing, on a cashless, net-exercise basis. Based upon the closing price of the Company’s Common Stock on the Nasdaq Capital Market of \$0.29 on June 6, 2025, such cashless exercise would have resulted in 779,999,731 Warrant Shares being issued to the Purchaser (which number of Warrant Shares would be adjusted if the Reverse Stock Split is effected). Due to the nominal exercise price, the number of shares of Common Stock issuable upon cashless exercise of the Warrant will be approximately equal to the number of Warrant Shares. The Warrant will terminate at the earlier of (i) the Expiration Time and (ii) May 7, 2026.

#### ***Background regarding a Financing***

In the Purchase Agreement, and subject to obtaining the Requisite Stockholder Approvals, the Company agreed to use its reasonable best efforts to

consummate the Subsequent Financing, which, if consummated, must occur no later than 45 days following receipt of the Requisite Stockholder Approvals. The Subsequent Financing could result in the issuance of 700,000,000 to 1,200,000,000 shares of Common Stock (which will be adjusted if the Reverse Stock Split is effected).

In addition, with the Majority Holders' consent, the Company may consummate a financing that does not constitute a Subsequent Financing (an "Other Financing"), which Other Financing could result in fewer shares being issued or such shares being issued at a lower price than in a Subsequent Financing.

We are actively seeking additional capital and we have entered into confidentiality agreements with various potential investors, including certain of our existing stockholders. As of the date hereof, we have not entered into any definitive agreements with any investor with respect to a Financing and there can be no assurance when, or if, any such definitive agreements may be entered into in respect of a Financing and whether any such investors would be existing stockholders of the Company and/or new third party investors. See "Proposal 8—The Nasdaq Listing Rule 5635(b) Proposal—Potential Effects of the Nasdaq Listing Rule Proposals".

Subject to the conditions set forth in the Warrant, the Warrant will not be exercised unless and until (i) the Requisite Stockholder Approvals are obtained; (ii) the filing of the certificate of amendments to the Certificate of Incorporation to effect the Reverse Stock Split, the Increased Authorized Share Amendment, the Par Value Amendment and the Written Consent Amendment; and (iii) the consummation of a Financing.

### **Reasons for the Proposal**

We and our Board believe that it is advisable and in our and our stockholders' best interests, and critical to our long-term success, to increase the number of authorized shares of our Common Stock. Our Board is recommending the increase in the number of authorized shares of our Common Stock because we lack sufficient shares to issue the Warrant Shares and to consummate a Financing. The Increased Authorized Share Amendment accordingly reflects an aggregate increase of 1,980,000,000 shares of our authorized common stock in order to issue up to 780,000,000 Warrant Shares and to issue up to 1,200,000,000 of shares of Common Stock in a Financing. In addition, pursuant to the Purchase Agreement, we are obligated to seek approval from our stockholders of the Increased Authorized Share Amendment.

Furthermore, failure to have a sufficient number of shares of Common Stock duly authorized for the exercise of the Warrant and the consummation of the Subsequent Financing after this Annual Meeting constitutes a Mandatory Redemption event under the Preferred Stock. We can provide no assurance that we will have sufficient liquidity to make this payment.

### **Potential Effects of the Increased Authorized Share Amendment**

The additional shares of Common Stock proposed to be authorized under the Increased Authorized Share Proposal would have rights identical to our currently outstanding shares of Common Stock. Stockholders will have no subscription, preferential or preemptive rights with respect to additional shares of Common Stock proposed to be authorized for issuance, nor will they have cumulative voting rights. Accordingly, any future issuance of Common Stock may dilute such stockholders' holdings of Common Stock as a percentage of shares outstanding to the extent stockholders do not otherwise maintain their percentage interest. Further, if current stockholders of the Company do not purchase additional shares to maintain their respective percentage interests, their voting power will be diluted.

### **Certain Risks and Considerations Associated with the Increased Authorized Share Amendment**

Stockholders should evaluate the below risks and considerations before voting on the Increased Authorized Share Amendment.

***If our stockholders approve the Increased Authorized Share Amendment and the other Conditions to Exercise the Warrant have been satisfied, our stockholders will experience substantial dilution as a result of the exercise of the Warrant and the consummation of a Financing; and Nasdaq has used its discretionary authority to delist securities in largely dilutive transactions.***

As of the Record Date, we had 231,964,989 shares of Common Stock issued and outstanding and 78,951,959 shares of Common Stock reserved for future issuance, consisting of (i) 14,647,686 shares reserved for issuance in connection with warrants (other than shares issuable upon exercise of the Warrant), (ii) 24,855,795 reserved for issuance in connection with restricted stock units, options and performance share units under the executive compensation plans of the Company, (iii) 19,448,478 reserved for issuance with respect to new grants under the 2023 Plan and (iv) 20,000,000 reserved for issuance in connection with the conversion of the Preferred Stock. Pursuant to the Purchase Agreement, we have also agreed upon satisfaction of certain conditions to issue the Warrant to purchase up to 780,000,000 shares of Common Stock, which Warrant will become exercisable if and when the Conditions to Exercise have been satisfied. Additionally, a Financing, if consummated, could result in the issuance of up to 1,200,000,000 shares of Common Stock. The issuance of additional shares of Common Stock upon the exercise of the Warrant and the consummation of a Financing, if any, could result in the issuance of a maximum of 1,980,000,000 shares of Common Stock (without giving effect to the Reverse Stock Split), increasing the number of shares issued and outstanding as of the Record Date by 853.6%, which would result in significant dilution for stockholders of their ownership and voting interests in the Company. As a result, the passage of the Special Proposals will likely result in a decrease in your proportionate ownership and voting power.

In addition, under Nasdaq Listing Rule 5101, Nasdaq has broad discretionary authority to delist securities out of public interest concerns even if a company otherwise meets all enumerated criteria for continued listing and has received stockholder approval as required by its organizational documents and Nasdaq Listing Rules. Nasdaq has exercised such authority in the past to make delisting determinations with respect to listed companies due to concerns relating to substantial stockholder dilution, including significant increases in authorized shares without a corresponding immediate use for a significant portion of such shares and reverse stock splits that do not include a corresponding decrease to authorized shares.

Even if stockholders approve the Nasdaq Listing Rule Proposals and the Split-Related Proposals, we cannot assure you that Nasdaq would not exercise its discretionary authority to make a delisting determination with respect to our Common Stock or that we will be successful in challenging any such determination. If the Company's Common Stock were to be delisted, it would adversely affect the value and liquidity of the Common Stock and could also affect the Company's ability to raise additional financing through a public or private sale of equity securities in the future.

***There has not been an active market for trading in our Common Stock, and the issuance of shares upon conversion of the Preferred Stock, exercise of the Warrant and in connection with a Financing will concentrate our share ownership and could further limit trading activity.***

There currently is not an active market for trading in our Common Stock, which we believe is in part due to the strategic processes we were evaluating and that resulted in the issuance of the Preferred Stock.

In addition, if the Increased Authorized Share Amendment and the Nasdaq Listing Rule Proposals are approved and we issue shares of Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, the ownership of our Common Stock will be concentrated in a limited number of holders. Assuming (i) the full conversion of the Preferred Stock into Common Stock, (ii) the full cashless exercise of the Warrant for shares of Common Stock and (iii) the issuance of \$35 million in value of shares of our Common Stock (or 700,000,000 of shares of Common Stock at a price of \$0.05 per share) to new investors with no current shareholdings in the Company and that are not affiliated with Khosla Ventures and its affiliates (i.e., the minimum share issuance in a Subsequent Financing), Khosla Ventures and its affiliates would beneficially own approximately 48.7% of the outstanding shares of Common Stock, which would represent the largest ownership position of the Company, the investors in such Financing would collectively beneficially own approximately 40.4% of the outstanding shares of Common Stock and no other existing stockholder would beneficially own 5% or more of the outstanding shares of Common Stock. To the extent that Khosla Ventures and its affiliates or any existing Company stockholder participates in any such Financing, their beneficial ownership would further increase and if only one investor participates in the Financing, such investor would beneficially own a significant portion of our Common Stock with the upper levels of such ownership dependent on the size of any Financing and the levels of participation therein. This concentration of share ownership could further limit trading activity in our Common Stock and make it more difficult for stockholders to sell their Common Stock at prevailing market prices or at all.

***Khosla Ventures and its affiliates will have significant influence over us following the exercise of the Warrant, and their interests may conflict with those of our other stockholders in the future.***

Khosla Ventures and its affiliates currently have the largest ownership position in the Company, which position will increase upon exercise of the Warrant and which would be further concentrated to the extent they participate in a Financing. See “—There has not been an active market for trading in our Common Stock, and the issuance of shares upon conversion of the Preferred Stock, exercise of the Warrant and in connection with a Financing will concentrate our share ownership and could further limit trading activity.” Under the Certificate of Designation, prior to approval of the Nasdaq Listing Rule Proposals, the voting power of the Series A Preferred Stock may not exceed, in the aggregate, the voting power of 39,360,036 shares of Common Stock (as such amount may be proportionately adjusted in certain events, including the Reverse Stock Split), which equates to 19.9% of our outstanding shares of Common Stock as of May 7, 2025. If our stockholders approve the Nasdaq Listing Rule Proposals, pursuant to the terms of the Certificate of Designation, such voting cap will fall away and the 20,000,000 shares of Series A Preferred Stock will be entitled to an aggregate of 60,000,000 votes. As a result and so long as they hold a significant amount of our voting power, Khosla Ventures and its affiliates will have significant influence over the outcome of all matters requiring stockholder approval, including the election and removal of our directors, and thereby our corporate and management policies. In addition, Khosla Ventures and its affiliates may vote their shares in a manner that, in their judgment, could enhance their investment, but which may conflict with our interests or those of our other stockholders. This concentration of ownership may also delay or deter possible changes in control of the Company or deprive our other stockholders of an opportunity to receive a premium for their shares of Common Stock as part of a sale of the Company, which may ultimately affect the market price of our Common Stock.

#### **Effectiveness of the Increased Authorized Share Amendment**

If the proposed Increased Authorized Share Amendment is approved and adopted by the stockholders at the Annual Meeting, it will become effective upon the effectiveness of the Increased Authorized Share Amendment with the Delaware Secretary of State. We expect to file the Increased Authorized Share Amendment promptly following the conclusion of the Annual Meeting.

#### **Required Vote**

Approval of the Increased Authorized Share Proposal requires that the votes cast “for” the Increased Authorized Share Proposal exceed the votes cast “against” the Increased Authorized Share Proposal by (i) the holders of our Voting Stock entitled to vote thereon (with Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (ii) the holders of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

#### **Recommendation of the Board**

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
“FOR” THE INCREASED AUTHORIZED SHARE PROPOSAL (PROPOSAL FOUR)**

## PROPOSAL 5

### THE SPLIT-RELATED PROPOSALS

#### Overview

Our Board has unanimously approved and recommends that our stockholders approve an amendment to our Certificate of Incorporation, to effect a reverse stock split with a ratio of 100-for-1 (the “Reverse Stock Split”) with respect to the issued and outstanding Common Stock and a corresponding decrease to the authorized number of shares of Common Stock (and, as a result, a reduction in the total authorized shares). The Reverse Stock Split will also affect outstanding Preferred Stock, options, restricted stock units, performance share units and warrants, as described in “—Effect on Preferred Stock, Equity Compensation Plans and Warrants” below.

Approval of this proposal will grant the Board the authority, without further action by the stockholders, to carry out the Reverse Stock Split any time. If approved by our stockholders, the Reverse Stock Split would be effected by the filing of a Certificate of Amendment to our Certificate of Incorporation as set forth in Appendix B (the “Reverse Stock Split Amendment”) with the Delaware Secretary of State, which Certificate of Amendment would also effect the changes contemplated by the Decreased Authorized Share Proposal by changing the first paragraph of Section 4.1 of our Certificate of Incorporation to reflect 25,800,000 authorized shares of Common Stock and 45,800,000 authorized shares of capital stock. The text of the proposed Reverse Stock Split Amendment is subject to revision to include such changes as may be required by the Secretary of State of the State of Delaware. Stockholders are urged to carefully read [Appendix B](#).

#### Reasons for the Reverse Stock Split

In approving the Reverse Stock Split, the Board evaluated a variety of factors, including those described below, and ultimately determined that the potential benefits outweighed any countervailing considerations. The Board has determined that it is advisable and in the best interests of the Company and its stockholders to reduce the number of shares of Common Stock outstanding with the primary intent of increasing the per share trading price of the Common Stock in order to meet the listing requirements of the Nasdaq Capital Market. The foregoing analysis does not give effect to the shares of Common Stock that may be issued upon conversion of the Preferred Stock, the Warrant or a future equity issuance.

The Common Stock is currently listed on the Nasdaq Capital Market under the symbol “LNZA.” The continued listing requirements of the Nasdaq Capital Market provide, among other things, that our Common Stock must maintain a closing bid price in excess of \$1.00 per share. On March 13, 2025, we received written notice from the Nasdaq Listing Qualifications Department, notifying us that, for the last 30 consecutive business days, the closing bid price for the Common Stock has been below the \$1.00 per share minimum closing bid price requirement for continued listing on The Nasdaq Capital Market, as set forth in Nasdaq Listing Rule 5550(a)(2) (the “Bid Price Rule”).

Although the notice has no immediate effect on the Company’s Nasdaq listing and its Common Stock will continue to be listed and trade under the symbol “LNZA,” in accordance with Nasdaq Listing Rule 5810(c)(3)(A), the Company has a period of 180 calendar days, or until September 9, 2025 (the “First Compliance Date”), to regain compliance with the Bid Price Rule. To regain compliance, the closing bid price of the Common Stock must meet or exceed \$1.00 per share for a minimum of ten consecutive business days during this 180-day period. If at any time before the First Compliance Date, the closing bid price of the Company’s Common Stock closes at \$1.00 per share or more for a minimum of ten consecutive business days, subject to the discretion of the Nasdaq Listing Qualification Staff, Nasdaq will provide the Company with a written confirmation of compliance with the Bid Price Rule.

If the Company does not regain compliance with the Bid Price Rule by the First Compliance Date, the Company may be eligible for a second 180-day compliance period. To qualify, the Company would be required to meet the continued listing requirement for market value of publicly held shares and all other

listing standards for The Nasdaq Capital Market, with the exception of the Bid Price Rule, and would need to provide written notice of its intention to cure the bid price deficiency during the second compliance period. If it appears to the Nasdaq staff that the Company will not be able to cure the deficiency or if the Company is otherwise not eligible or fails to regain compliance during the second compliance period, Nasdaq will provide written notification to the Company that the Common Stock is subject to delisting. At that time, the Company may appeal any such delisting determination to a Nasdaq hearings panel.

Our Board determined that the continued listing of our Common Stock on the Nasdaq Capital Market is beneficial for our stockholders. The delisting of our Common Stock from Nasdaq would likely have very serious consequences for the Company and our stockholders. If our Common Stock is delisted from the Nasdaq Capital Market, our Board believes that the liquidity of the trading market for our Common Stock could become even more limited, which could reduce the trading price of our Common Stock and increase the transaction costs of trading in shares of our Common Stock.

The Company has carefully considered alternatives to cure the deficiency to regain compliance and the Board determined that the Reverse Stock Split provided the optimal solution. The purpose of the Reverse Stock Split is to decrease the total number of shares of Common Stock outstanding and proportionately increase the market price of the Common Stock in order to potentially meet the Bid Price Rule for continued listing on the Nasdaq Capital Market. We expect the Reverse Stock Split to increase the per-share trading price of our Common Stock back above \$1.00, and as a result, we also believe that the Reverse Stock Split may make our Common Stock more attractive to a broader range of institutional and other investors, as we have been advised that the current per share trading price of our Common Stock may affect its acceptability to certain institutional investors, professional investors and other members of the investing public. Many brokerage houses and institutional investors have internal policies and practices that either prohibit them from investing in low-priced stocks or tend to discourage individual brokers from recommending low-priced stocks to their customers. In addition, some of those policies and practices may function to make the processing of trades in low-priced stocks economically unattractive to brokers.

The Reverse Stock Split will also affect outstanding Preferred Stock, stock options, restricted stock units and warrants, as described in “- Effect on Preferred Stock, Equity Compensation Plans and Warrants” below.

#### **Board Discretion to Implement the Reverse Stock Split**

Our Board intends to effect the Reverse Stock Split only if it believes that a decrease in the number of shares outstanding is in the best interests of the Company and our stockholders and is likely to improve the trading price of our Common Stock. Our Board approved the Split-Related Proposals in order to help ensure that the share price of our Common Stock meets the continued listing requirements of the Nasdaq Capital Market. In addition, the Board may determine to effect the Reverse Stock Split even if the trading price of our Common Stock is at or above \$1.00 per share.

Approval of the Split-Related Proposals will grant the Board the authority, without further action by the stockholders, to carry out the Reverse Stock Split at any time with the exact timing to be determined at the discretion of the Board. Even if our stockholders approve this Proposal, our Board may determine in its discretion not to effect the Reverse Stock Split and to abandon the amendment to the Certificate of Incorporation to effect the Reverse Stock Split and corresponding decrease in authorized Common Stock (and, as a result, a reduction in the total authorized shares) prior to filing and effectiveness, subject to the requirement in the Purchase Agreement to effectuate a reverse stock split. The Board would carry out the Reverse Stock Split and corresponding decrease in authorized Common Stock (and, as a result, a reduction in the total authorized shares) only upon the Board’s determination that a reverse stock split would be in the best interest of our stockholders at that time.

