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

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

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

LanzaTech Global, Inc.

(Name of Registrant as Specified in its Charter)

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

Payment of Filing Fee (Check the appropriate box):

- No fee required.
 - Fee paid previously with preliminary materials.
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LanzaTech

NOTICE OF 2026 ANNUAL MEETING OF STOCKHOLDERS & PROXY STATEMENT



Dear Stockholders,

Over the past year, we have sharpened our focus on what matters most in today's environment: resilience, reliability, and the ability to deliver critical energy solutions in a world defined by uncertainty.

Our platform is increasingly centered on the production of sustainable aviation fuel (SAF), a sector that is rapidly becoming a strategic priority for airlines, governments, and energy markets alike. By converting underutilized carbon streams into SAF, we are helping to expand fuel supply options and reduce reliance on conventional sources that are often exposed to geopolitical and supply chain volatility. This is not simply about innovation, it is about building a more secure and adaptable aviation fuel ecosystem.

In 2025 and into 2026, we took important steps to strengthen our operational and financial position. We improved cost discipline while continuing to advance key SAF projects and deepen relationships across the aviation value chain. We also secured additional capital to support execution of our highest-priority opportunities, ensuring that we remain positioned to deliver in a complex and evolving market environment.

At the same time, we have been candid about the challenges reflected in our recent public filings. Strengthening our financial position, enhancing internal controls, and improving execution consistency remain top priorities. We are taking decisive actions in each of these areas to ensure that our business is built for long-term durability and accountability.

The strategic relevance of SAF continues to grow. Aviation requires energy-dense, drop-in fuels, and demand is being shaped not only by environmental considerations but by the need for diversified and resilient supply. Our approach enables production closer to the point of need, using existing infrastructure and alternative inputs, which can help mitigate supply disruptions and improve fuel security for our partners.

Looking ahead, our strategy is grounded in disciplined growth and focused execution. We will prioritize SAF projects that demonstrate clear economic value, scalable deployment, and strong alignment with customer demand. In doing so, we are positioning the company as a key contributor to a more resilient and secure aviation energy landscape.

We appreciate the continued support of our stockholders as we move forward with focus and accountability.

Yours sincerely,

/s/ Jennifer Holmgren

Jennifer Holmgren, Ph.D.
CEO and Chair of the Board of Directors

/s/ Jim Messina

Jim Messina
Lead Independent Director

April 29, 2026

Skokie, Illinois

LanzaTech

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

NOTICE OF 2026 ANNUAL MEETING OF STOCKHOLDERS TO BE HELD ON TUESDAY, JUNE 23, 2026

To the Stockholders of LanzaTech Global, Inc.:

The 2026 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 Tuesday, June 23, 2026. 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/2026>, 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 for the following purposes:

1. To elect two Class III directors to the Board of Directors to serve for a term expiring at the 2029 annual meeting of stockholders;
2. To ratify the appointment of BDO USA, P.C. (“BDO”) as our independent registered public accounting firm for the fiscal year ending December 31, 2026;
3. To cast an advisory (non-binding) vote to approve the compensation of our named executive officers; and
4. To 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.

If you owned our Common Stock at the close of business on April 28, 2026, 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 April 29, 2026, 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 (which includes our Annual Report on Form 10-K for the year ended December 31, 2025 (“2025 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/2026>. 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 Board of Directors

/s/ Jim Messina

Jim Messina
Lead Independent Director

April 29, 2026

Skokie, Illinois

IMPORTANT NOTICE REGARDING INTERNET AVAILABILITY OF PROXY MATERIALS FOR THE ANNUAL MEETING TO BE HELD ON TUESDAY, JUNE 23, 2026: The 2025 Annual Report and proxy statement are available online at <https://www.cstproxy.com/lanzatech/2026>.