### **Criteria to Be Used for Determining Whether to Implement the Reverse Stock Split**

In determining whether to implement the Reverse Stock Split, the Board may consider, among other things, various factors, such as:

- the historical trading price and trading volume of our Common Stock as well as the expected issue price of shares of Common Stock to be issued pursuant to the transactions contemplated by the Purchase Agreement;
- the projected impact of the Reverse Stock Split ratio on trading liquidity in our Common Stock and our ability to maintain continued listing on the Nasdaq Capital Market;
- our capitalization (including the number of shares of Common Stock issued and outstanding);
- the potential devaluation of our market capitalization as a result of the Reverse Stock Split;
- the then-prevailing trading price and trading volume of our Common Stock and the expected impact of the Reverse Stock Split on the trading market for our Common Stock in the short and long-term; and
- prevailing general market and economic conditions.

### **Certain Considerations and Risks Associated with the Reverse Stock Split**

In evaluating the Reverse Stock Split, stockholders should evaluate the following considerations and risks before voting on this proposal:

#### ***We cannot assure you that the Reverse Stock Split will increase our stock price.***

We expect that the Reverse Stock Split will increase the per share trading price of our Common Stock. However, the effect of the Reverse Stock Split on the per share trading price of our Common Stock cannot be predicted with any certainty and we also cannot assure you that the total market capitalization of our Common Stock after the implementation of the Reverse Stock Split will be equal to or greater than the total market capitalization prior to the Reverse Stock Split. Other factors, such as our financial results, market conditions and the market perception of our business may adversely affect the per share trading price of our Common Stock. Additionally, the history of reverse stock splits for other companies is varied, particularly since some investors may view a reverse stock split negatively. It is possible that the per share trading price of our Common Stock after the Reverse Stock Split will not increase in the same proportion as the reduction in the number of our outstanding shares of Common Stock following the Reverse Stock Split, and the Reverse Stock Split may not result in a per share trading price that would attract investors who do not trade in lower priced stocks. In addition, although we believe the Reverse Stock Split may enhance the marketability of our Common Stock to certain potential investors, we cannot assure you that, if implemented, our Common Stock will be more attractive to investors, or that any increase in our per-share stock price will succeed in attracting institutional investors or satisfying the investing guidelines of such investors.

Even if we implement the Reverse Stock Split, the per share trading price of our Common Stock may decrease due to factors unrelated to the Reverse Stock Split, including our future performance. If the Reverse Stock Split is consummated and the per share trading price of our Common Stock declines, the percentage decline as an absolute number and as a percentage of our overall market capitalization may be greater than would occur in the absence of the Reverse Stock Split.

Thus, there can be no assurance that the Reverse Stock Split, if completed, will result in the intended benefits described above, that the per share trading price of our Common Stock will increase following

the Reverse Stock Split or that the per share trading price of our Common Stock will not decrease in the future.

***The Reverse Stock Split may decrease the liquidity of our Common Stock and result in higher transaction costs.***

The liquidity of our Common Stock may be negatively impacted by the Reverse Stock Split, given the reduced number of shares that would be outstanding after the Reverse Stock Split, particularly if the per share trading price does not increase as a result of the Reverse Stock Split or any increase is not sustained. In addition, if the Reverse Stock Split is implemented, it will increase the number of our stockholders who own “odd lots” of fewer than 100 shares of Common Stock. Brokerage commission and other costs of transactions in odd lots are generally higher than the costs of transactions of more than 100 shares of common stock. Accordingly, the Reverse Stock Split may not achieve the desired results of increasing marketability of our Common Stock as described above.

**Principal Effects of the Reverse Stock Split**

***General***

After the effective time of the Reverse Stock Split, if implemented by the Board, each stockholder will own a reduced number of shares of Common Stock. The principal effect of the Reverse Stock Split will be to proportionately decrease the number of outstanding shares of our Common Stock at the reverse stock split ratio, in tandem with a corresponding decrease to the number of authorized shares of Common Stock (and, as a result, a reduction in the total authorized shares).

The implementation of the Reverse Stock Split would not affect the actual or intrinsic value of our business or, subject to the rounding up of fractional shares, a stockholder’s proportional ownership or other rights in the Company.

**Effect on Status of Common Stock**

In connection with the Reverse Stock Split, our Common Stock will have a new Committee on Uniform Securities Identification Procedures (CUSIP) number used to identify our Common Stock.

Our Common Stock is currently registered under Section 12(b) of the Exchange Act, and we are subject to the periodic reporting and other requirements of the Exchange Act. The Reverse Stock Split will not affect the registration of our Common Stock under the Exchange Act and our Common Stock will continue to be listed on the Nasdaq Capital Market under the symbol “LNZA,” subject to compliance with the continued listing requirements of the Nasdaq Capital Market.

**Effect on Authorized Shares**

The following discussion assumes the passage of the Increased Authorized Share Proposal.

If the Reverse Stock Split is implemented, we will proportionately decrease our number of authorized shares of Common Stock from 2,580,000,000 to 25,800,000, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company from 2,600,000,000 to 45,800,000 (consisting of 25,800,000 authorized shares of Common Stock and 20,000,000 authorized shares of Preferred Stock).

**No Effect on Par Value or Assessment**

The Reverse Stock Split will not affect the par value of our Common Stock, but we are separately requesting a modification to par value pursuant to the Par Value Proposal. All shares of Common Stock outstanding immediately following the effectiveness of the Reverse Stock Split will remain fully paid and non-assessable.

## **Reduction in Stated Capital**

Without giving effect to the modifications contemplated by the Increased Authorized Share Amendment and Par Value Amendment, although the Reverse Stock Split would not affect the par value of our Common Stock per share, the number of outstanding shares of our Common Stock would decrease in accordance with the Reverse Stock Split ratio, and as a result, upon the effective time, the stated capital on our balance sheet attributable to our Common Stock, which consists of the par value per share of our Common Stock multiplied by the aggregate number of shares of our Common Stock issued and outstanding, will be reduced in proportion to the ratio of the Reverse Stock Split, subject to a minor adjustment in respect of the treatment of fractional shares. The additional paid-in capital account will be credited with the amount by which the stated capital is reduced and our stockholders' equity, in the aggregate, will remain unchanged.

Following the Reverse Stock Split, reported per share net income or loss would be higher because there would be fewer shares of our Common Stock outstanding, and we would retrospectively adjust historical per share amounts in our future financial statements for comparability.

## **Effect on Preferred Stock, Equity Compensation Plans and Warrants**

### ***Preferred Stock***

If the Reverse Stock Split is implemented, the conversion ratio applicable to our shares of Preferred Stock will be proportionately adjusted to reflect the Reverse Stock Split, to proportionately adjust the number of shares purchasable upon conversion of such Preferred Stock.

### ***Equity Compensation Plans***

In connection with its approval of the Reverse Stock Split, our Compensation Committee has recommended to the Board for approval and the Board has approved, subject to the occurrence of the Reverse Stock Split, corresponding adjustments to all outstanding equity awards (including stock options, restricted stock units and performance share units) granted under our equity compensation plans and shares reserved for issuance under the 2023 Plan.

### ***Warrants***

If the Reverse Stock Split is implemented, our outstanding warrants to purchase shares of our Common Stock will be proportionately adjusted to reflect the Reverse Stock Split, including the number of shares purchasable upon exercise of such warrants and their exercise prices.

### **Potential Anti-Takeover Effect**

Implementing the Reverse Stock Split will reduce the number of outstanding shares of Common Stock with a corresponding reduction to the number of shares of Common Stock (and, as a result, a reduction in the total authorized shares) that we are authorized by our Certificate of Incorporation to issue. Please see the discussion of the Increased Authorized Share Proposal for additional information on the contemplated increase in authorized shares of Common Stock prior to the effective time of the Reverse Stock Split. The Board has not approved the Reverse Stock Split with the intent that it be utilized as a type of anti-takeover device.

### **Voting Rights**

If the Reverse Stock Split is approved and effected with respect to the issued and outstanding Common Stock, each holder of Common Stock outstanding immediately prior to the effectiveness of the Reverse Stock Split will own a reduced number of shares of Common Stock upon effectiveness of the Reverse Stock Split. The Reverse Stock Split (in tandem with corresponding reduction in authorized shares of Common Stock and capital stock) would be effected simultaneously for all outstanding shares of Common Stock at the same exchange ratio. Except for adjustments that may result from the treatment of fractional shares (as described below), the Reverse Stock Split would affect all stockholders uniformly and would not change any stockholder's percentage ownership interest in the Company. The relative voting rights and other rights and preferences that accompany the shares of Common Stock will not be affected by the Reverse Stock Split. If the overall value of our Common Stock declines after the Reverse Stock Split, however, then the actual or intrinsic value of the shares of our Common Stock will also proportionately decrease as a result of the overall decline in value.

### **No Effect on Dividends**

The shares of Common Stock following the Reverse Stock Split will have the same rights to dividends and distributions as the Common Stock now outstanding. The payment of dividends and the timing and amounts thereof, must be made in accordance with our Certificate of Incorporation and the requirements of the Delaware law. We expect to retain future earnings, if any, for future operations, expansion and debt repayment and have no current plans to pay any cash dividends for the foreseeable future. Any decision to declare and pay cash dividends in the future will be made at the discretion of our Board and will depend on, among other things, our results of operations, financial condition, cash requirements, contractual restrictions and other factors that our Board may deem relevant. In addition, our ability to pay cash dividends are currently limited by covenants of any existing and future outstanding indebtedness we or our subsidiaries incur.

## **Shares Held in Book-Entry and Through a Broker, Bank, or Other Holder of Record**

Upon the effective time of the Reverse Stock Split, stockholders of record holding all of their shares of our Common Stock electronically in book-entry form under the direct registration system for securities will be automatically exchanged by the transfer agent for a new number of shares of Common Stock they hold after the Reverse Stock Split. Non-registered stockholders holding Common Stock through a bank, broker or other nominee should note that such banks, brokers or other nominees may have different procedures for processing the Reverse Stock Split. If you hold your shares with such a bank, broker or other nominee and if you have questions in this regard, you are encouraged to contact your nominee.

If you hold registered shares of our Common Stock in a book-entry form, you do not need to take any action to receive your post-Reverse Stock Split shares of our Common Stock in registered book-entry form.

## **No Fractional Shares**

No fractional shares of Common Stock will be outstanding following the Reverse Stock Split. The Company will issue a fraction of a share of Common Stock to each stockholder to the extent necessary to round up the total number of shares held by such stockholder after aggregating the shares held by such stockholder immediately following the Reverse Stock Split to the nearest whole number of shares.

Shares of our Common Stock held in registered form and shares of our Common Stock held in “street name” (that is, through a broker, bank or other holder of record) for the same stockholder will be considered held in separate accounts and will not be aggregated when effecting the Reverse Stock Split.

If you hold any shares with a bank, broker or other nominee and if you have questions in this regard, you are encouraged to contact your nominee.

The number of shares which will result in fractional interests cannot be precisely predicted as the Company cannot determine in advance the number of stockholders whose total holdings are not evenly divisible by the Reverse Stock Split ratio. The Company does not anticipate that a substantial number of shares will be required to be issued to effect this round up.

## **No Appraisal Rights**

Under Delaware law, stockholders are not entitled to appraisal rights with respect to the Reverse Stock Split, and we will not independently provide our stockholders with any such right.

## **No Going Private Transaction**

The Reverse Stock Split is not intended as, and would not have the effect of, a “going private transaction” covered by Rule 13e-3 under the Exchange Act.

## **Interests of Certain Persons in the Proposal**

Certain of our officers and directors have an interest in the Split-Related Proposals as a result of their ownership of shares of our Common Stock, as set forth below in the section entitled “Beneficial Ownership,” and due to holding outstanding equity awards under our equity compensation plans (see “Executive Compensation—Outstanding Equity Awards as of December 31, 2024”). However, we do not believe that our officers or directors have interests in the Split-Related Proposals that are different from or greater than those of any of our other stockholders.

## **Certain U.S. Federal Income Tax Consequences of the Reverse Stock Split**

The following discussion is a general summary of certain U.S. federal income tax consequences of the Reverse Stock Split that may be relevant to holders of our Common Stock that hold such stock as a

capital asset for U.S. federal income tax purposes (generally, property held for investment). This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended (the "Code"), Treasury regulations promulgated thereunder, administrative rulings and judicial decisions as of the date hereof, all of which may change, possibly with retroactive effect, resulting in U.S. federal income tax consequences that may differ from those discussed below.

This discussion applies only to holders that are U.S. Holders (as defined below) and does not address all aspects of federal income taxation that may be relevant to such holders in light of their particular circumstances or to holders that may be subject to special tax rules, including: (i) holders subject to the alternative minimum tax; (ii) banks, insurance companies, or other financial institutions; (iii) tax-exempt organizations; (iv) dealers in securities or commodities; (v) regulated investment companies or real estate investment trusts; (vi) partnerships (or other flow-through entities for U.S. federal income tax purposes and their partners or members); (vii) traders in securities that elect to use a mark-to-market method of accounting for their securities holdings; (viii) U.S. Holders (as defined below) whose "functional currency" is not the U.S. dollar; (ix) persons holding our Common Stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction; (x) persons who acquire shares of our Common Stock in connection with employment or other performance of services; (xi) U.S. expatriates or (xii) holders of the Preferred Stock. If a partnership (including any entity or arrangement treated as a partnership for U.S. federal income tax purposes) holds shares of our Common Stock, the tax treatment of a holder that is a partner in the partnership generally will depend upon the status of the partner and the activities of the partnership.

We have not sought, and will not seek, an opinion of counsel or a ruling from the Internal Revenue Service ("IRS") regarding the U.S. federal income tax consequences of the Reverse Stock Split and there can be no assurance that the IRS will not challenge the statements and conclusions set forth below or a court would not sustain any such challenge. The following summary does not address any U.S. state or local or any foreign tax consequences, any estate, gift or other non-U.S. federal income tax consequences, or the Medicare tax on net investment income.

**EACH HOLDER OF COMMON STOCK SHOULD CONSULT SUCH HOLDER'S TAX ADVISOR WITH RESPECT TO THE PARTICULAR TAX CONSEQUENCES OF THE REVERSE STOCK SPLIT TO SUCH HOLDER.**

For purposes of the discussion below, a "U.S. Holder" is a beneficial owner of shares of our Common Stock that for U.S. federal income tax purposes is: (1) an individual citizen or resident of the United States; (2) a corporation (including any entity taxable as a corporation for U.S. federal income tax purposes) created or organized in or under the laws of the United States, any state or political subdivision thereof; (3) an estate the income of which is subject to U.S. federal income taxation regardless of its source; or (4) a trust, if (i) a court within the United States is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (ii) the trust has a valid election in effect to be treated as a U.S. person.

The Reverse Stock Split is intended to be treated as a "recapitalization" for U.S. federal income tax purposes. As a result, a U.S. Holder generally should not recognize gain or loss upon the Reverse Stock Split. A U.S. Holder's aggregate tax basis in the shares of our Common Stock received pursuant to the Reverse Stock Split should equal the aggregate tax basis of the shares of our Common Stock surrendered, and such U.S. Holder's holding period in the shares of our Common Stock received should include the holding period in the shares of our Common Stock surrendered. Treasury regulations promulgated under the Code provide detailed rules for allocating the tax basis and holding period of the shares of our Common Stock surrendered to the shares of our Common Stock received pursuant to the Reverse Stock Split. Holders of shares of our Common Stock acquired on different dates and at different prices should consult their tax advisors regarding the allocation of the tax basis and holding period of such shares.

## **Effectiveness of the Reverse Stock Split**

If the Split-Related Proposals are approved and adopted by the stockholders at the Annual Meeting, the amendments contemplated thereby will become effective upon the effectiveness of the Reverse Stock Split Amendment with the Delaware Secretary of State. We expect to file the amendment to effectuate the Reverse Stock Split promptly following the conclusion of the Annual Meeting and after filing of the Increased Authorized Share Amendment.

If this proposal is approved, no further action on the part of stockholders would be required to either effect or abandon the Reverse Stock Split. Our Board reserves its right to elect not to proceed and abandon the Reverse Stock Split if it determines, in its sole discretion, that this proposal is no longer in the best interests of our stockholders.

## **Required Vote**

Approval of the Split-Related Proposals requires that the votes cast “for” the Split-Related Proposals exceed the votes cast “against” the Split-Related Proposals by (i) the holders of our Voting Stock entitled to vote thereon (with Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation) and (ii) the holders of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). Abstentions and any broker non-votes are not considered votes cast and will have no effect on the Split-Related Proposals.

## **Recommendation of the Board**

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
“FOR” THE SPLIT-RELATED PROPOSALS (PROPOSAL FIVE)**

## PROPOSAL 6

### ACTION BY WRITTEN CONSENT PROPOSAL

#### Overview

Our Board has unanimously approved and recommends that our stockholders approve an amendment to our Certificate of Incorporation to enable stockholders who comply with the applicable requirements and procedures set forth in our Certificate of Incorporation to act by written consent. If approved by our stockholders, the Action by Written Consent Proposal would be effected by the filing of a Certificate of Amendment to our Certificate of Incorporation (the "Written Consent Amendment") with the Delaware Secretary of State. Under the Purchase Agreement, we are obligated to seek approval from our stockholders for the Written Consent Amendment to the Certificate of Incorporation.

If our stockholders approve this Written Consent Amendment, we will amend and restate Section 7.3 of our Certificate of Incorporation to read as follows:

Section 7.3 Action by Consent in Lieu of Meeting. Any action required or permitted to be taken by the stockholders of the Corporation may be taken without a meeting, without prior notice and without a vote if a consent or consents, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the Corporation in the manner required by law.

This Proposal describes the material terms of the proposed amendment to our Certificate of Incorporation and is qualified in its entirety by reference to the complete text of the form of Written Consent Amendment, which is included in paragraph 2 of the Certificate of Amendment set out in Appendix A to this proxy statement and incorporated herein by reference. You are strongly encouraged to read the actual text of the Written Consent Amendment. The proposed Written Consent Amendment is subject to revision for such changes as may be required by the Delaware Secretary of State.

#### Reasons for the Proposal

Our Board is committed to strong corporate governance and believes in maintaining policies and practices that serve the best interests of all stockholders. Currently, the Certificate of Incorporation does not permit stockholder action by written consent. Consistent with the Board's desire to take proactive measures to enhance stockholder rights and commitment to maintaining exemplary corporate governance practices, the Board believes that it is in the best interests of the Company and its stockholders to approve an amendment to the Certificate of Incorporation to allow for any action required or permitted to be taken by the stockholders of the Company to be effected by written consent, as set forth in the Company's proposed Written Consent Amendment.

In addition, under the Purchase Agreement, we are obligated to seek approval from our stockholders to amend our Certificate of Incorporation to provide that the Company's stockholders may take action by written consent. This proposal is intended to satisfy this obligation under the Purchase Agreement.

#### Effectiveness of the Written Consent Amendment

If the proposed Written Consent Amendment is approved and adopted by the stockholders at the Annual Meeting, it will become effective upon the effectiveness of the Written Consent Amendment with the Delaware Secretary of State. We expect to file the Written Consent Amendment promptly following the conclusion of the Annual Meeting.

**Required Vote**

Approval of the Action by Written Consent Proposal requires the affirmative vote of the holders of (a) a majority in voting power of the outstanding shares of our Voting Stock entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see “Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?”) and (b) at least sixty-six and two-thirds percent (66 2/3%) of the outstanding shares of the Voting Stock entitled to vote thereon, voting together as a single class. For purposes of the second voting requirement for the Action by Written Consent Proposal only, to be conservative, we are taking the position that each stockholder of record of Preferred Stock is entitled to cast one vote per share of Preferred Stock. Abstentions and broker non-votes will have the same effect as a vote “AGAINST” the Action by Written Consent Proposal.

**Recommendation of the Board**

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
“FOR” THE ACTION BY WRITTEN CONSENT PROPOSAL (PROPOSAL SIX)**

**PROPOSAL 7**  
**PAR VALUE PROPOSAL**

**Overview**

Our Board has unanimously approved and recommends that our stockholders approve an amendment to our Certificate of Incorporation to decrease the par value of our Common Stock from \$0.0001 to \$0.0000001 per share. If approved by our stockholders, the Par Value Proposal would be effected by the filing of a Certificate of Amendment to our Certificate of Incorporation (the "Par Value Amendment") with the Delaware Secretary of State. Under the Purchase Agreement, we are obligated to seek approval from our stockholders for this decrease in the par value of the Common Stock.

If our stockholders approve this Par Value Proposal (and as it relates to the changes to the authorized shares of the Common Stock in blue ink, if our Stockholders approve the Increased Authorized Share Amendment described herein), the first sentence of Section 4.1 of our Certificate of Incorporation will be revised to reflect the changes in red ink (additions are reflected in underlined text; subtractions are reflected through a double strike-through):

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 620,000,000~~2,600,000,000~~ shares, consisting of (a) 600,000,000~~2,580,000,000~~ shares of common stock (the "**Common Stock**"), par value \$0.0000001 per share, and (b) 20,000,000 shares of preferred stock (the "**Preferred Stock**"), par value \$0.0001 per share.

The above does not take into account the Split-Related Proposals.

This proposal describes the material terms of the proposed amendment to our Certificate of Incorporation and is qualified in its entirety by reference to the complete text of the form of Par Value Amendment, which is included (along with the text of the Increased Authorized Share Amendment) in paragraph 1 of the Certificate of Amendment set out in Appendix A to this proxy statement and incorporated herein by reference. You are strongly encouraged to read the actual text of the Par Value Amendment. The proposed Par Value Amendment is subject to revision for such changes as may be required by the Delaware Secretary of State.

**Reasons for the Proposal**

Under Delaware law, shares of stock with par value may not be issued for consideration having a value less than the par value of the shares so issued. Par value has become a generally outdated concept. Instead, the market sets the price at which stock may be issued or otherwise sold. However, in order to issue the Warrant with an exercise price of \$0.0000001 per share, stockholders must approve the Par Value Amendment decreasing the par value to equal the expected per-share exercise price of the Warrant.

The change to \$0.0000001 per share par value of Common Stock will have no impact on the value of the Company's stock or the rights of its stockholders. In addition, the change in the par value of the Company's stock will have no effect on the dollar amount of the Company's total stockholders' equity. If the Par Value Amendment is approved, the Common Stock account on the Company's balance sheet at \$0.0001 per share will be reduced to reflect the product of the number of shares outstanding and the new par value of \$0.0000001 per share. The difference will be transferred to the capital surplus account.

The change in par value also will not change the number of authorized common or preferred shares and is a separate vote from the Increased Authorized Share Amendment and Split-Related Proposals. The change in par value will also have no impact on outstanding Company issued stock options or warrants. Under the Purchase Agreement, we are obligated to seek approval from our stockholders to set the par value of the Common Stock to an amount equal to the per-share exercise price of the Warrant. This proposal is intended to satisfy this obligation under the Purchase Agreement.

We and our Board believe it is therefore advisable and in our and our stockholders' best interests, and critical to our long-term success, for our stockholders to approve this proposal.

#### **Effectiveness of the Par Value Amendment**

If the proposed Par Value Amendment is approved and adopted by the stockholders at the Annual Meeting, it will become effective upon the effectiveness of the Par Value Amendment with the Delaware Secretary of State. We expect to file the Par Value Amendment promptly following the conclusion of the Annual Meeting.

#### **Required Vote**

Approval of the Par Value Proposal requires the affirmative vote of the holders of (1) a majority in voting power of the outstanding shares of the Voting Stock entitled to vote thereon, voting together as a single class (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see "Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?")) and (2) a majority in voting power of the outstanding shares of Common Stock entitled to vote thereon, voting as a separate class (excluding the holders of the Preferred Stock in their capacity as holders of Preferred Stock). Abstentions and broker non-votes will have the same effect as a vote "AGAINST" the Par Value Proposal.

#### **Recommendation of the Board**

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
"FOR" THE PAR VALUE PROPOSAL (PROPOSAL SEVEN)**

## PROPOSAL 8

### THE NASDAQ LISTING RULE 5635(b) PROPOSAL

#### Overview

We are asking that our stockholders approve the issuance of shares of Common Stock issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which issuances, independently or if taken together, would be in excess of 19.9% of our outstanding shares of Common Stock and may be deemed a “change of control” under Nasdaq Listing Rule 5635(b).

#### Nasdaq Listing Rule 5635(b)

As a result of being listed for trading on the Nasdaq Stock Market, issuances of our Common Stock are subject to the Nasdaq Listing Rules, including Nasdaq Listing Rule 5635(b). Nasdaq Listing Rule 5635(b) requires that the Company obtain stockholder approval prior to the issuance of securities when the issuance or potential issuance or series of issuances or potential issuances will result in a change of control of the Company. For purposes of Nasdaq Listing Rule 5635(b), a change of control is generally deemed to occur when, as a result of an issuance, an investor or group of investors would own, or have the right to acquire 20% or more of the outstanding shares of Common Stock or voting power, and such ownership or voting power would have the largest ownership position. The percentage is measured on a post-transaction basis. Stockholders should note that a “change of control” as described under Nasdaq Listing Rule 5635(b) applies only with respect to the application of such rule, and does not necessarily constitute a “change of control” for purposes of Delaware law or our organizational documents.

As of the Record Date, Khosla Ventures (as defined below) and its affiliates beneficially owned approximately 18.5% of the outstanding shares of Common Stock of the Company (excluding the Common Stock underlying the Preferred Stock). Assuming (i) the full conversion of the Preferred Stock into Common Stock, (ii) the full cashless exercise of the Warrant for shares of Common Stock and (iii) the issuance of \$35 million in value of shares of our Common Stock to investors not affiliated with Khosla Ventures and its affiliates (i.e., the minimum share issuance in a Subsequent Financing), Khosla Ventures and its affiliates would beneficially own approximately 48.7% of the outstanding shares of Common Stock, which would represent the largest ownership position of the Company. In addition, if an Other Financing is consummated in lieu of a Subsequent Financing and results in the issuance of less than \$35 million in value of shares of our Common Stock or if entities affiliated with Khosla Ventures purchase any of the shares in the Subsequent Financing or Other Financing, Khosla Ventures and its affiliates could beneficially own a greater percentage of the outstanding shares of our Common Stock. As a result, the conversion in full of the Preferred Stock, the exercise of the Warrant and the issuance of shares of Common Stock in the Subsequent Financing or Other Financing, as the case may be, independently or when taken together, may be deemed a change of control requiring stockholder approval.

#### Background Regarding the Preferred Stock, Warrant or Financing

For additional information on the Preferred Stock, the Warrant and a Financing, please see “Proposal 4—The Increased Authorized Share Proposal—Background.”

#### Reasons for the Proposal

Under the Purchase Agreement, we are obligated to seek approval from our stockholders with respect to the issuance of shares of Common Stock issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing for purposes of Nasdaq Listing Rule 5635(b). This proposal is intended to satisfy this obligation under the Purchase Agreement and to provide us with greater flexibility to consummate a Financing to obtain necessary capital to operate our business.

We and our Board believe it is therefore advisable and in our and our stockholders’ best interests, and critical to our long-term success, for our stockholders to approve this proposal.

## Potential Effects of the Nasdaq Listing Rule Proposals

Under the Certificate of Designation, prior to approval of the Nasdaq Listing Rule Proposals, the voting power of the Preferred Stock may not exceed, in the aggregate, the voting power of 39,360,036 shares of Common Stock (as such amount may be proportionately adjusted in certain events, including the Reverse Stock Split), which equates to 19.9% of our outstanding shares of Common Stock as of May 7, 2025. If our stockholders approve the Nasdaq Listing Rule Proposals, pursuant to the terms of the Certificate of Designation, such voting cap will fall away and the 20,000,000 shares of Preferred Stock will be entitled to an aggregate of 60,000,000 votes.

In addition, if the Increased Authorized Share Amendment and the Nasdaq Listing Rule Proposals are approved and we issue shares of Common Stock upon conversion of the Preferred Stock and the exercise of the Warrant, the ownership of our Common Stock will be concentrated in a limited number of holders. Assuming (i) the full conversion of the Preferred Stock into Common Stock, (ii) the full cashless exercise of the Warrant for shares of Common Stock and (iii) the issuance of \$35 million in value of our Common Stock (or 700,000,000 of shares of Common Stock at a price of \$0.05 per share) to new investors with no current shareholdings in the Company that are not affiliated with Khosla Ventures and its affiliates (i.e., the minimum share issuance in a Subsequent Financing), Khosla Ventures and its affiliates would beneficially own approximately 48.7% of the outstanding shares of Common Stock, which would represent the largest ownership position of the Company, the investors in such Financing would collectively beneficially own approximately 40.4% of the outstanding shares of Common Stock and no other existing stockholder would beneficially own 5% or more of the outstanding shares of Common Stock. We are actively seeking additional capital and have entered into confidentiality agreements with various potential investors with respect to a Financing. As of the date hereof, we have not entered into any definitive agreements with respect to any Financing and there can be no assurance when, or if, any such definitive agreements may be entered into in respect of a Financing and whether any such investors would be existing stockholders of the Company or new third-party investors. Further, the number of any such potential investors in a Financing is uncertain and to the extent there are a limited number of investors, the concentration of ownership of any single investor would increase. To the extent that Khosla Ventures and its affiliates or any existing Company stockholder participates in any such Financing, their respective ownership position in the Company would increase and ownership in the Company would be further concentrated, with the upper levels of such ownership dependent on the size of any financing and the levels of participation therein. This concentration of share ownership could further limit trading activity in our Common Stock and make it more difficult for stockholders to sell the Common Stock at prevailing market prices or at all. Additionally and so long as Khosla Ventures and its affiliates hold a significant amount of our voting power, they will have significant influence over the outcome of all matters requiring stockholder approval, and they may vote their shares in a manner that may conflict with our interests or those of our other stockholders. See "Proposal 4—The Increased Authorized Share Proposal—Certain Risks and Considerations Associated with the Increased Authorized Share Amendment."

### Required Vote

Approval of the Nasdaq Listing Rule 5635(b) Proposal requires the affirmative vote of a majority of the votes cast. The Preferred Stockholders cannot vote on the Nasdaq Listing Rule 5635(b) Proposal in their capacity as such. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

### Recommendation of the Board

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
"FOR" THE NASDAQ LISTING RULE 5635(b) PROPOSAL (PROPOSAL EIGHT)**

## PROPOSAL 9:

### THE NASDAQ LISTING RULE 5635(d) PROPOSAL

#### Overview

As required by Nasdaq Listing Rule 5635(d), we are asking that our stockholders approve the issuance of shares of Common Stock issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which issuances, independently or when taken together, would be in excess of 19.9% of our outstanding shares of Common Stock.

#### Nasdaq Listing Rule 5635(d)

As a result of being listed for trading on the Nasdaq Stock Market, issuances of our Common Stock are subject to the Nasdaq Listing Rules, including Nasdaq Listing Rule 5635(d). Nasdaq Listing Rule 5635(d) requires stockholder approval in connection with a transaction or series of transactions, other than a public offering, involving the sale, issuance or potential issuance by the issuer of Common Stock (or securities convertible into or exercisable for Common Stock) equal to 20% or more of the Common Stock or 20% or more of the voting power outstanding before the issuance for a price that is less than the lower of (i) the Nasdaq closing price immediately preceding the signing of the binding agreement, or (ii) the average the Nasdaq closing price for the five trading days immediately preceding the signing of the binding agreement.

Under Nasdaq Listing Rules, Nasdaq may aggregate transactions to determine whether stockholder approval is required. If Nasdaq aggregated the shares issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, such issuance would result in the issuance of more than 20% of the Common Stock or more than 20% of the voting power outstanding before the issuance for a price that is lower than the lower of (i) the Nasdaq closing price immediately preceding the signing of the binding agreement, or (ii) the average the Nasdaq closing price for the five trading days immediately preceding the signing of the binding agreement.

#### Background Regarding the Preferred Stock, Warrant, or Financing

For additional information on the Preferred Stock, the Warrant and a Financing, please see “Proposal 4—The Increased Authorized Share Proposal—Background.”

#### Reasons for the Proposal

Under the Purchase Agreement, we are obligated to seek approval from our stockholders with respect to the issuance of shares of Common Stock issuable upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing for purposes of Nasdaq Listing Rule 5635(d). This proposal is intended to satisfy this obligation under the Purchase Agreement and to provide us with greater flexibility to consummate a Financing to obtain necessary capital to operate our business.

We and our Board believe it is therefore advisable and in our and our stockholders’ best interests, and critical to our long-term success, for our stockholders to approve this proposal.

#### Potential Effects of the Nasdaq Listing Rule Proposals

Stockholders should refer to the discussion under “Proposal 8—The Nasdaq Listing Rule 5635(b) Proposal—Potential Effects of the Nasdaq Listing Rule Proposals” when considering this Proposal 9.

**Required Vote**

Approval of the Nasdaq Listing Rule 5635(d) Proposal requires the affirmative vote of a majority of the votes cast. The Preferred Stockholders cannot vote on the Nasdaq Listing Rule 5635(d) Proposal in their capacity as such. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

**Recommendation of the Board**

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
“FOR” THE NASDAQ LISTING RULE 5635(d) PROPOSAL (PROPOSAL NINE)**

## PROPOSAL 10:

### THE ADJOURNMENT PROPOSAL

We are asking you to vote to approve one or more adjournments of the Annual Meeting to a later date or dates if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve any of the Proposals at the time of the Annual Meeting or any adjournment or postponement thereof, or if we do not have a quorum.

If our stockholders approve this Adjournment Proposal, we could adjourn the Annual Meeting and any reconvened session of the Annual Meeting and use the additional time to solicit additional proxies, including proxies from stockholders that have previously returned properly executed proxies voting against approval of any or all of the Proposals.

Among other things, approval of the Adjournment Proposal could mean that if we receive proxies representing an insufficient number of votes in favor of approval of any of the Proposals such that any or all of the Proposals would be defeated, we could adjourn the Annual Meeting without a vote on any or all Proposals and seek to convince stockholders to change their votes to votes in favor of approval of such Proposal(s). Additionally, we may seek to adjourn the Annual Meeting if a quorum is not present.