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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, 2025 and its Quarterly Report on Form 10-Q for the quarter ended March 31, 2026 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

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 2026 Annual Meeting of Stockholders (the “Annual Meeting”) to be held on Tuesday June 23, 2026 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/2026> 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 April 29, 2026, we will commence sending a Notice of Internet Availability of Proxy Materials (the “Notice”). The Notice contains instructions on how to access this proxy statement and our 2025 Annual Report over the Internet, which are available at <https://www.cstproxy.com/lanzatech/2026>. The Notice also contains instructions on how to request a paper copy of our proxy materials, including this proxy statement, the 2025 Annual Report and a form of proxy card. The Notice is being sent to stockholders who owned our Common Stock at the close of business on April 28, 2026, 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 April 28, 2026 as the Record Date for the Annual Meeting. Only stockholders of record of our Common 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 10,089,163 shares of Common 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 10,089,163 votes based on their ownership of Common Stock. The Common Stock votes together as a single class.

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

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

1. Election of the two Class III director nominees named herein to the Board to serve for a term expiring at the 2029 Annual Meeting of Stockholders (“Proposal 1”);
2. Ratification of the appointment of BDO as our independent registered public accounting firm for the fiscal year ending December 31, 2026 (“Proposal 2”); and

3. An advisory (non-binding) vote to approve the compensation of our named executive officers (“Proposal 3”).

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 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 10,089,163 shares of Common Stock outstanding. Thus, a total of 10,089,163 votes are entitled to be cast at the Annual Meeting, and holders of Common Stock representing at least 5,044,852 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 III 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 2–3, 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, directors are elected by a plurality of the votes cast by the holders of our Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon. Accordingly, the two candidates who receive the greatest number of votes “FOR” will be elected as directors. “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 Common Stock present in

person, including by means of remote communication, or represented by proxy and entitled to vote thereon. 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 Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon. Abstentions and broker non-votes are not considered votes cast and will have no effect on the vote for this proposal.

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 one proposal is considered “routine” matters for which brokers, banks or other nominees may vote uninstructed shares: Proposal 2, regarding the ratification of the appointment of BDO as our independent registered public accounting firm for the fiscal year ending December 31, 2026. Consequently, no broker non-votes are expected in connection with Proposal 2.

Proposals 1 and 3 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 III director nominees named herein to the Board (Proposal 1);
- **“FOR”** the ratification of the appointment of BDO as our independent registered public accounting firm for the fiscal year ending December 31, 2026 (Proposal 2); and
- **“FOR”** the advisory vote to approve the compensation of our named executive officers (Proposal 3).

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/2026>.

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/2026. 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/2026.
- Assistance with questions regarding how to attend and participate via the Internet will be provided via CST's 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/2026 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 Tuesday, June 23, 2026. 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 June 22, 2026. 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.” In tabulating the voting results for any particular proposal, shares that constitute broker non-votes are not considered entitled to vote on that proposal.

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 June 22, 2026 (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 Common 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 III DIRECTORS

Overview

Our Board currently consists of seven 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.

Our Certificate of Incorporation provides that the authorized number of directors may be changed only by resolution of the Board. 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. 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 III directors, Ms. McWhorter and Mr. Messina will expire.

Our stockholders will vote for the Class III director nominees listed below to serve until our 2029 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 I and Class II directors will be considered for nomination for election in 2027 and 2028, respectively.

The following table sets forth certain information about our directors as of the date of this proxy statement:

| Name | Age | Position(s) |
|--------------------------|-----|--------------------------------------|
| Jennifer Holmgren, Ph.D. | 65 | Chief Executive Officer and Director |
| Jim Messina | 56 | Lead Independent Director |
| Barbara Byrne | 71 | Director |
| Reyad Fezzani | 59 | Director |
| Nigel Gormly | 52 | Director |
| Dorri McWhorter | 52 | Director |
| Thierry Pilenko | 68 | Director |

Nominees for Election as Class III Directors with Terms Expiring in 2029

The nominees listed below have been recommended by the Nominating and Governance Committee to be elected to serve as Class III 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.

Dorri McWhorter has served as a director of LanzaTech since 2023. Ms. McWhorter is currently the President and Chief Executive Officer of The Executives' Club of Chicago. She 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 recently completed her service 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. 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 Blockchain.com, Fortera, Vectra.ai, the United States Soccer Foundation, the Montana Land Reliance, & the Wilderness Society. 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.