Our Board believes that it is in the best interests of our company and our stockholders to be able to adjourn the Annual Meeting to a later date or dates if deemed by the Chairperson of the meeting to be necessary or appropriate, including for the purpose of soliciting additional proxies in respect of the approval of any or all of the Proposals if there are insufficient votes to approve any such Proposals at the time of the Annual Meeting or in the absence of a quorum.

#### Required Vote

The affirmative vote of a majority of the voting power of the shares of Voting Stock present, including by means of remote communication, or represented by proxy and entitled to vote on the Adjournment Proposal is required for approval of the Adjournment Proposal (with the Preferred Stock having three votes for each share of Common Stock into which the shares of Preferred Stock held by such Holder are convertible, subject to the voting cap described in the Certificate of Designation (see "Questions and Answers About the Annual Meeting—What voting cap is the Preferred Stock subject to?")). Abstentions will have the same effect as a vote "AGAINST" the Adjournment Proposal. Broker non-votes will have no effect on the vote for the Adjournment Proposal.

Note that, even if this proposal is not adopted, our Bylaws provide that any meeting of stockholders, annual or special, may be adjourned by the chair of the meeting, from time to time (including to address a technical failure to convene or continue a meeting using remote communication), whether or not there is a quorum, to reconvene at the same or some other place.

#### Recommendation of the Board

**THE BOARD UNANIMOUSLY RECOMMENDS THAT THE STOCKHOLDERS VOTE  
"FOR" THE ADJOURNMENT PROPOSAL (PROPOSAL TEN)**

## BOARD OF DIRECTORS AND CORPORATE GOVERNANCE

### General

This section describes key corporate governance guidelines and practices that we have adopted. Complete copies of our Corporate Governance Overview, the charters of the committees of the Board and our Code of Conduct and Ethics described below may be viewed on our website at <https://ir.lanzatech.com/> under the heading “Corporate Governance” and the sub-heading “Documents & Charters.” You can also request a copy of any of these documents free of charge by writing to LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary.

### Board Composition

The Board directs the management of our business and affairs, as provided by Delaware law, and conducts its business through meetings of the Board and its standing committees. There are nine directors currently serving on the Board. Gary Rieschel will not seek re-election at the Annual Meeting and will step down from our Board at the conclusion of the Annual Meeting. Dr. Holmgren serves as chair of the Board. The primary responsibilities of the Board are to provide the Company with risk oversight and strategic guidance and to counsel and direct management. The Board meets on a regular basis and will convene additional meetings, as required.

The Board is generally divided into three classes, with only one class of directors being elected in each year and each class serving a three-year term. Thus, at each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the class whose term is then expiring.

In addition, for so long as the Preferred Stock remains outstanding, the holders of the Preferred Stock are entitled to elect, voting together as a separate class and on an as-converted to Common Stock basis, the Series A Director and to fill any vacancies with respect to the Series A Director. The Series A Director will not be included in any class. As of the date of this proxy statement, the holders of the Preferred Stock had not exercised their right to elect the Series A Director.

### Independence of Directors

As required by Nasdaq listing standards, a majority of the members of the Board must qualify as “independent,” as affirmatively determined by the Board. The Board consults with legal counsel to ensure that its determinations are consistent with all relevant securities and other laws and regulations regarding the definition of “independent,” including those set forth in the applicable Nasdaq listing standards.

We adhere to the rules of Nasdaq in determining whether a director is independent. The Nasdaq listing standards generally define an “independent director” as a person who is not an executive officer or employee, and who does not have a relationship which, in the opinion of the company’s board of directors, would interfere with the exercise of independent judgment in carrying out his or her responsibilities as a director. The Board has determined that Barbara Byrne, Reyad Fezzani, Jill Frizzley, Nigel Gormly, Dorri McWhorter, Jim Messina, Thierry Pilenko and Gary Rieschel are independent directors of the Company. Our independent directors have regularly scheduled meetings at which only independent directors are present.

### Board Leadership Structure and Role in Risk Oversight

The Board recognizes that the leadership structure and combination or separation of the Chief Executive Officer and Chairperson roles is driven by the needs of the Company at any point in time. As a result, no policy exists requiring combination or separation of leadership roles, and our governing documents do not mandate a particular structure. This has allowed the Board the flexibility to establish the most appropriate structure for the Company at any given time.

The Board oversees the risk management activities designed and implemented by its management. The Board does not have a standing risk management committee, but rather executes its oversight responsibility both directly and through its standing committees. The Board also considers specific risk topics, including risks associated with our strategic initiatives, business plans and capital structure. Our management, including our executive officers, are primarily responsible for managing the risks associated with the operation and business of the Company and providing appropriate updates to the Board and the Audit Committee. The Board delegates to the Audit Committee oversight of its risk management process, and the other Board committees also consider risks as they perform their respective committee responsibilities. All committees of the Board report to the Board as appropriate, including, but not limited to, when a matter rises to the level of a material or enterprise risk.

The Board recognizes the importance of appointing a strong lead independent director to maintain a counterbalancing structure to ensure the Board functions in an appropriately independent manner. Jim Messina serves as our lead independent director. Our lead independent director's responsibilities include, among other things:

- presiding at all meetings of the Board in the absence of, or upon the request of, the Chairperson of the Board;
- leading regular executive sessions of the independent members of the Board;
- calling special meetings of the Board as necessary to address important or urgent issues affecting the Company;
- calling meetings of the non-employee or independent members of the Board, with appropriate notice;
- advising the Nominating and Governance Committee and the Chairperson of the Board on the membership of the various Board committees and the selection of committee chairpersons;
- serving as principal liaison between the non-employee and independent members of the Board, as a group, and the Chief Executive Officer and the Chairperson of the Board, as necessary;
- engaging when necessary and appropriate, after consultation with the Chairperson of the Board and the Chief Executive Officer, as the liaison between the Board and our stockholders and other stakeholders; and
- fostering open dialogue and constructive feedback among the independent directors.

#### **Board Meetings and Annual Stockholders Meetings**

We keep our directors informed of our business at meetings and through reports and analyses presented to the Board and the Board committees. Regular communications between our directors and management also occur apart from meetings of the Board and Board committees. During 2024, there were ten meetings of the Board. Each director attended at least 75% of the aggregate number of the total number of meetings of the Board (held during the period for which he or she has been a director) and the total number of meetings of the Board committees on which he or she served (during the periods that he or she served). While we do not have a formal policy requiring our directors to attend stockholder meetings, directors are invited and encouraged to attend all meetings of stockholders. Five of our six directors serving at the time attended last year's annual meeting of stockholders.

#### **Information Regarding Board Committees**

The Board has an Audit Committee, a Nominating and Governance Committee and a Compensation Committee. In addition, from time to time, special committees may be established under the direction of

the Board when necessary to address specific issues. Copies of the charters of the Audit Committee, Nominating and Governance Committee and Compensation Committee are posted on our website at <https://ir.lanzatech.com/> under the heading “Corporate Governance” and the sub-heading “Documents & Charters.” The following table provides current membership and meeting information for 2024 for each of the Audit Committee, Nominating and Governance Committee and Compensation Committee. Neither Dr. Holmgren nor Ms. Frizzley is a member of the Audit Committee, Compensation Committee or the Nominating and Governance Committee. Gary Rieschel will not seek re-election at the Annual Meeting and will step down from the Compensation Committee at the conclusion of the Annual Meeting.

Name	Audit Committee	Compensation Committee	Nominating and Governance Committee
Reyad Fezzani			
Nigel Gormly			
Dorri McWhorter			
Jim Messina			
Barbara Moakler Byrne			
Thierry Pilenko			
Gary Rieschel			
Total Meetings Held in 2024	8	4	5

 - Chairperson  
 - Member

Below is a description of each of the Audit Committee, Nominating and Governance Committee and Compensation Committee. Each of the committees has authority to engage legal counsel or other experts or consultants, as it deems appropriate to carry out its responsibilities. The Board has determined that each member of each committee meets the applicable rules and regulations regarding “independence” and that each member is free of any relationship that would interfere with his or her individual exercise of independent judgment with regard to the Company.

#### **Audit Committee**

The Audit Committee consists of Barbara Byrne, Reyad Fezzani, Nigel Gormly and Dorri McWhorter. Dorri McWhorter serves as the chairperson of the Audit Committee. Each of Barbara Byrne, Reyad Fezzani, Nigel Gormly and Dorri McWhorter is independent under Nasdaq listing standards and Rule 10A-3 of the Exchange Act. Each member of the Audit Committee is financially literate. Each of Barbara Byrne, Nigel Gormly and Dorri McWhorter are “financially sophisticated” under Nasdaq listing rules and qualifies as an “audit committee financial expert” within the meaning of SEC regulations.

The Audit Committee has the following responsibilities, among others, as set forth in the Audit Committee charter:

- selecting a firm to serve as the independent registered public accounting firm to audit the Company’s financial statements;
- ensuring the independence of the independent registered public accounting firm;
- discussing the scope and results of the audit with the independent registered public accounting firm and reviewing, with management and that firm, the Company’s interim and year-end operating results;
- establishing procedures for employees to anonymously submit concerns about questionable accounting or audit matters;

- considering the adequacy of the Company’s internal controls;
- reviewing material related party transactions or those that require disclosure; and
- pre-approving audit and non-audit services to be performed by the independent registered public accounting firm.

### ***Nominating and Governance Committee***

The Nominating and Governance Committee consists of Nigel Gormly, Dorri McWhorter and Jim Messina. Jim Messina serves as the chairperson of the Nominating and Governance Committee. Each of Nigel Gormly, Dorri McWhorter and Jim Messina is independent under Nasdaq listing standards.

The Nominating and Governance Committee has the following responsibilities, among others, as set forth in the Nominating and Governance Committee’s charter:

- identifying and recommending candidates for membership on the Board;
- reviewing our corporate governance framework;
- overseeing the process of evaluating the performance of the Board;
- overseeing the Company’s environmental, social and governance matters; and
- reviewing proposed waivers of our Code of Conduct and Ethics for directors and executive officers.

### ***Compensation Committee***

The Compensation Committee consists of Barbara Byrne, Jim Messina, Thierry Pilenko and Gary Rieschel. Gary Rieschel serves as the chairperson of the Compensation Committee. Each of Barbara Byrne, Jim Messina, Thierry Pilenko and Gary Rieschel is independent under applicable SEC rules and Nasdaq listing standards and qualifies as a “non-employee director” as defined in Rule 16b-3 promulgated under the Exchange Act. Gary Rieschel will not seek re-election at the Annual Meeting and will step down from the Compensation Committee at the conclusion of the Annual Meeting.

The Compensation Committee has the following responsibilities, among others, as set forth in the Compensation Committee’s charter:

- reviewing and approving, or recommending that the Board approve, the compensation of executive officers;
- reviewing and recommending to the Board the compensation of its directors;
- administering the Company’s stock and equity incentive plans;
- reviewing and approving, or making recommendations to the Board with respect to, incentive compensation and equity plans; and
- reviewing our overall compensation philosophy.

## Consideration of Director Nominees

### *Director Qualifications*

There are no specific minimum qualifications that the Board requires to be met by a director nominee recommended for a position on the Board, nor are there any specific qualities or skills that are necessary for one or more members of the Board to possess, other than as are necessary to meet the requirements of the rules and regulations applicable to us. The Nominating and Governance Committee considers a potential director candidate's experience, areas of expertise and other factors relative to the overall composition of the Board and its committees, including the following characteristics: experience, judgment, commitment (including having sufficient time to devote to the Company), skills and expertise appropriate for the Company. In assessing potential directors, the Nominating and Governance Committee may consider the current needs of the Board and the Company to maintain a balance of knowledge, experience and capability in various areas.

### *Stockholder Nominations*

The Nominating and Governance Committee will consider director candidates recommended by our stockholders. The Nominating and Governance Committee does not intend to alter the manner in which it evaluates candidates, including the criteria set forth above, based on whether a candidate was recommended by a stockholder or not. Stockholders who wish to recommend individuals for consideration by the Nominating and Governance Committee to become nominees for election to the Board at an annual meeting of stockholders must do so by delivering a written recommendation to the Nominating and Governance Committee c/o LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary, by the time period set forth in our Bylaws. See "Stockholder Proposals and Director Nominations."

Each written recommendation must set forth, among other information as set forth in our Bylaws:

- the proposed nominee's name, age, business address and residence address;
- the proposed nominee's principal occupation or employment;
- the class or series and number of shares of capital stock of the Company that are owned beneficially or of record by the proposed nominee;
- any other information relating to the proposed nominee that would be required to be disclosed in a proxy statement or other filings required to be made in connection with the solicitation of proxies for election of directors pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder;
- the name and record address of the stockholder submitting the recommendation as they appear on our books and the name and address of the beneficial owner, if any, on whose behalf the nomination is made;
- the class or series and number of shares of capital stock of the Company that are owned beneficially and of record by the stockholder submitting the recommendation and the beneficial owner, if any, on whose behalf the nomination is made;
- a description of all arrangements or understandings relating to the nomination to be made by the stockholder submitting the nomination among such stockholder, the beneficial owner, if any, on whose behalf the nomination is made, each proposed nominee and any other person or persons (including their names);

- a representation that the stockholder submitting the recommendation (or a qualified representative of such stockholder) intends to appear in person or by proxy at the meeting to nominate the proposed nominee;
- a representation whether such stockholder intends or is part of a group which intends (i) to solicit proxies or votes in support of such proposed nominees or nomination in accordance with Rule 14a-19 promulgated under the Exchange Act, and (ii) to deliver a proxy statement and/or form of proxy to holders of at least the percentage of the Company's outstanding capital stock required to approve or adopt the proposal or elect the proposed nominee;
- the names and addresses of other stockholders (including beneficial and stockholders of record) known by the proposing stockholder and beneficial owner, if any, to support the nomination or other business, and to the extent known, the number of shares of the Company's Common Stock owned beneficially or of record by such other stockholders; and
- any other information relating to such stockholder and the beneficial owner, if any, on whose behalf the nomination is made that would be required to be disclosed in a proxy statement or other filings required to be made in connection with solicitations of proxies for election of directors pursuant to Section 14 of the Exchange Act and the rules and regulations promulgated thereunder.

Such notice must be accompanied by a written consent of each proposed nominee to being named as a nominee and to serve as a director if elected. Stockholders are advised to review our Bylaws, which contain the full requirements with respect to director nominations.

If a proposed director candidate is recommended by a stockholder in accordance with the procedural requirements discussed above, the Company's Corporate Secretary will provide the foregoing information to the Nominating and Governance Committee.

### ***Evaluating Nominees for Director***

Our Nominating and Governance Committee considers director candidates that are suggested by members of the committee, other members of the Board, members of management, advisors and our stockholders who submit recommendations in accordance with the requirements set forth in our Bylaws, as described above. The Board has in the past engaged a third-party search firm to identify potential candidates for consideration by the Nominating and Governance Committee and election to the Board. Since the date of the Company's 2024 annual meeting of stockholders, the Company appointed three new directors to its Board. Each of Thierry Pilenko and Reyad Fezzani were recommended to the Board and reviewed for fitness to the Board by a professional search firm. The Nominating and Governance Committee may, in the future, retain third-party search firms to identify Board candidates on terms and conditions acceptable to the Nominating and Governance Committee to assist in the process of identifying or evaluating director candidates. The Nominating and Governance Committee evaluates all nominees for director using the same approach whether they are recommended by stockholders or other sources. The Nominating and Governance Committee reviews candidates for director nominees in the context of the current composition of the Board and committees, the operating requirements of the Company and the long-term interests of our stockholders. In conducting this assessment, the Nominating and Governance Committee considers the director nominee's qualifications, skills and such other factors as it deems appropriate given the current needs of the Board, the committees and the Company, to maintain a balance of knowledge, experience and capability. In the case of incumbent directors whose terms of office are set to expire, the Nominating and Governance Committee reviews such directors' overall service to the Board, the committees and the Company during their term, including the number of meetings attended, level of participation, quality of performance and any other relationships and transactions that might impair such directors' independence. In the case of new director candidates, the Nominating and Governance Committee will also determine whether the nominee must be independent for Nasdaq purposes, which determination will be based upon applicable Nasdaq listing standards and

applicable SEC rules and regulations. Although we do not have a formal diversity policy, when considering diversity in evaluating director nominees, the Nominating and Governance Committee focuses on whether the nominees can contribute varied perspectives, skills, experiences and expertise to the Board.

The Nominating and Governance Committee will evaluate the proposed director's candidacy, including proposed candidates recommended by stockholders, and recommend whether the Board should nominate the proposed director candidate for election by our stockholders.

### **Stockholder Communications with the Board**

Any stockholder or interested party who desires to contact the Board, or specific members of the Board, may do so by writing to: LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary. All such communications will be initially received and processed by the office of our Corporate Secretary. Communications concerning accounting, audit, internal accounting controls and other financial matters will be referred to the Chair of the Audit Committee. Other matters will be referred to the Board, the non-employee directors or individual directors, as appropriate.

The Board has instructed the Corporate Secretary to review all communications so received and to exercise his discretion not to forward to the Board correspondence that is inappropriate such as business solicitations, advertising, routine business matters or personal grievances. However, any director may at any time request the Corporate Secretary to forward any and all communications received by the Corporate Secretary but not forwarded to the directors.