Vote Required

The affirmative vote of a plurality of the votes cast by the holders of our Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon is required to elect Ms. McWhorter and Mr. Messina as Class III directors to serve until the 2029 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 III 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 a Partner at Climatalist, where he develops investment platforms that aggregate distributed energy projects into scalable, financeable portfolios. He is also Executive Director of Waihou Capital, advising companies in New Zealand and internationally on scaling first-of-a-kind technologies, mobilizing capital for regenerative solutions and improving access to capital for under-served communities.

Mr. Gormly's background includes leadership and governance roles across investment, strategic development and commercialization, working with companies across diverse industries, stages of development, and geographies. As Director of Programs at the Centre for Sustainable Finance, Mr. Gormly created policy and market development tools for the New Zealand government and established an innovation platform to catalyze and accelerate novel finance solutions for the energy sector. He was previously Chief Investment Officer at Toha Foundry, developing innovative finance products for nature-based solutions, and earlier led the International Direct Investment team at the New Zealand

Superannuation Fund, New Zealand's sovereign wealth fund, overseeing global investments across energy, infrastructure and specialty real estate. Prior to joining the NZ 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 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 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, Rely Solutions, LanzaTech Global, Inc., and John Cockerill Hydrogen SA. Previously, Mr. Pilenko was a Director of Veritas DGC, CGGVeritas, Technip SA, Peugeot SA, Hercules Offshore, Valaris, TechnipFMC, Ensign Natural Resources, and P6 Technologies. He is the founder of Pil & Co LLC, a consulting firm in strategy, technology, and leadership. 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 II Directors with Terms Expiring in 2028

Barbara Byrne has served as a director of LanzaTech since 2023. Ms. Byrne is the former Vice Chairman of Investment Banking of Barclays, and previously Lehman Brothers, 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 an independent director of Paramount a Skydance Corporation and its predecessors, CBS Corporation and 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 ICHEME, 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.

PROPOSAL 2

RATIFICATION OF APPOINTMENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Audit Committee has appointed BDO as our independent registered public accounting firm for the fiscal year ending December 31, 2026 and urges you to vote for the ratification of BDO's appointment. Stockholder ratification of the appointment of BDO 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 BDO 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 BDO. 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 BDO to virtually attend the Annual Meeting and be available to respond to appropriate questions by stockholders. Additionally, the representatives of BDO will have the opportunity to make a statement if they so desire.

Deloitte & Touche LLP ("Deloitte") served as the Company's independent registered public accounting firm since the fiscal year ended December 31, 2016 and reported on the Company's consolidated financial statements for that year and for each subsequent year through the fiscal year ended December 31, 2025. Representatives of Deloitte will not be present at the Annual Meeting.

Change in Accountants

Our Audit Committee conducted a competitive process to determine the Company's independent registered public accounting firm for the Company's 2026 fiscal year. As a result of this process, effective April 10, 2026, the Audit Committee approved the engagement of BDO as our independent registered public accounting firm for the 2026 fiscal year.

Also effective April 10, 2026, the Audit Committee informed Deloitte that it was dismissed as the Company's independent registered public accounting firm.

The audit reports of Deloitte on the Company's consolidated financial statements for the fiscal years ended December 31, 2025 and 2024 did not contain an adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles, except that each report contained an explanatory paragraph regarding substantial doubt about the Company's ability to continue as a going concern.

During the Company's fiscal years ended December 31, 2025 and 2024, and the subsequent interim period through April 10, 2026, there were no disagreements (as defined in Item 304(a)(1)(iv) of Regulation S-K and its related instructions) between the Company and Deloitte on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which, if not resolved to the satisfaction of Deloitte, would have caused Deloitte to make reference to the subject matter of the disagreement in its reports on the Company's consolidated financial statements.

During the Company's fiscal years ended December 31, 2025 and 2024, and the subsequent interim period through April 10, 2026, there were no "reportable events" (as defined in Item 304(a)(1)(v) of Regulation S-K), except as previously disclosed in the Company's Annual Report on Form 10-K for the years ended December 31, 2025 and 2024, where the Company identified a material weaknesses in internal control over financial reporting related to ineffective controls over complex accounting transactions and significant estimates, including revenue recognition, as well as deficiencies in the design and execution of controls within the financial close and reporting process. These issues were

exacerbated by reductions in force and turnover in key accounting and financial reporting roles, resulting in capacity constraints that affected the consistent execution, review, and documentation of internal control activities, and impacted multiple components of the Committee of Sponsoring Organizations of the Treadway Commission (COSO) Internal Control—Integrated Framework, including control activities, monitoring, risk assessment, and information and communication. The Company and the Audit Committee have discussed the material weaknesses with Deloitte and have authorized them to respond fully to inquiries of the successor independent registered public accounting firm concerning such material weaknesses. Such material weaknesses did not result in any restatement of the Company's financial statements and did not give rise to any disagreement between the Company and Deloitte.

The Company provided Deloitte with a copy of the above disclosures and requested that Deloitte furnish the Company with a letter addressed to the SEC stating whether it agrees with the statements made herein and, if not, stating the respects in which it does not agree. A copy of such letter, dated April 17, 2026, is filed as Exhibit 16.1 to Amendment No. 1 to our Current Report on Form 8-K dated April 10, 2026, filed with the SEC on April 17, 2026.

During the Company's fiscal years ended December 31, 2025 and 2024, and the subsequent interim period through April 10, 2026, neither the Company nor anyone on its behalf consulted with BDO regarding either: (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered on the Company's consolidated financial statements, and neither a written report nor oral advice was provided to the Company that BDO, concluded was an important factor considered by the Company in reaching a decision as to any accounting, auditing, or financial reporting issue; or (ii) any matter that was the subject of a disagreement (as defined in Item 304(a)(1)(iv) of Regulation S-K and its related instructions) or a reportable event (as described in Item 304(a)(1)(v) of Regulation S-K).

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 | 2025 | 2024 |
|--------------------|---------------------|---------------------|
| Audit Fees | \$ 1,461,383 | \$ 2,203,592 |
| Audit-Related Fees | — | — |
| Tax Fees | — | — |
| All Other Fees | — | — |
| Total Fees | <u>\$ 1,461,383</u> | <u>\$ 2,203,592</u> |

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 2025 and 2024, 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 2025 and 2024.

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 BDO as our independent registered public accounting firm requires the affirmative vote of a majority of the votes cast by the holders of our Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon. 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 BDO USA, P.C. AS OUR INDEPENDENT
REGISTERED PUBLIC ACCOUNTING FIRM FOR THE FISCAL YEAR ENDING DECEMBER 31, 2026
(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. 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 independent registered public accounting firm for the fiscal year ended December 31, 2025, 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, 2025, the Audit Committee has (i) reviewed and discussed with management the Company's audited consolidated financial statements as of December 31, 2025, 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, 2025, for filing with the SEC.

As noted previously in this Proxy Statement, the Audit Committee has selected BDO USA, P.C. to audit the Company's financial statements for the year ending December 31, 2026.

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 Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon. 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 2025. 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 2027 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 Common Stock present in person, including by means of remote communication, or represented by proxy and entitled to vote thereon. 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)**

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 seven directors currently serving on the Board. 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.

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, Nigel Gormly, Dorri McWhorter, Jim Messina and Thierry Pilenko 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 2025, there were thirteen 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. Seven of our nine 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 2025 for each of the Audit Committee, Nominating and Governance Committee and Compensation Committee. Dr. Holmgren is not a member of the Audit Committee, Compensation Committee or the Nominating and Governance Committee.

| Name | Audit Committee | Compensation Committee | Nominating and Governance Committee |
|-----------------------------|---|---|---|
| Reyad Fezzani |  |  | |
| Nigel Gormly |  | |  |
| Dorri McWhorter |  | |  |
| Jim Messina | |  |  |
| Barbara Moakler Byrne |  |  | |
| Thierry Pilenko | |  | |
| Total Meetings Held in 2025 | 4 | 3 | 3 |

 - 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 are 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 are 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, Reyad Fezzani, Jim Messina and Thierry Pilenko. Reyad Fezzani serves as the chairperson of the Compensation Committee. Each of Barbara Byrne, Reyad Fezzani, Jim Messina and Thierry Pilenko are 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.

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. 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 of 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 incorporated by reference as an exhibit to our annual report on Form 10-K for the year ended December 31, 2025.

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 Standards 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 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 assessments 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 cyber insurance coverage as part of our overall insurance portfolio.