### **Code of Conduct and Ethics**

We have adopted a Code of Conduct and Ethics that applies to all officers, directors and employees. The Code of Conduct and Ethics codifies the business and ethical principles that govern all aspects of our business, reflecting our commitment to this culture of honesty, integrity and accountability. In addition to following the Code of Conduct and Ethics, officers, directors and employees are expected to seek guidance in situations where there is a question regarding compliance issues, whether with the letter or the spirit of our policies and applicable laws. Our Code of Conduct and Ethics applies to all of the executive officers, directors and employees of LanzaTech and its subsidiaries. We will provide, without charge, upon request, copies of the Code of Ethics. Our Code of Conduct and Ethics is available on our website. The Company's website and the information contained on, or that can be accessed through, such website is not deemed to be incorporated by reference in, and are not considered part of, this proxy statement. The full text of our Code of Conduct and Ethics has been posted on our website at <https://ir.lanzatech.com/> under the heading "Corporate Governance" and the sub-heading "Documents & Charters." We expect that any amendments to the code, or any waivers of its requirements, will be disclosed on our website.

### **Insider Trading Policy**

We have adopted an insider trading policy governing the purchase, sale, and/or other disposition our securities by directors, officers and employees, or by LanzaTech itself, designed to promote compliance with insider trading laws, rules and regulations and with the listing standards of Nasdaq applicable to LanzaTech. A copy of the Company's insider trading policy was filed as an exhibit to our annual report on Form 10-K for the year ended December 31, 2024.

### **Hedging, Short-Selling and Pledging Policy**

We have adopted a policy that prohibits our employees and directors from purchasing financial instruments that are designed to hedge or offset any fluctuations in the market value of our equity securities they hold, purchasing our shares on margin and selling any securities of the Company "short." Additionally, the policy prohibits our directors and employees from borrowing against any account in

which our equity securities are held or pledging our securities as collateral for a loan. The policy also prohibits our directors and employees from engaging in derivative transactions involving our securities. These prohibitions apply whether or not such equity securities were acquired through our equity compensation programs.

## **Cybersecurity**

### ***Risk Management and Strategy***

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

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

### ***Governance Related to Cyber Security Risks***

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

### ***Delinquent Section 16(a) Reports***

Section 16(a) of the Exchange Act requires our directors, executive officers and persons who own more than 10% of our outstanding shares of Common Stock to file with the SEC reports of their ownership and changes in their ownership of our Common Stock. Directors, executive officers and greater-than-ten percent stockholders are also required to furnish us with copies of all ownership reports they file with the SEC. To our knowledge, based solely on a review of the copies of such reports furnished to us and representations that no other reports were required, we believe that during fiscal 2024 our executive officers, directors, and greater-than-10% stockholders timely filed all reports required by Section 16(a), except for the following reports:

- (i) Barbara Byrne, Nigel Gormly, Dorri McWhorter, Jim Messina, and Gary Rieschel did not timely report on Form 4 shares acquired pursuant to restricted stock units that vested on February 8, 2024;

- (ii) each of our executive officers during fiscal 2024, including our CEO, did not timely report on Form 4 shares acquired pursuant to restricted stock units that vested on March 6, 2024;
- (iii) Freya Burton did not timely report on Form 4 two transactions related to the exercise of stock options on March 4 and 5, 2024; and
- (iv) Thierry Pilenko and Sushmita Koyanagi did not timely file a Form 3.

## DIRECTOR COMPENSATION

### Non-Employee Director Compensation

Non-employee director compensation is determined by the Board, based on the recommendation of the Compensation Committee. The Board periodically reviews non-employee director compensation to determine if changes are needed, including by comparing it to non-employee director compensation at peer companies.

The Board has adopted a non-employee director compensation plan pursuant to which each non-employee director is entitled to receive annual cash compensation of \$60,000 and annual incentive compensation in the form of time-vested restricted stock units (“RSUs”) worth \$100,000 for his or her service on the Board. For 2024, the number of RSUs granted was based on the 5-day VWAP price as of April 4, 2024, the date of the award, of \$100,000. Additionally, the lead independent director is entitled to additional annual cash compensation of \$30,000, and each member of the Audit Committee, the Compensation Committee, and the Nominating and Governance Committee is entitled to annual cash compensation of \$10,000, \$7,500, and \$5,000, respectively. The chairperson of each such committee is entitled to additional annual cash compensation of \$10,000, \$7,500, and \$5,000, respectively.

The following table provides summary information concerning the compensation of our directors for fiscal 2024. Mr. Fezzani, Mr. Pilenko and Ms. Frizzley did not serve on the Board during fiscal 2024 and therefore are not included in the table below.

Name	Fees earned or paid in cash (\$)	Stock Awards <sup>(1)</sup> (\$)	Total Compensation (\$)
Barbara Moakler Byrne	\$ 77,500	\$ 100,648 <sup>(2)</sup>	\$ 178,148
Nimesh Patel	15,000 <sup>(3)</sup>	—	15,000
Nigel Gormly	75,000	100,648 <sup>(4)</sup>	175,648
Dorri McWhorter	85,000	100,648 <sup>(5)</sup>	185,648
Jim Messina	107,500	100,648 <sup>(6)</sup>	208,148
Gary Rieschel	\$ 75,000	\$ 100,648 <sup>(7)</sup>	\$ 175,648

#### Footnotes

- (1) The amounts reflect the grant date fair value of RSUs, calculated in accordance with FASB ASC Topic 718 based on the market price of the shares subject to the award on the date of grant.
- (2) As of December 31, 2024, 32,467 of such stock awards were unvested.
- (3) Mr. Patel resigned on April 25, 2024, and so received partial cash compensation in 2024.
- (4) As of December 31, 2024, 32,467 of such stock awards were unvested.
- (5) As of December 31, 2024, 32,467 of such stock awards were unvested.
- (6) As of December 31, 2024, 32,467 of such stock awards were unvested.
- (7) As of December 31, 2024, 32,467 of such stock awards were unvested.

## EXECUTIVE OFFICERS

The following table sets forth certain information about our executive officers. A summary of the background and experience of each of our executive officers is set forth after the table. For the biographical information about Dr. Jennifer Holmgren, see “Proposal 1—Election of Directors—Incumbent Class I Directors with Terms Expiring in 2027” above.

Name	Age	Position(s)
Jennifer Holmgren, Ph.D.	64	Chief Executive Officer and Director
Sushmita Koyanagi	47	Chief Financial Officer
Freya Burton	44	Chief Sustainability Officer
Robert Conrado, Ph.D.	42	Chief Technology Officer
Aura Cuellar	47	President
Amanda Koenig Fuisz	46	Interim General Counsel
Michael Heraty	56	Chief Accounting Officer
Michael Köpke, Ph.D.	44	Chief Innovation Officer
Ryan Replogle	43	Deputy General Counsel and Corporate Secretary
Zarath Summers, Ph.D.	42	Chief Science Officer
Chad Thompson	55	Chief People Officer

**Sushmita Koyanagi** was promoted to Chief Financial Officer effective June 2, 2025. Prior to that, she served as our Chief Accounting Officer since December 2024. Previously, Ms. Koyanagi served in various senior financial roles in Equity LifeStyle Properties, a leading owner and operator of manufactured home communities, RV resorts and campgrounds, from June 2021 to December 2024, JP Morgan Chase from October 2013 to June 2021 and Deloitte from July 2007 to October 2013. Ms. Koyanagi holds a master’s degree in Accounting from Victoria University in Melbourne Australia. Ms. Koyanagi is also a certified public accountant.

**Freya Burton** has served as our Chief Sustainability Officer since 2016. Ms. Burton served in various other roles at the Company from 2007 through 2016, including roles in communications, government relations, human resources and research and development. Ms. Burton holds an M.A. from Corpus Christi College at the University of Cambridge.

**Robert Conrado, Ph.D.** has served as our Chief Technology Officer since March 2024 and previously served as Vice President of Engineering Design and Development from October 2018. Dr. Conrado has also held various engineering leadership roles at the Company since joining in 2013, serving as Director of Engineering Design and Development from 2016 to October 2018 and Manager of Engineering Design and Development from 2015 to 2016. Prior to his tenure at the Company, Dr. Conrado was a founding

Senior Fellow at the Advanced Research Projects Agency - Energy (ARPA-E) within the U.S. Department of Energy. Dr. Conrado holds a Ph.D. from Cornell University in Chemical and Biomolecular Engineering and a B.E. from Dartmouth College in Biochemical Engineering.

**Aura Cuellar** has served as President since March 2024. Prior to that, Ms. Cuellar served as Executive Vice President of Growth and Strategic Projects from May 2023 to February 2024. Prior to joining the Company, Ms. Cuellar held various senior executive global roles at Shell plc, a multinational energy and petrochemical company, including Vice President of Energy Transition for Shell plc in the United States from July 2021 to April 2023 and Head of Projects and Turnarounds in The Netherlands from June 2016 to June 2021. Ms. Cuellar also serves as Honorary Consul to the Kingdom of The Netherlands in Houston where she contributes to addressing the shared challenges of climate adaptation and resilience, health and vitality, sustainable mobility, and the energy transition. Originally from Colombia, Ms. Cuellar holds a B.S. in Environmental and Civil Engineering from Seattle University and an MBA from Western Washington University, and has completed a program in Executive General Management at INSEAD and the Women on Boards Program at Harvard University.

**Amanda Koenig Fuisz** was promoted to Interim General Counsel effective June 13, 2025. Prior to that, Ms. Fuisz served as Deputy General Counsel since April 2025, and prior to that as Associate General Counsel since joining the Company in August 2023. Prior to joining the Company, she served as Associate General Counsel, Product & IP from October 2021 to May 2023 and Senior Counsel from December 2020 to October 2021 at Datadog, a monitoring platform for cloud applications. She held various legal roles at Elastic, a software development company, from May 2019 to November 2020 and at NASA from October 2010 to May 2019. She began her career as an associate at McDermott Will & Emery LLP. Ms. Fuisz holds a Juris Doctor degree from the University of Virginia Law School, a Master's degree in Bioethics from the University of Virginia and a Bachelor of Science degree in Foreign Affairs from Georgetown University.

**Michael Heraty** was promoted to Chief Accounting Officer effective June 2, 2025. Prior to that, Mr. Heraty served as Vice President – Internal Audit & SOX Compliance since joining the Company in July 2023. Prior to joining the Company, he served as Vice President, Financial Planning & Analysis (Intelsat) from December 2020 to July 2021 and Vice President – Internal Audit from March 2014 to December 2020 at Gogo, a provider of in-flight broadband internet service and other connectivity services. The Gogo commercial aviation division was acquired by Intelsat in the fourth quarter of 2020, and Mr. Heraty transferred to Intelsat as part of the transaction. Prior to that, he served as Senior Director – Internal Audit at Whirlpool from January 2012 to March 2014 and Director – Internal Audit at Verizon Communications from July 2004 to January 2012. He is a registered CPA in the State of Illinois, and his educational background includes a Master's in Business Administration from The University of Chicago and a Bachelors of Business Administration in Accounting from The University of Notre Dame.

**Michael Köpke, Ph.D** has served as Chief Innovation Officer since July 2023, and previously served as our Vice President Synthetic Biology from January 2020 to July 2023. From 2009 through January 2020, Dr. Köpke held numerous positions at the Company, including Director Synthetic Biology, Team Leader Synthetic Biology and Research Scientist. Dr. Köpke serves as an adjunct faculty at Northwestern University and council member at the Engineering Biology Research Consortium, where he chairs the roadmapping working group. Dr. Köpke holds a B.S. in Biology and a Ph.D. in Biotechnology from University of Ulm, and is an awardee of the Presidential Green Chemistry Challenge award for Greener Synthetic Pathways.

**Ryan Replogle** was promoted to Deputy General Counsel and Corporate Secretary effective June 13, 2025. Prior to that, Mr. Replogle served as Deputy General Counsel since March 2025, and prior to that as Associate General Counsel since joining the Company in October 2018. Prior to joining the Company, he served as Senior Counsel at GTI Energy, an energy technology development company, from February 2017 to September 2018. Earlier, he was an associate at Olshan Frome Wolosky LLP, headquartered in New York, New York, advising on major business transactions, securities compliance, and corporate governance matters, and subsequently served as an associate with Beckman Lawson, LLP, in Fort Wayne, Indiana, advising clients on various corporate, commercial, and regulatory matters. He holds a Juris Doctor degree from Washington University in St. Louis and a Bachelor of Science degree in Computer Information Systems from the Kelley School of Business at Indiana University.

**Zarath Summers, Ph.D.** has served as our Chief Science Officer since July 2023. Prior to joining the Company, Dr. Summers served as Head of BioSciences at ExxonMobil from 2019 to 2022, a multinational oil and gas corporation, where she worked to drive the formation of a biosciences division and the development of a corporate research strategy on Nature Based Solutions and worked to understand the impacts of subsurface microorganisms on underground CO2 sequestration. From 2013 to 2022, Dr. Summers held a variety of scientific and leadership positions at ExxonMobil, all focused on helping to provide biological solutions for navigating the energy transition. Dr. Summers holds a B.S. in Biology from California State University Northridge and a Ph.D in Microbiology from the University of Massachusetts and completed her postdoctoral work at the University of Minnesota.

**Chad Thompson** has served as our Chief People Officer since October 2022. In this role, Mr. Thompson oversees the execution of our global people strategy to support the Company's global operations. Prior to joining the Company, Mr. Thompson held various human resources leadership positions during his 24-year tenure at Chevron, a multinational energy corporation. Mr. Thompson holds a BSc. in Management from the University of the West Indies, Barbados and an M.A. in Organizational Management from Fielding Institute in Santa Barbara, California.

## EXECUTIVE COMPENSATION

### Smaller Reporting Company

We are a “smaller reporting company” as defined under applicable SEC rules. As a smaller reporting company, we are not required to include in this Proxy Statement a Compensation Discussion and Analysis section and are permitted to include scaled disclosure with respect to certain executive compensation information otherwise required by Item 402 of Regulation S-K.

### Named Executive Officers

Our 2024 named executive officers (“NEOs”), and their corporate titles as of December 31, 2024, are as follows:

#### 2024 NAMED EXECUTIVE OFFICERS

Name	Title
Jennifer Holmgren, Ph.D.	Chief Executive Officer
Joseph Blasko	Former General Counsel and Corporate Secretary
Aura Cuellar	President

#### Summary Compensation Table

The following table presents information regarding the compensation awarded to, earned by or paid to our named executive officers during the fiscal years ended December 31, 2024 and 2023.

Name and Principal Position	Year	Salary (\$)	Bonus (\$)	Stock Awards <sup>(1)</sup> (\$)	Option Awards <sup>(2)</sup> (\$)	All Other Compensation <sup>(3)</sup> (\$)	Total (\$)
Jennifer Holmgren, Ph.D. <i>Chief Executive Officer</i>	2024	771,923	-	1,509,737	2,780,037	9,333	5,071,031
	2023	733,846	150,000	5,221,000	2,748,847	7,704	8,861,397
Joseph Blasko <sup>(4)</sup> <i>Former General Counsel and Corporate Secretary</i>	2024	411,692	200,000 <sup>(5)</sup>	251,621	463,340	13,685	1,340,338
	2023	390,773	247,737	333,500	458,140	2,148	1,432,298
Aura Cuellar <i>President</i>	2024	381,608	125,000 <sup>(6)</sup>	251,621	463,340	7,463	1,229,031
	2023	213,608	271,815	248,400	274,883	3,998	1,012,704

(1) Amounts in this column represent the grant date fair value of RSUs and performance share awards granted in the fiscal year indicated, disregarding any estimate of forfeitures related to time-based vesting. Generally, the expense for these awards is recognized over the vesting or performance period. The valuation models and assumptions applicable to these grant date fair values are set forth in Note 14, Share-Based Compensation, to our audited financial statements included in our 2024 Annual Report for the year ended December 31, 2024. The amounts shown may not correspond to the actual value that will be realized by the executive officers. The grant date fair values of the performance shares are based upon the grant date probable outcomes of satisfying the performance conditions stipulated in the grants. For additional information on awards made in fiscal 2024, see the Outstanding Equity Awards Table.

(2) Amounts in this column represent the grant date fair value of stock options granted in the fiscal year indicated, disregarding any estimate of forfeitures related to time-based vesting. Generally, the expense for these awards is recognized over the vesting or performance period. The valuation models and assumptions applicable to these grant date fair values are set forth in Note 14, Share-Based Compensation, to our audited financial statements included in our 2024 Annual Report. The amounts shown may not correspond to the actual value that will be realized by the executive officers. For additional information on awards made in fiscal 2024, see the Outstanding Equity Awards Table.

(3) Reflects matching contributions under the Company’s 401(k) retirement savings plan and employer-paid premiums on group term life insurance.

(4) Mr. Blasko resigned from his position as General Counsel and Corporate Secretary effective as of June 13, 2025.

(5) Amount represents the second of two installments of Mr. Blasko’s signing bonus, paid on January 8, 2024, as provided by his Executive Employment Agreement.

(6) Amount represents the last of three installments of Ms. Cuellar’s signing bonus, paid on May 13, 2024, as provided by her Executive Employment Agreement.

## **Narrative to Summary Compensation Table**

We are committed to providing a fair and competitive executive compensation and benefits package that will attract, retain and reward all members of our high-performing executive team. We are also committed to providing a total compensation package that ties personal earnings to the attainment of company milestones, and the long-term achievement of our financial and operational goals.

Our executive compensation and benefit plans strive to be:

- *Transparent*: Our executives should be able to understand how we establish their pay.
- *Flexible*: We support a geographically diverse organization to accommodate differences and changes in job requirements and job markets.
- *Externally Competitive*: Our compensation and benefit decisions reflect pay and contribution rates for comparable jobs within the relevant labor market. Overall, we aim to provide total annual cash compensation opportunity near the market median for similar benchmark positions.
- *Internally Comparable*: We will establish pay guidelines to ensure that similar executive roles jobs have similar long-term earning opportunities.
- *Aligned With Performance*: We reward both corporate and individual performance through salary increases, bonuses and long-term incentives, with a particular focus on sharing in long-term company value gains.

*Cash Compensation*: Generally, we position total cash compensation opportunity (defined as annual base salary plus annual target AIP opportunity) at or below the median of the selected market for talent. Executives who are newly promoted into their roles may have target cash compensation set below the external market median, with the opportunity to grow compensation to the median as the employee gains experience in the role. Executives in highly skilled and/or in-demand roles may be positioned above median in limited circumstances.

*Long-Term Incentives (“LTI”)*: All executives participate in an equity-based LTI plan. LTI value growth aligns with growth in the valuation and total stockholder return that we provide to our stockholders. Executives have the opportunity to earn total direct compensation levels above median if target performance goals are met or exceeded and value is created for our stockholders through increases to our stock price.

*Executive Benefits*: Executives participate in the Company’s broad-based benefit plans (retirement and health & welfare). Other than supplemental life and AD&D insurance with a higher multiple of salary in the event of death or disability, we offer no executive-only benefits.

## **Processes and Procedures for the Consideration and Determination of Executive and Director Compensation**

### ***Role of the Compensation Committee***

Our Compensation Committee has primary responsibility for overseeing and approving our executive compensation plans. The responsibilities of our Compensation Committee include, but are not limited to:

- Review and approval of CEO compensation, including the selection of appropriate goals and objectives to evaluate CEO performance;
- Review and approval of other executive officer compensation, including our NEOs;

- Review and approve the terms of offer letters, employment agreements, severance agreements, change in control agreements, indemnification agreements, other material agreements and modifications to any of the above between the Company and its executive officers;
- Review and approve the selection of the companies in the Company's peer group;
- Review and approve incentive compensation plans for executive officers, including review of equity incentives and individual grants of equity incentives;
- Approve, administer and/or amend any employee benefit plans and executive perquisite plans;
- Oversee and at least annually review management's assessment of major risk exposures associated with the Company's compensation policies and practice and the mitigation thereof;
- Review and assess the independence of any potential compensation consultant, outside legal counsel, or other advisor to the Committee;
- Review and recommend to the full Board the compensation paid to non-employee directors;
- Periodically review the Company's overall compensation philosophy; and
- Consider the results of stockholder advisory votes on executive compensation ("Say on Pay") and the frequency of such votes.

#### ***Role of our Chief Executive Officer***

As Chief Executive Officer, Dr. Holmgren reviews the performance of her direct reports and other executive officers and recommends changes to executive officer pay for approval by the Compensation Committee. Dr. Holmgren also recommends to the Compensation Committee the goals used in the AIP and advises on the structure and target values of the LTI plan for all Company employees. Dr. Holmgren does not make any recommendations to the Compensation Committee regarding her own compensation.

#### ***Role of the Independent Compensation Consultant***

The Compensation Committee is permitted under its charter to engage an independent compensation consultant to advise the committee on the design of our executive compensation. To date, it has not engaged an independent compensation consultant. The Compensation Committee previously engaged Willis Towers Watson ("WTW") to advise on executive pay, director pay and incentive plan designs. WTW has not provided any other professional services to us to date outside of the executive pay, director pay and incentive compensation plan design assessments. Further, WTW was compensated on a fee-based structure and no portion of any payment made to them was dependent upon achieving a certain result or was otherwise commission-based. WTW's engagement ended in January, 2024.

#### **Executive Employment Agreements and Other Arrangements**

We have entered into employment agreements with each of our named executive officers (each, an "Employment Agreement," and collectively, the "Employment Agreements.")

#### ***Base salary***

The Employment Agreements provide for each named executive officer's at-will employment. As of December 31, 2024, the annual base salaries for Dr. Holmgren, Mr. Blasko and Ms. Cuellar were \$771,923, \$411,692 and \$381,608, respectively (amounts may be adjusted by the Board from time to time).

### **Annual cash bonus**

The named executive officers are eligible for a discretionary annual cash bonus determined in accordance with the Company's bonus policy as in effect from time to time. Dr. Holmgren, Mr. Blasko and Ms. Cuellar have target cash bonuses of 100%, 60% and 50%, respectively, as a percentage of their base salary. With respect to fiscal year 2024, no cash bonus payouts were made to any of the named executive officers.

### **Equity awards**

Subject to the approval of the Board, each named executive officer is eligible for discretionary equity awards under their Employment Agreement and the 2023 Plan. In 2024, we made long-term incentive awards pursuant to the 2023 Plan using two different equity vehicles: stock options and restricted stock units. The stock options and restricted stock units granted in April 2024 vest in three equal installments, with such first installment time vesting on March 6, 2025. The stock options have a strike price equal to the closing price of our common shares on the grant date, and a ten-year term.

### **Potential Payments Upon Termination or Change in Control**

In the event the named executive officer's employment is terminated without "Cause" or the executive resigns for "Good Reason" (in each case as defined in the Employment Agreements), the Company is obligated to pay the executive: (i) a lump sum payment equal to 12 months of their then-current base salary (18 months in the case of Dr. Holmgren); (ii) an annual bonus (if any) for the year in which the termination occurs, equal to the annual bonus the executive would have received for that year based on actual performance and pro-rated based on the number of days the executive was employed during the relevant year; and (iii) if the executive is eligible for and timely elects COBRA coverage, up to 12 months (18 months in the case of Dr. Holmgren) of the portion of the executive's COBRA premium attributable to the employer contributions the Company would have paid had the executive remained employed. Additionally, if the executive's employment is terminated without Cause or for Good Reason during the period beginning 30 days prior to a "Corporate Transaction" (as defined in the Employment Agreements) and ending 24 months following a Corporate Transaction, the amount of the lump sum payment described in clause (i) will be increased from 12 months to 18 months of the executive's then-current base salary (24 months in the case of Dr. Holmgren). In addition, following: (A) a termination without "Cause" a resignation for "Good Reason" a termination on account of disability or a termination on or after becoming "Retirement Eligible" (defined under the awards granted under the 2023 Plan as when a participant is at least 60 and the sum of the participant's age and years of continuous service is 70), then a portion of the performance share units granted under the 2023 Plan will be deemed to have satisfied the time-based vesting component in an amount determined based on the product of (I) the number of performance share units that would have satisfied the time-based vesting condition on each of the applicable vesting dates and (II) a fraction equal to the amount of months that have passed from the vesting commencement date to the date of termination over the applicable denominators set forth in the award agreements, (B) a termination on account of disability or a termination on or after becoming Retirement Eligible, then a portion of the stock options and restricted stock units granted under the 2023 Plan will be deemed to have vested in an amount determined based on the product of (I) the number of stock options and restricted stock units that would have vested on each of the applicable vesting dates and (II) a fraction equal to the amount of months that have passed from the vesting commencement date to the date of termination over the applicable denominators set forth in the award agreements, and (C) a termination without "Cause" or a resignation for "Good Reason", that occurs during the period beginning 30 days prior to a Corporate Transaction and ending 24 months following a Corporate Transaction, all of the outstanding equity awards held by our executive officers pursuant to the 2023 Plan will vest in full (with any performance conditions on performance share units being treated as waived) and, with respect to Dr. Holmgren, 50% of any stock options granted under our prior long-term incentive plans which are outstanding as of the closing (the "Closing") of the Business Combination will also immediately vest.

On February 8, 2023, the Board adopted an executive severance plan (the "Severance Plan") which became effective upon the completion of the Closing. Under the Severance Plan, qualifying employees

who satisfy conditions set forth in the plan will be entitled to receive (i) 12 months' base salary, in the case of a Qualifying Termination, or 18 months' base salary, in the case of a Corporate Transaction Termination (in each case, as defined in the Severance Plan), (ii) an annual bonus (if any) for the year in which the termination occurs, equal to the annual bonus the executive would have received for that year based on actual performance and pro-rated based on the number of days the executive was employed during the relevant year; and (iii) if the executive is eligible for and timely elects COBRA coverage, up to 12 months (18 months in the case of Dr. Holmgren) of the portion of the executive's COBRA premium attributable to the employer contributions the Company would have paid had the executive remained employed. With respect to clause (i), Dr. Holmgren will be entitled to receive 18 months' base salary or 24 months' base salary in the case of a Qualifying Termination or a Corporate Transaction Termination, respectively. Employees having a seniority level of vice president or higher who are designated in writing by the compensation committee of the Board, and who also meet certain other specified criteria will be eligible to participate in the Severance Plan. Our named executive officers' severance benefits under the Severance Plan are identical to what is described in clauses (i) through (iii) in the paragraph above.

## Outstanding Equity Awards as of December 31, 2024

The following table provides information regarding outstanding equity awards held by our named executive officers as of December 31, 2024.

Name	Grant date	Option Awards				Stock Awards			
		Number of securities underlying unexercised options (#) exercisable	Number of securities underlying unexercised options (#) unexercisable	Option exercise price (\$)	Option expiration date	Performance-based Restricted Stock Units (PSUs)		Restricted Stock Units (RSUs)	
						Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$) <sup>(1)</sup>	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$) <sup>(1)</sup>
Jennifer Holmgren, Ph.D.	9/20/2017	984,302	–	\$1.38	9/20/2027				
	6/26/2020 <sup>(7)</sup>	844,794	211,199	\$1.07	6/26/2030				
	5/2/2023 <sup>(2)</sup>	381,679	763,359	\$3.28	5/2/2033				
	4/5/2024 <sup>(6)</sup>	–	1,219,512	\$3.10	4/5/2034				
	5/2/2023 <sup>(3)</sup>					2,600,000	\$3,562,000		
	5/2/2023 <sup>(4)</sup>							200,000	\$274,000
Joseph Blasko <sup>(8)</sup>	4/5/2024 <sup>(5)</sup>							487,012	\$667,206
	5/2/2023 <sup>(2)</sup>	63,613	127,226	\$3.28	5/2/2033				
	4/5/2024 <sup>(6)</sup>	–	203,252	\$3.10	4/5/2034				
	5/2/2023 <sup>(3)</sup>					100,000	\$137,000		
	5/2/2023 <sup>(4)</sup>							33,334	\$45,668
Aura Cuellar	4/5/2024 <sup>(5)</sup>							81,168	\$111,200
	5/2/2023 <sup>(2)</sup>	38,167	76,336	\$3.28	5/2/2033				
	4/5/2024 <sup>(6)</sup>	–	203,252	\$3.10	4/5/2034				
	5/2/2023 <sup>(3)</sup>					90,000	\$123,300		
	5/2/2023 <sup>(4)</sup>							90,000	\$123,300
	4/5/2024 <sup>(5)</sup>							81,168	\$111,200

- (1) Based on the December 31, 2024 value of \$1.37 per share, which was the latest appraisal received by the Company for purposes of administering its equity incentive plans. This appraised value is subject to certain limitations, qualifications and assumptions and may not reflect the fair value of the Company's Common Stock, is presented for illustrative purposes only and should not be relied on for any reason.
- (2) The stock options granted on May 2, 2023 vest in three equal annual installments, with such first installment time vesting on March 6, 2024. The stock options have a ten-year term.
- (3) The performance share units granted on May 2, 2023 are contingent on satisfying both a performance-based and a time-based vesting condition. The performance-based vesting condition is satisfied if the average closing price of the Company's stock reaches \$11.50 using any 20-day look-back period, which period may begin no earlier than 151 days following February 8, 2023. The time vesting condition is met in three equal annual installments, with such first installment time vested on February 10, 2024. Both vesting conditions must be met by February 10, 2028, or else the performances share units will be forfeited. As of December 31, 2024, the performance-based condition had not been achieved.
- (4) The restricted stock units granted on May 2, 2023 vest in three equal annual installments, with such first installment time vesting on March 6, 2024.
- (5) The restricted stock units granted on April 5, 2024 vest in three equal annual installments, with such first installment time vesting on March 6, 2025.
- (6) The stock options granted on April 5, 2024 vest in three equal annual installments, with such first installment time vesting on March 6, 2025. The stock options have a ten-year term.
- (7) The stock options granted on June 26, 2020 fully vested in three equal annual installments on January 1, 2023, January 1, 2024 and January 1, 2025. The stock options have a ten-year term.
- (8) Mr. Blasko resigned from his position as General Counsel and Corporate Secretary effective as of June 13, 2025.

## Pension Plan Benefits and Defined Contribution Plans

The Company does not have a pension plan, defined benefit plan or other plan that provides for payments or benefits to the named executive officers at, following, or in connection with retirement.

## Policies and Practices Related to the Grant of Certain Equity Awards Close in Time to the Release of Material Non-public Information

The Board's and the Compensation Committee's long-term incentive award review and approval process typically occurs in connection with the regularly scheduled meeting of the Board in the first quarter of the fiscal year, generally scheduled at least several months in advance. The Board and the Compensation Committee do not schedule the approval or granting of awards of options in anticipation of the release of material non-public information ("MNPI") and do not take MNPI into account when determining the timing and terms of such awards, and the Company does not time the release of MNPI based on the grant dates of awards of options. The Company has not timed the disclosure of MNPI for the purpose of affecting the value of its executive's compensation.

In 2024, we did not award options to any of named executive officers within four business days before or one business day after the release of material non-public information.

## Executive Compensation Recovery Policy

In August 2023, we adopted an executive compensation recovery policy that is compliant with Nasdaq and SEC rules. The policy provides for the mandatory recoupment of erroneously-awarded incentive-based compensation from the applicable executives if we make an accounting restatement that results from material noncompliance with financial reporting requirements under federal securities laws or legal and compliance violations.

## Pay Versus Performance

As required by Section 953(a) of the Dodd-Frank Wall Street Reform and Consumer Protection Act and Item 402(v) of Regulation S-K, we are providing the following information about the relationship between executive compensation actually paid (as defined by SEC rules) ("CAP") and certain financial performance measures of the Company. The amounts in the table below are calculated in accordance with SEC rules and do not represent amounts actually earned or realized by our NEOs.

The following table sets forth the compensation for our principal executive officer ("PEO"), Dr. Jennifer Holmgren, and the average compensation for our other NEOs, each as reported in the Summary Compensation Table and with certain adjustments to reflect CAP. The table also provides information with respect to cumulative total shareholder returns ("TSR") and net income.

Year	Summary Compensation Table Total for PEO <sup>(a)</sup>	Compensation Actually Paid to PEO <sup>(b)</sup>	Average Compensation Summary Table Total for Non-PEO Named Executive Officers <sup>(a)</sup>	Average Compensation Actually Paid to Non-PEO Named Executive Officers <sup>(b)</sup>	Value of Initial Fixed \$100 Investment Based on Total Stockholder Return <sup>(c)</sup>	Net Income (\$ in millions) <sup>(d)</sup>
2024	\$ 5,071,031	\$ (5,706,167)	\$ 1,284,685	\$ (1,034,313)	\$ 14	\$ (137.70)
2023	\$ 8,849,858	\$ 13,892,972	\$ 1,632,090	\$ 1,961,653	\$ 51	\$ (134.10)
2022	\$ 1,058,903	\$ 2,752,649	\$ 554,050	\$ 856,421	\$ 101	\$ (76.36)

(a) Compensation for our PEO, Dr. Jennifer Holmgren, reflects the amounts reported in the Summary Compensation Table for each respective year. Average compensation for our other NEOs in 2024 includes the following individuals: Mr. Blasko and Ms. Cuellar. Average compensation for our other NEOs in 2023 and 2022 includes the following individuals: Geoff Trukenbrod, our former Chief Financial Officer, Steven Stanley, our former Chief Commercial Officer, and Dr. Sean Simpson, our former Chief Scientific Officer. For 2023 and 2022, the amounts include compensation (consistent with the Summary Compensation Table) from our predecessor

company, LanzaTech NZ, Inc. prior to the February 2023 business combination that resulted in our becoming a publicly traded business.

(b) Reflects CAP for the PEO and average CAP for our other NEOs, respectively, calculated as set forth in the table below in accordance with SEC rules. These amounts do not reflect the actual amount of compensation earned by or paid to the PEO and other NEOs during the applicable year.