Governance Related to Cybersecurity Risks

The Audit Committee of the Board has oversight of management’s efforts with respect to IT systems and cybersecurity. Historically, the Company’s cybersecurity program was overseen by the Company’s Chief Information Security Officer (“CISO”). The Company’s former CISO resigned in June 2025, and the Company is currently evaluating options regarding the role. In the interim, certain cybersecurity monitoring and oversight activities are performed by the Company’s Senior Information Technology Systems Manager, who has over 15 years of experience in information technology and enterprise systems. The Senior Information Technology Systems Manager reviews aspects of the Company’s information security posture, cybersecurity controls, and monitoring activities and escalates matters to senior management as appropriate. The Company also utilizes external service providers to support certain cybersecurity monitoring and security management activities. 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 2025 our executive officers, directors, and greater-than-10% stockholders timely filed all reports required by Section 16(a), except as set forth below.

As of the date of this proxy statement, the reports described below have not been filed. The Company is working with the applicable reporting persons and intends to file the required reports as soon as practicable.

| Reporting Person(s) | Form Failed to File | Number of Unfiled Reports | Number of Transactions Not Timely Reported | Description |
|---|----------------------------|----------------------------------|---|--|
| Freya Burton; Robert Conrado; Jennifer Holmgren; Michael Köpke; Zara Summer | Form 4 | 1 each | 5 each | Three transactions related to the vesting of restricted share units, or RSUs, and two transactions involving sales or withholding of shares to satisfy tax withholding obligations, in each case on March 6, 2025. |
| Chad Thompson | Form 4 | 1 | 4 | Two transactions related to the vesting of RSUs and two transactions involving sales or withholding of shares to satisfy tax withholding obligations, in each case on March 6, 2025. |
| Nigel Gormly; Dorri McWhorter; Jim Messina; Barbara Byrne; Gary Rieschel | Form 4 | 1 each | 1 each | One transaction related to the vesting of RSUs on March 6, 2025. |
| Justin Pugh; Jill Frizzley | Form 3 | 1 | N/A | Initial statement of beneficial ownership required in connection with his appointment as Interim Chief Financial Officer. |

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 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 receives annual cash compensation of \$60,000 for service on the Board. The plan also contemplates annual incentive compensation in the form of time-vested restricted stock units ("RSUs") with a target value of \$100,000. Upon the recommendation of the Compensation Committee, however, the Board did not grant annual RSU awards to non-employee directors in 2025. 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 non-employee directors for fiscal 2025.

| Name | Fees earned or paid in cash (\$) | Stock Awards ⁽¹⁾ (\$) | Total Compensation (\$) |
|-----------------------|---|--|-------------------------------|
| Jill Frizzley | \$ 400,000 ⁽²⁾ | \$ - | \$ 400,000 |
| Jim Messina | 107,500 | - | 107,500 |
| Nigel Gormly | 88,624 | - | 88,624 |
| Dorri McWhorter | 85,000 | - | 85,000 |
| Barbara Moakler Byrne | 78,852 | - | 78,852 |
| Thierry Pilenko | 71,851 | - | 71,851 |
| Reyad Fezzani | 71,250 | - | 71,250 |
| Gary Rieschel | 43,750 ⁽³⁾ | - | 43,750 |

Footnotes

- (1) The Company did not grant equity awards to non-employee directors during 2025.
- (2) In connection with Ms. Frizzley appointment to the Board, the Company entered into an engagement agreement with Ms. Frizzley that provided fixed monthly fee of \$40,000 monthly associated with activities outside the scope of normal Board duties. Ms. Frizzley resigned from the Board effective January 31, 2026.
- (3) Mr. Rieschel did not stand for re-election to the Board at the Board Meeting on July 21, 2025.

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 III Directors with Terms Expiring in 2027” above.

| Name | Age | Position(s) |
|--------------------------|-----|--------------------------------------|
| Jennifer Holmgren, Ph.D. | 65 | Chief Executive Officer and Director |
| Sushmita Koyanagi | 48 | Chief Financial Officer |
| Freya Burton | 45 | Chief Sustainability Officer |
| Robert Conrado, Ph.D. | 43 | Chief Technology Officer |
| Michael Köpke, Ph.D. | 45 | Chief Innovation Officer |
| Zarath Summers, Ph.D. | 43 | Chief Strategy Officer |
| Chad Thompson | 56 | 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.

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 member at Northwestern University and as a council member of the Engineering Biology Research Consortium, where he chairs the roadmapping working group. Dr. Köpke holds a M.Sc. in Biology and a Ph.D. in Biotechnology from the University of Ulm. Dr. Köpke is an inventor of over 500 patents and an awardee of the Presidential Green Chemistry Challenge award for Greener Synthetic Pathways and ACS National award for Team Innovation.

Zarath Summers, Ph.D. has served as Chief Strategy Officer since August 2025 and previously as 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 2025 named executive officers (“NEOs”), and their corporate titles as of December 31, 2025, are as follows:

| 2025 NAMED EXECUTIVE OFFICERS | |
|-------------------------------|--------------------------------|
| Name | Title |
| Jennifer Holmgren, Ph.D. | Chief Executive Officer |
| Sushmita Koyanagi | Chief Financial Officer |
| Zara Summers | Chief Strategy Officer |
| Aura Cuellar | Former President |
| Geoff Trukenbrod | Former Chief Financial Officer |

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, 2025 and 2024.

| Name and Principal Position | Year | Salary (\$) | Bonus (\$) | Stock Awards ⁽¹⁾ (\$) | Option Awards ⁽²⁾ (\$) | All Other Compensation ⁽³⁾ (\$) | Total (\$) |
|---|------|----------------|---------------|--|---|--|---------------|
| Jennifer Holmgren, Ph.D. <i>Chief Executive Officer</i> | 2025 | 630,000 | – | – | – | 12,559 | 642,559 |
| | 2024 | 771,923 | – | 1,509,737 | 2,780,037 | 9,333 | 5,071,031 |
| Sushmita Koyanagi <i>Chief Financial Officer⁽⁴⁾</i> | 2025 | 335,038 | 37,500 | – | – | 11,717 | 384,255 |
| Zara Summers <i>Chief Strategy Officer⁽⁴⁾</i> | 2025 | 334,423 | – | – | – | 10,041 | 344,464 |
| Aura Cuellar <i>Former President</i> | 2025 | 244,646 | – | – | – | 359,135 | 603,781 |
| | 2024 | 381,608 | 125,000 | 251,621 | 463,340 | 7,463 | 1,229,031 |
| Geoff Trukenbrod <i>Former Chief Financial Officer⁽⁴⁾</i> | 2025 | 36,385 | – | – | – | 443,165 | 479,550 |

(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 2025 Annual Report. 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 equity 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 2025 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) Includes matching contributions under the Company's 401(k) retirement savings plan and employer-paid premiums on group term life insurance. In the case of Ms. Cuellar and Mr. Trukenbrod, the amount includes \$350,000 of severance compensation paid in connection with Ms. Cuellar's resignation in August 2025 and \$441,790 of severance compensation paid in connection with Mr. Trukenbrod's resignation from the Company in January 2025.
- (4) Ms. Koyanagi, Ms. Summers, and Mr. Trukenbrod were not NEOs during the fiscal year ended December 31, 2024, as a result their respective salaries for those periods are not disclosed.

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 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 with Dr. Holmgren, Ms. Koyanagi and Ms. Summers, who were serving as named executive officers as of December 31, 2025, provide for at-will employment and base salaries that may be adjusted by the Board from time to time. In connection with the Company's 2025 cost-management efforts, Dr. Holmgren and Ms. Summers agreed to temporary reductions in annual base salary during 2025.

At the beginning of 2025, the annual base salaries for Dr. Holmgren, Ms. Koyanagi and Ms. Summers were \$780,000, \$325,000 and \$370,000, respectively. As of December 31, 2025, following the temporary salary reductions for Dr. Holmgren and Ms. Summers, and the promotion of Ms. Koyanagi to Chief Financial Officer in June 2025, the annual base salaries for Dr. Holmgren, Ms. Koyanagi and Ms. Summers were \$546,000, \$370,000 and \$334,423, respectively. The salary amounts actually paid to Dr. Holmgren, Ms. Koyanagi and Ms. Summers during 2025 were \$630,000, \$335,038 and \$334,423, respectively, as reflected in the Summary Compensation Table above.