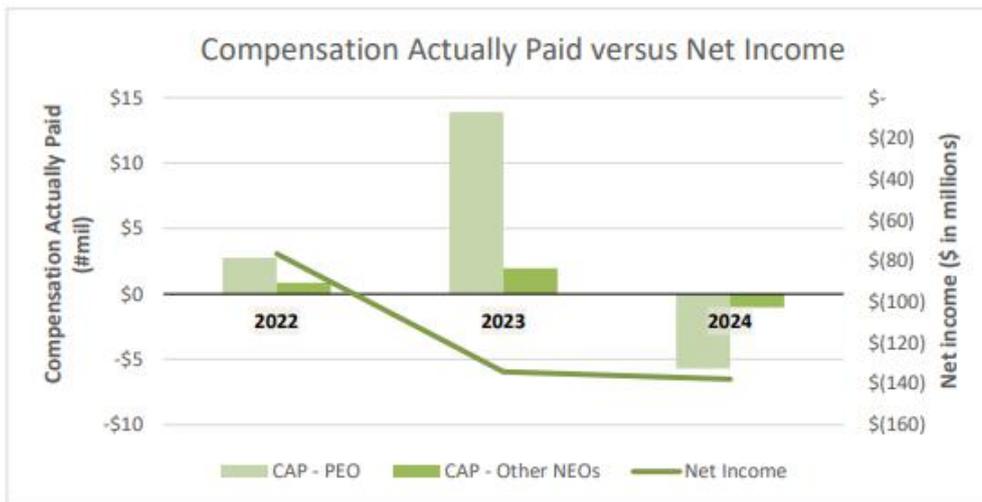
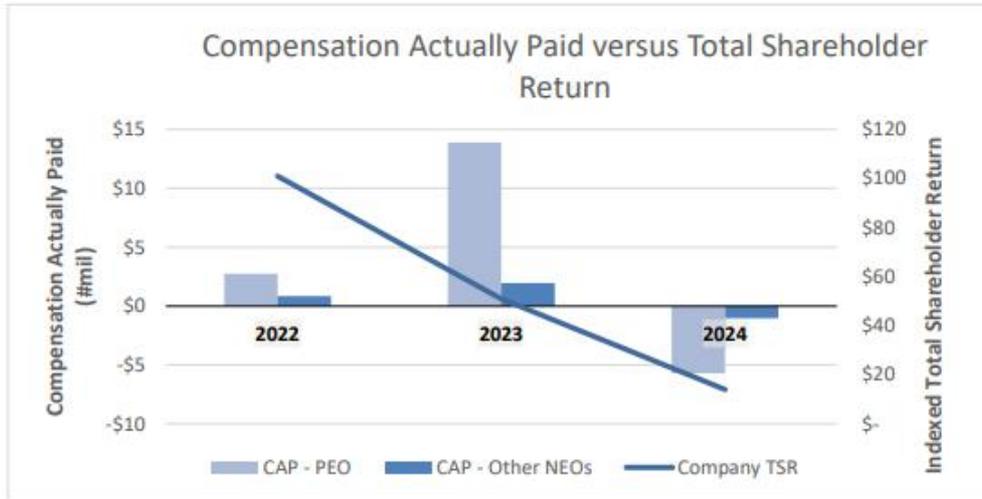
	PEO 2024	Other NEOs 2024	PEO 2023	Other NEOs 2023	PEO 2022	Other NEOs 2022
<b>Total Compensation Report</b>	\$ 5,071,031	\$ 1,284,685	\$ 8,849,858	\$ 1,632,090	\$ 1,058,903	\$ 554,050
<b>Less</b> Stock Award Value Reported in Summary Compensation Table for the Covered Year	\$ (4,289,774)	\$ (714,961)	\$ (7,969,847)	\$ (1,155,971)	\$ –	\$ –
<b>Plus</b> Fiscal Year-End Fair Value for Awards Granted in the Covered Year and Outstanding at Fiscal Year-End	\$ 1,875,743	\$ 649,370	\$ 13,998,834	\$ 1,437,102	\$ –	\$ –
<b>Plus</b> Fair Value as of the Vesting Date for Awards Granted and Vested in the Covered Year	\$ –	\$ –	\$ –	\$ 32,620	\$ –	\$ –
<b>Change</b> in Fair Value of Outstanding Unvested Awards from Prior Years that were Outstanding as of the End of the Covered Fiscal Year	\$ (8,617,476)	\$ (2,294,756)	\$ (555,802)	\$ (3,163)	\$ 1,705,935	\$ 305,357
<b>Change</b> as of the Vesting Date in Fair Value of Awards from Prior Years that Vested in the Covered Fiscal Year	\$ 254,309	\$ 41,349	\$ (430,071)	\$ 18,975	\$ (12,189)	\$ (2,986)
<b>Less</b> Fair Value of Awards Forfeited during the Covered Year	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
<b>Plus</b> Fair Value of Incremental Dividends or Earnings Paid on Stock Awards	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
<b>Less</b> Aggregate Change in Actuarial Present Value of Accumulated Benefit Under Pension Plans	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
<b>Plus</b> Aggregate Service Cost and Prior Service Cost for Pension Plans	\$ –	\$ –	\$ –	\$ –	\$ –	\$ –
<b>Compensation Actually Paid</b>	\$ (5,706,167)	\$ (1,034,313)	\$ 13,892,972	\$ 1,961,653	\$ 2,752,649	\$ 856,421

(c) TSR is cumulative for the measurement periods beginning on December 31, 2021 and ending on December 31 of each of 2024, 2023 and 2022, respectively, calculated in accordance with Item 201(e) of Regulation S-K.

(d) Amounts reflect "Net Loss" in our Consolidated Statements of Operations and Comprehensive Loss included in our Annual Report on Form 10-K for each of the fiscal years ended December 31, 2024, 2023 and 2022. For fiscal years 2023 and 2022 the amount accounts for applicable pre-Business Combination financial information of our predecessor company, LanzaTech NZ, Inc.

Fair values set forth in the table above are computed in accordance with ASC 718 as of the end of the respective fiscal year, other than fair values of awards that vest in the covered year, which are valued as of the applicable vesting date.

The following are graphical descriptions of the relationships between compensation actually paid to our PEO and the average of the executive compensation paid to our other NEOs versus our cumulative TSR and net income for the periods covered in the Pay Versus Performance table.



## BENEFICIAL OWNERSHIP

The following table sets forth information regarding the beneficial ownership of our capital stock as of the Record Date for:

- each person known by us to be the beneficial owner of more than 5% of our Common Stock or Preferred Stock;
- each of our named executive officers and directors; and
- all of our executive officers and directors as a group.

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.

Applicable percentage ownership is based on 231,964,989 shares of our Common Stock and 20,000,000 shares of our Preferred Stock outstanding as of the Record Date.

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 Common Stock. The information provided in the table is based on our records, information filed with the SEC and information provided to us, except where otherwise noted.

Name and Address of Beneficial Owner	Number of shares of Common Stock beneficially owned	% of Common Stock beneficially owned	Number of shares of Preferred Stock beneficially owned	% of Preferred Stock beneficially owned
<b>Directors and Named Executive Officers of LanzaTech:</b>				
<i>(1)</i>				
Jennifer Holmgren, Ph.D. <sup>(2)</sup>	6,364,161	2.7%	—	—
Joseph C. Blasko <sup>(3)</sup>	194,976	*	—	—
Aura Cuellar <sup>(4)</sup>	144,085	*	—	—
Barbara Byrne	52,467	*	—	—
Reyad Fezzani	—	—	—	—
Jill Frizzley	—	—	—	—
Nigel Gormly	52,467	*	—	—
Dorri McWhorter	52,467	*	—	—
Jim Messina <sup>(5)</sup>	1,172,925	*	—	—
Thierry Pilenko	—	—	—	—
Gary Rieschel	52,467	*	—	—
<b>All Directors and Executive Officers of LanzaTech as a Group (19 individuals)</b>				
	10,492,092	4.5%	—	—
<b>Five Percent Holders:</b>				
Khosla Ventures <sup>(6)</sup>	62,867,361	25.0%	20,000,000	100%
Carbon Direct Capital <sup>(7)</sup>	34,054,337	14.7%	—	—
Guardians of New Zealand Superannuation <sup>(8)</sup>	33,263,337	14.3%	—	—
Sinopec Capital Co., Ltd. <sup>(9)</sup>	17,112,976	7.4%	—	—

\* Less than one percent.

(1) Unless otherwise noted, the business address of each of the following individuals is 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077.

(2) Consists of (i) 3,154,005 shares of Common Stock and (ii) 3,210,156 shares of Common Stock subject to options exercisable within 60 days of June 3, 2025.

(3) Consists of 194,976 shares of Common Stock subject to options exercisable within 60 days of June 3, 2025.

(4) Consists of 144,085 shares of Common Stock subject to options exercisable within 60 days of June 3, 2025.

(5) Consists of (i) 537,391 shares of Common Stock and (ii) 635,534 subject to options exercisable within 60 days of June 3, 2025.

(6) Consists of (i) 42,867,361 shares of Common Stock and (ii) 20,000,000 shares of Common Stock issuable upon conversion of the Preferred Stock, which conversion is subject to the conversion limitations set forth in the Certificate of Designation. Based solely on the Schedule 13D/A filed with the SEC on May 12, 2025, as of May 9, 2025, Khosla Ventures III, L.P. ("KV III"), Khosla Ventures Associates III, LLC ("KVA III"), VK Services, LLC ("VK Services") and Vinod Khosla (collectively with KV III, KVA III and VK Services, "Khosla Ventures") beneficially owned 62,867,361 shares of Common Stock in the aggregate, including 20,000,000 shares of Common Stock issuable upon conversion of the Preferred Stock. Each of KV III, 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 common stock, and (ii) Vinod Khosla may be deemed to be the beneficial owner having shared voting power and shared investment power over 62,867,361 shares of 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.

(7) The business address of Carbon Direct Capital Management LLC is 17 State Street, 6th Floor, New York, New York 10004.

(8) Based solely on the Schedule 13G filed with the SEC on February 21, 2023 by Guardians of New Zealand Superannuation. Consists of shares of Common Stock held by Guardians of New Zealand Superannuation, as the manager and administrator of the New Zealand Superannuation Fund. Matt Whineray, Chief Executive Officer, has direct voting and investment power over these shares. The business address of Guardians of New Zealand Superannuation is 21 Queen Street Level 12, Auckland 1010, New Zealand.

(9) 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.

## CERTAIN RELATIONSHIPS AND RELATED PARTY TRANSACTIONS

### Policies and Procedures for Related Party Transactions

Upon consummation of the Business Combination, the Board adopted a written Related Party Transactions Policy that sets forth our policies and procedures regarding the notification, review, approval, ratification and disclosure of “related party transactions.” For purposes of this policy, a “related party transaction” is a transaction, arrangement or relationship (or any series of similar transactions, arrangements or relationships) in which we or any of our subsidiaries are participants involving an amount that exceeds \$120,000, in which any “related person” has or will have a direct or indirect material interest.

Transactions involving compensation for services provided to us as an employee or director will not be considered related party transactions under this policy. A “related person” is any executive officer, director, nominee to become a director, a holder of more than 5% of any class of the Company’s voting securities, including any of their immediate family members and affiliates, including entities owned or controlled by such persons, and any entity that employs any of the foregoing persons, of which any of the foregoing persons is a general partner, officer or serves in a similar position, or in which any of the foregoing persons has a 10% percent or greater beneficial ownership interest.

Under the policy, the related person in question or, in the case of transactions with a holder of more than 5% of any class of the Company’s voting securities, any director or employee with knowledge of a proposed transaction, must present information regarding the proposed related party transaction to the Audit Committee of the Board for review. To identify related party transactions in advance, the Company will rely on information supplied by its executive officers, directors and certain significant stockholders.

The Audit Committee will approve only those transactions that it determines are in our best interests.

### Related Party Transactions

#### *Preferred Stock Purchase Agreement*

As discussed under “Proposal 4—The Increased Authorized Share Proposal—Background,” on May 7, 2025, the Company and LanzaTech Global SPV, LLC, an entity controlled by Khosla Ventures, a beneficial owner of more than five percent of the Company’s voting securities, entered into the Purchase Agreement pursuant to which the Company agreed to issue and sell 20,000,000 shares of Preferred Stock to the Purchaser for an aggregate purchase price of \$40 million. The Preferred Stock Issuance was consummated on May 7, 2025. On June 2, 2025, we entered into the Purchase Agreement Amendment to, among other things, extend the date by which the Company is required to (i) issue and sell the Warrant to the Purchaser from May 31, 2025 to the Issuance Time, if and only if the Issuance Time occurs on or prior to May 7, 2026, and (ii) consummate a Subsequent Financing from no later than 10 business days following receipt of the Requisite Stockholder Approvals to no later than 45 days following receipt thereof.

Pursuant to the Purchase Agreement, the Company also agreed to issue and sell to the Purchaser the Warrant to purchase Warrant Shares at an exercise price equal to \$0.0000001 per Warrant Share (subject to adjustments in certain events, including the Reverse Stock Split and to be no less than par value of the Common Stock). We will be required to issue the Warrant immediately prior to the consummation, if any, of a Financing (such time, the “Issuance Time”), if and only if the Issuance Time occurs on or prior to May 7, 2026. The Warrant will not be exercisable unless and until the Conditions to Exercise are satisfied; provided, however, that if the Conditions to Exercise are satisfied, the Warrant will be deemed automatically exercised, concurrently with the consummation of such Financing, on a cashless, net-exercise basis. The Warrant will terminate at the earlier of (i) the Expiration Time and (ii) May 7, 2026.

Subject only to obtaining the Requisite Stockholder Approvals, the Company also agreed to use its reasonable best efforts to consummate a bona fide financing pursuant to which the Company sells Common Stock to one or more accredited investors reasonably satisfactory to the Majority Holders, at a price per share of \$0.05 (subject to adjustment in certain events, including the Reverse Stock Split), payable in cash, with an aggregate original issue price of not less than \$35 million and not more than \$60 million, on terms and conditions reasonably satisfactory to the Majority Holders (the “Subsequent

Financing”). The Purchase Agreement provides that the Subsequent Financing must be consummated, if at all, no later than 45 days following receipt of the Requisite Stockholder Approvals.

In addition, with the Majority Holders’ consent, the Company may consummate a financing that does not constitute a Subsequent Financing (an “Other Financing”), which Other Financing could result in fewer shares being issued or such shares being issued at a lower price.

### **HOUSEHOLDING OF PROXY MATERIALS**

The SEC has adopted rules that permit companies and intermediaries (e.g., brokers) to satisfy the delivery requirements for proxy materials with respect to two or more stockholders sharing the same address by delivering a single proxy statement addressed to those stockholders. This process, which is commonly referred to as “householding,” potentially means extra convenience for stockholders and cost savings for companies.

Brokers with account holders who are the Company’s stockholders may be “householding” our proxy materials. A single copy of the proxy materials may be delivered to multiple stockholders sharing an address unless contrary instructions have been received from the affected stockholders. Once you have received notice from your broker that they will be householding communications to your address, householding will continue until you are notified otherwise or until you revoke your consent. If, at any time, you no longer wish to participate in householding and would prefer to receive a separate copy of the proxy materials, please (1) notify your broker, (2) direct your written request to LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary or (3) call Investor Relations at (847) 324-2400. Stockholders who currently receive multiple copies of the proxy materials at their address and would like to request householding of their communications should contact their brokers. In addition, upon written or oral request to the address or telephone number set forth above, we will promptly deliver a separate copy of the proxy materials to any stockholder at a shared address to which a single copy of the documents was delivered.

### **STOCKHOLDER PROPOSALS AND DIRECTOR NOMINATIONS**

Pursuant to Rule 14a-8 under the Exchange Act, stockholders may present proper proposals for inclusion in our proxy statement and for consideration at our next annual meeting of stockholders. Any proposal of a stockholder intended to be included in our proxy statement for the 2026 Annual Meeting of Stockholders pursuant to Rule 14a-8 must be received by us no later than February 18, 2026, unless the date of our 2026 Annual Meeting of Stockholders is more than 30 days before or after July 28, 2026, in which case the proposal must be received a reasonable time before we begin to print and mail our proxy materials. All proposals should be directed to LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary.

Pursuant to the terms of our Bylaws, stockholders wishing to submit proposals or director nominations for consideration at our 2026 Annual Meeting of Stockholders, including those that are not to be included in such proxy statement and proxy, must provide timely notice in writing to LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary. Pursuant to our Bylaws, to be timely, a stockholder’s notice must be delivered to or mailed and received at our principal executive offices not later than the close of business on April 29, 2026 nor earlier than the opening of business on March 30, 2026; provided, however, that if the date of the 2026 Annual Meeting of Stockholders is more than 30 days before or more than 60 days after July 28, 2026, notice by stockholders to be timely must be so delivered, or mailed and received, not earlier than the close of business on the 120th day prior to such annual meeting and not later than the later of the close of business on the 90th day prior to such annual meeting or the close of business on the 10th day following the day on which public disclosure of the date of such annual meeting was first made. Stockholders are advised to review our Bylaws, which contain additional requirements with respect to advance notice of stockholder proposals and director nominations.

In addition to satisfying the requirements under our Bylaws with respect to advance notice of any nomination, any stockholder that intends to solicit proxies in support of director nominees other than the

Company's nominees must comply with all the requirements of Rule 14a-19 promulgated under the Exchange Act.

#### ANNUAL REPORT

**We will provide to any stockholder entitled to vote at our Annual Meeting, at no charge, a copy of our 2024 Annual Report, including the financial statements contained therein.** Requests should be directed to: LanzaTech Global, Inc., 8045 Lamon Avenue, Suite 400, Skokie, Illinois 60077, Attn: Corporate Secretary, telephone (847) 324-2400.

#### OTHER MATTERS

The Board knows of no other matters that will be presented for consideration at our Annual Meeting. If any other matters are properly brought before the Annual Meeting, it is the intention of the persons named in the accompanying proxy to vote on such matters in accordance with their best judgment.

By Order of the Board of Directors,

/s/ Ryan Replogle

Ryan Replogle  
Deputy General Counsel & Corporate Secretary

June 18, 2025

Skokie, Illinois

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 (the “*DGCL*”), does hereby certify as follows:

1. Section 4.1 of ARTICLE IV of the Second Amended and Restated Certificate of Incorporation of the Corporation (as amended to date, the “*Second Amended and Restated Certificate*”), is hereby amended to read in its entirety as follows:

Section 4.1. Authorized Capital Stock. The total number of shares of all classes of capital stock which the Corporation is authorized to issue is 2,600,000,000 shares, consisting of (a) 2,580,000,000 shares of common stock (the “*Common Stock*”), par value \$0.0000001 per share, and (b) 20,000,000 shares of preferred stock (the “*Preferred Stock*”), par value \$0.0001 per share.

2. Section 7.3 of ARTICLE VII of the Second Amended and Restated Certificate is hereby amended to read in its entirety as follows:

Section 7.3 Action by Consent in Lieu of Meeting. Any action required or permitted to be taken by the stockholders of the Corporation may be taken without a meeting, without prior notice and without a vote if a consent or consents, setting forth the action so taken, shall be signed by the holders of outstanding stock having not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted and shall be delivered to the Corporation in the manner required by law.

3. The foregoing amendments to the Second Amended and Restated Certificate have been duly adopted in accordance with the provisions of Section 242 of the DGCL. All other provisions of the Second Amended and Restated Certificate remain in full force and effect.

4. This Certificate of Amendment to the Second Amended and Restated Certificate shall be effective at [time] on [date].

[Signature page follows]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to the Second Amended and Restated Certificate to be executed by its duly authorized officer on the date set forth below.

**LANZATECH GLOBAL, INC.**

**By:** \_\_\_\_\_  
*[Name]*  
*[Title]*

**Date:**

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 (the “*DGCL*”), does hereby certify as follows:

5. Section 4.1 of ARTICLE IV of the Second Amended and Restated Certificate of Incorporation of the Corporation (as amended to date, the “*Second Amended and Restated Certificate*”), is hereby amended to read in its entirety as follows:

Section 4.1. Authorized Capital Stock. The total number of shares of all classes of capital stock which the Corporation is authorized to issue is 45,800,000 shares, consisting of (a) 25,800,000 shares of common stock (the “*Common Stock*”), par value \$0.0000001 per share, and (b) 20,000,000 shares of preferred stock (the “*Preferred Stock*”), par value \$0.0001 per share.

Upon the effectiveness of the Certificate of Amendment of this Amended and Restated Certificate, which inserts this paragraph, every one hundred (100) shares of Common Stock then issued and outstanding or held by the Corporation in treasury shall automatically and without any action on the part of the Corporation or the respective holders thereof be reclassified and combined into one (1) share of Common Stock (the “*Reverse Stock Split*”). The par value of the Common Stock following the Reverse Stock Split shall remain at \$0.0000001 per share.

6. The foregoing amendment to the Second Amended and Restated Certificate has been duly adopted in accordance with the provisions of Section 242 of the DGCL. All other provisions of the Second Amended and Restated Certificate remain in full force and effect.

7. This Certificate of Amendment to the Second Amended and Restated Certificate shall be effective at [*time*] on [*date*].

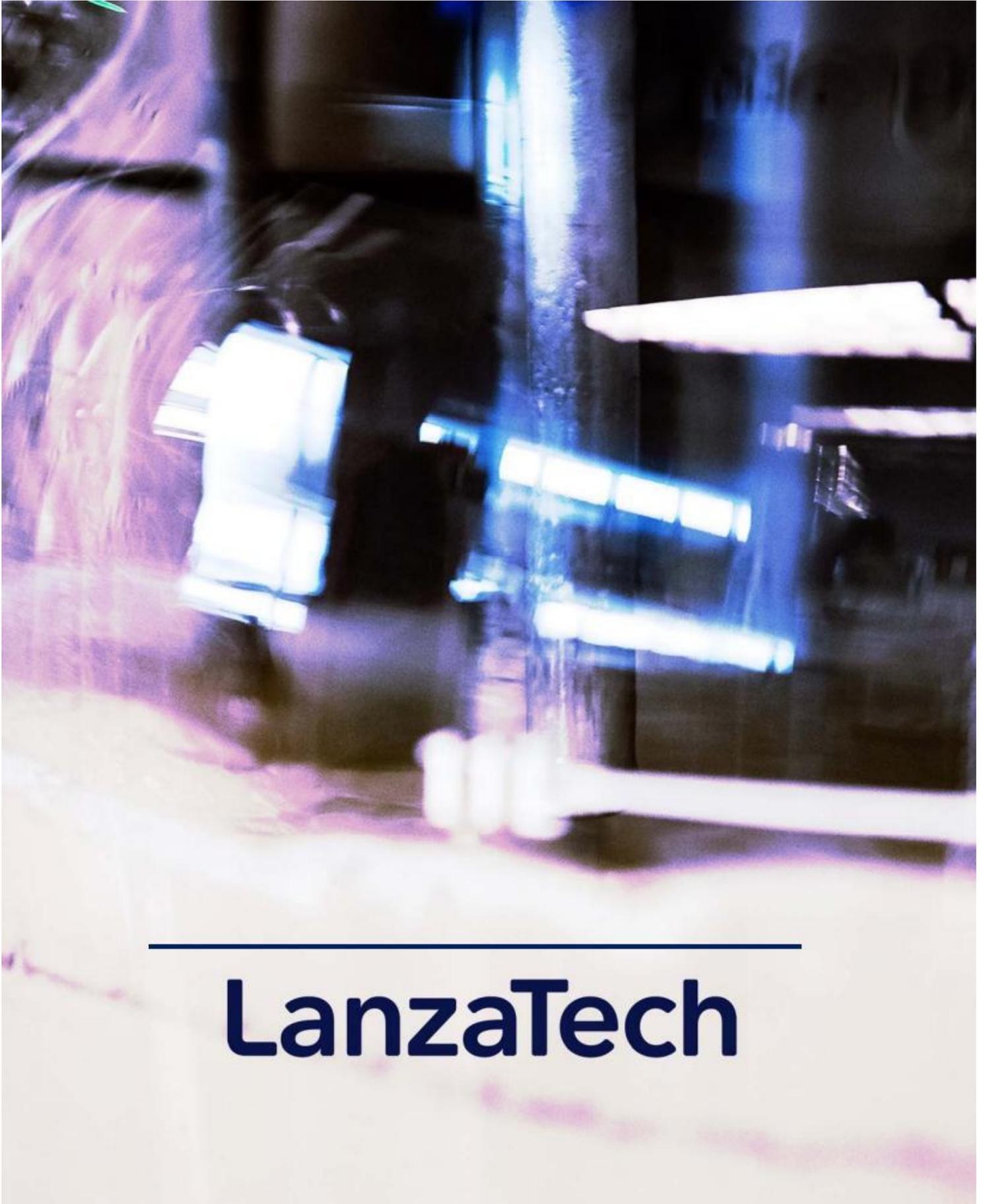
[*Signature page follows*]

IN WITNESS WHEREOF, the Corporation has caused this Certificate of Amendment to the Second Amended and Restated Certificate to be executed by its duly authorized officer on the date set forth below.

**LANZATECH GLOBAL, INC.**

**By:** \_\_\_\_\_  
*[Name]*  
*[Title]*

**Date:**



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**LanzaTech**

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**YOUR VOTE IS IMPORTANT. PLEASE VOTE TODAY.**

2025

Vote by Internet – **QUICK \*\*\* EASY**  
**IMMEDIATE – 24 Hours a Day, 7 Days a Week or by Mail**

**LANZATECH GLOBAL, INC.**

Your Internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card. Votes submitted electronically over the Internet must be received by 11:59 p.m., Eastern Time, on July 27, 2025.



**INTERNET –**  
**www.cstproxyvote.com**

Use the Internet to vote your proxy. Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



**Vote at the Meeting –**

If you plan to attend the virtual online annual meeting, you will need your 12 digit control number to vote electronically at the annual meeting. To attend:  
<https://cstproxy.com/lanzatech/2025>



**MAIL –** Mark, sign and date your proxy card and return it in the postage-paid envelope provided.

**PLEASE DO NOT RETURN THE PROXY CARD IF YOU ARE VOTING ELECTRONICALLY.**

**PROXY**

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE “FOR” EACH NOMINEE IN PROPOSAL 1 AND “FOR” PROPOSALS 2 – 10**

Please mark your votes like this



**1. Election of Class II Directors**

- (1) Barbara Byrne
- (2) Reyad Fezzani

FOR ALL	WITHHOLD ALL	FOR ALL EXCEPT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Instruction: To withhold authority to vote for any individual nominee, mark “For All Except” and write the number of the nominee on the line below that you wish to withhold authority to vote for:

2. Ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025.

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To approve, on an advisory (non-binding) basis, the compensation of our named executive officers.

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. To approve an amendment to LanzaTech’s Second Amended and Restated Certificate of Incorporation (the “Certificate of Incorporation”) to increase the number of authorized shares of LanzaTech’s common stock (“Common Stock”) from 600,000,000 to 2,580,000,000 (which will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000) (the “Increased Authorized Share Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. To approve an amendment to the Certificate of Incorporation to effect (a) a reverse stock split of the Common Stock, at a ratio of 100-for-1 (the “Reverse Stock Split Proposal”) and (b) if the Increased Authorized Share Proposal and Reverse Stock Split Proposal are implemented, proportionately decrease the authorized number of shares of Common Stock, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company (the “Split-Related Proposals”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. To approve an amendment to the Certificate of Incorporation to permit stockholders to act by written consent (the “Action by Written Consent Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. To approve an amendment to the Certificate of Incorporation to decrease the par value of the Common Stock from \$0.0001 to \$0.0000001 (the “Par Value Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. To approve for purposes of Nasdaq Listing Rule 5635(b) any “change of control” resulting from the issuance of shares of Common Stock upon conversion of LanzaTech’s Series A Convertible Senior Preferred Stock, par value \$0.0001 per share (“Preferred Stock”), the exercise of a warrant to purchase 780,000,000 shares of Common Stock (the “Warrant”) and in connection with a Financing (as such term is defined in the Proxy Statement) (the “Nasdaq Listing Rule 5635(b) Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. To approve for purposes of Nasdaq Listing Rule 5635(d) LanzaTech’s ability to issue Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which shares, independently or when aggregated, would exceed 19.9% of the number of outstanding shares of Common Stock prior to such transactions (the “Nasdaq Listing Rule 5635(d) Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. To approve one or more adjournments of the Annual Meeting to a later date or dates, if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve the preceding proposals at the time of the Annual Meeting or any adjournment or postponement thereof, or in the absence of a quorum (the “Adjournment Proposal”).

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTROL NUMBER

Signature \_\_\_\_\_ Signature, if held jointly \_\_\_\_\_ Date \_\_\_\_\_ 2025.

Note: Please sign exactly as name appears hereon. When shares are held by joint owners, both should sign. When signing as attorney, executor, administrator, trustee, guardian, or corporate officer, please give title as such.

**Important Notice Regarding the Internet Availability of  
Proxy Materials for the Annual Meeting of Stockholders**

**To view the 2025 Proxy Statement, 2024 Annual Report  
and to attend the Annual Meeting, please go to:  
<https://www.cstproxy.com/lanzatech/2025>**

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

**PROXY**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS  
LANZATECH GLOBAL, INC.**

The undersigned hereby revokes any prior proxies with respect to the Common Stock of LanzaTech Global, Inc. and appoints Dr. Jennifer Holmgren and Ryan Repogle, and each of them as proxies, each with full power of substitution and re-substitution, and authorizes each of them to represent and to vote, as designated on the reverse hereof, all of the shares of common stock of LanzaTech Global, Inc. held of record by the undersigned at the Annual Meeting of Stockholders of LanzaTech Global, Inc. to be held on July 28, 2025, or at any adjournment or postponement thereof.

**THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS INDICATED. IF NO CONTRARY INDICATION IS MADE, THE PROXY WILL BE VOTED IN FAVOR OF ELECTING THE TWO CLASS II DIRECTOR NOMINEES TO THE BOARD OF DIRECTORS (OR, IF FOR ANY REASON ANY SUCH NOMINEE IS NOT AVAILABLE FOR ELECTION, FOR SUCH SUBSTITUTE NOMINEES AS THE BOARD MAY NOMINATE), AND IN FAVOR OF PROPOSALS 2—10, AND IN ACCORDANCE WITH THE JUDGMENT OF THE PERSONS NAMED AS PROXY HEREIN ON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE ANNUAL MEETING OR ANY ADJOURNMENT OR POSTPONEMENT THEREOF. THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS.**

(Continued and to be marked, dated and signed on the other side)

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**YOUR VOTE IS IMPORTANT. PLEASE VOTE TODAY.**

2025

Vote by Internet –QUICK \*\*\* EASY  
IMMEDIATE – 24 Hours a Day, 7 Days a Week or by Mail

**LANZATECH GLOBAL, INC.**

Your Internet vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed and returned your proxy card. Votes submitted electronically over the Internet must be received by 11:59 p.m., Eastern Time, on July 27, 2025.



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Use the Internet to vote your proxy. Have your proxy card available when you access the above website. Follow the prompts to vote your shares.



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If you plan to attend the virtual online annual meeting, you will need your 12 digit control number to vote electronically at the annual meeting. To attend:  
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**PROXY**

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

**THE BOARD OF DIRECTORS RECOMMENDS A VOTE "FOR" EACH NOMINEE IN PROPOSAL 1 AND "FOR" PROPOSALS 2 – 7 AND 10**

Please mark your votes like this



1. Election of Class II Directors

- (1) Barbara Byrne
- (2) Reyad Fezzani

FOR ALL	WITHHOLD ALL	FOR ALL EXCEPT
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Instruction: To withhold authority to vote for any individual nominee, mark "For All Except" and write the number of the nominee on the line below that you wish to withhold authority to vote for: \_\_\_\_\_

2. Ratification of the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025.

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

3. To approve, on an advisory (non-binding) basis, the compensation of our named executive officers.

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. To approve an amendment to LanzaTech's Second Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") to increase the number of authorized shares of LanzaTech's common stock ("Common Stock") from 600,000,000 to 2,580,000,000 (which will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000) (the "Increased Authorized Share Proposal").

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

5. To approve an amendment to the Certificate of Incorporation to effect (a) a reverse stock split of the Common Stock, at a ratio of 100-for-1 (the "Reverse Stock Split Proposal") and (b) if the Increased Authorized Share Proposal and Reverse Stock Split Proposal are implemented, proportionately decrease the authorized number of shares of

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Common Stock, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company (the "Split-Related Proposals").

6. To approve an amendment to the Certificate of Incorporation to permit stockholders to act by written consent (the "Action by Written Consent Proposal").

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

7. To approve an amendment to the Certificate of Incorporation to decrease the par value of the Common Stock from \$0.0001 to \$0.0000001 (the "Par Value Proposal").

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

8. [Reserved].

9. [Reserved].

10. To approve one or more adjournments of the Annual Meeting to a later date or dates, if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve the preceding proposals at the time of the Annual Meeting or any adjournment or postponement thereof, or in the absence of a quorum (the "Adjournment Proposal").

FOR	AGAINST	ABSTAIN
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

CONTROL NUMBER

Signature \_\_\_\_\_ Signature, if held jointly \_\_\_\_\_ Date \_\_\_\_\_ 2025.

Note: Please sign exactly as name appears hereon. When shares are held by joint owners, both should sign. When signing as attorney, executor, administrator, trustee, guardian, or corporate officer, please give title as such.

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and to attend the Annual Meeting, please go to:  
<https://www.cstproxy.com/lanzatech/2025>**

▲ FOLD HERE • DO NOT SEPARATE • INSERT IN ENVELOPE PROVIDED ▲

**PROXY**

**THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS  
LANZATECH GLOBAL, INC.**

The undersigned hereby revokes any prior proxies with respect to the Series A Convertible Senior Preferred Stock of LanzaTech Global, Inc. and appoints Dr. Jennifer Holmgren and Ryan Replogle, and each of them as proxies, each with full power of substitution and re-substitution, and authorizes each of them to represent and to vote, as designated on the reverse hereof, all of the shares of Series A Convertible Senior Preferred Stock of LanzaTech Global, Inc. held of record by the undersigned at the Annual Meeting of Stockholders of LanzaTech Global, Inc. to be held on July 28, 2025, or at any adjournment or postponement thereof.

**THIS PROXY WHEN PROPERLY EXECUTED WILL BE VOTED AS INDICATED. IF NO CONTRARY INDICATION IS MADE, THE PROXY WILL BE VOTED IN FAVOR OF ELECTING THE TWO CLASS II DIRECTOR NOMINEES TO THE BOARD OF DIRECTORS (OR, IF FOR ANY REASON ANY SUCH NOMINEE IS NOT AVAILABLE FOR ELECTION, FOR SUCH SUBSTITUTE NOMINEES AS THE BOARD MAY NOMINATE), AND IN FAVOR OF PROPOSALS 2 — 7 AND 10, AND IN ACCORDANCE WITH THE JUDGMENT OF THE PERSONS NAMED AS PROXY HEREIN ON ANY OTHER MATTERS THAT MAY PROPERLY COME BEFORE THE ANNUAL MEETING OR ANY ADJOURNMENT OR POSTPONEMENT THEREOF. THIS PROXY IS SOLICITED ON BEHALF OF THE BOARD OF DIRECTORS.**

(Continued and to be marked, dated and signed on the other side)

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