Pursuant to their employment arrangements with the Company, Mr. Trukenbrod and Ms. Cuellar had annual base salaries of \$430,000 and \$400,000, respectively. Because Mr. Trukenbrod resigned in January 2025 and Ms. Cuellar resigned in August 2025, the salary actually paid to them in 2025 was \$36,385 and \$244,646, respectively.

Annual cash bonus

The named executive officers were eligible to receive discretionary annual cash bonuses determined in accordance with the Company's bonus policy as in effect from time to time. Dr. Holmgren, Mr. Koyanagi and Ms. Summers had target cash bonuses of 100%, 70% and 60%, respectively, of their base salaries. No cash bonus payouts were made to any named executive officer with respect to fiscal year 2025.

Severance

In connection with their resignations from the Company in 2025, Mr. Trukenbrod and Ms. Cuellar received cash severance payments of \$441,790 and \$350,000, respectively.

Equity awards

Subject to the approval of the Board, each named executive officer is eligible for discretionary equity awards under his or her Employment Agreement and the 2023 Plan. There were no equity awards granted to named executive officers during 2025.

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 the executive's then-current base salary for 18 months, in the case of Dr. Holmgren, 12 months, in the case of Ms. Summers, and 6 months, in the case of Ms. Koyanagi; (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, payment of the portion of the executive's COBRA premium attributable to the employer contributions the Company would have paid had the executive remained employed for up to 18 months, in the case of Dr. Holmgren, 12 months, in the case of Ms. Summers, and 6 months, in the case of Ms. Koyanagi. 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 to 24 months of the executive's then-current base salary, in the case of Dr. Holmgren, 18 months, in the case of Ms. Summers, and 9 months, in the case of Ms. Koyanagi. 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, if any, 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.

Outstanding Equity Awards as of December 31, 2025

The following table provides information regarding outstanding equity awards held by our named executive officers as of December 31, 2025.

| 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 (\$) ⁽¹⁾ | Number of shares or units of stock that have not vested (#) | Market value of shares or units of stock that have not vested (\$) ⁽¹⁾ |
| Jennifer Holmgren, Ph. D. | 9/20/2017 ⁽²⁾ | 9,842 | – | \$138 | 9/20/2027 | | | | |
| | 6/26/2020 ⁽³⁾ | 10,559 | – | \$107 | 6/26/2030 | | | | |
| | 5/2/2023 ⁽⁴⁾ | 7,634 | 3,815 | \$328 | 5/2/2033 | | | | |
| | 4/5/2024 ⁽⁵⁾ | 4,065 | 8,129 | \$310 | 4/5/2034 | | | | |
| | 5/2/2023 ⁽⁶⁾ | | | | | 26,000 | \$357,760 | | |
| | 5/2/2023 ⁽⁷⁾ | | | | | | | 1,000 | \$13,760 |
| | 4/5/2024 ⁽⁸⁾ | | | | | | | 3,246 | \$44,665 |
| Zara Summers | 1/27/2023 ⁽⁹⁾ | 328 | 109 | \$997 | 1/27/2033 | | | | |
| | 5/2/2023 ⁽⁴⁾ | 764 | 381 | \$328 | 5/2/2033 | | | | |
| | 4/5/2024 ⁽⁵⁾ | 542 | 1,083 | \$310 | 4/5/2034 | | | | |
| | 8/22/2023 ⁽¹⁰⁾ | | | | | 306 | \$4,211 | | |
| | 5/2/2023 ⁽⁷⁾ | | | | | | | 366 | \$5,036 |
| | 5/11/2023 ⁽¹¹⁾ | | | | | | | 84 | \$1,156 |
| | 4/5/2024 ⁽⁸⁾ | | | | | | | 432 | \$5,944 |
| Geoff Trukenbrod | 5/2/2023 ⁽⁶⁾ | | | | | 2,488 | \$34,235 | | |

- (1) Based on the Company December 31, 2025 stock price value of \$13.76 per share.
- (2) The stock options granted on September 20, 2017 fully vested. The stock options have a ten-year term.
- (3) 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.
- (4) 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.
- (5) 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.
- (6) 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 \$1,150 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 the first installment vesting on February 10, 2024. Both vesting conditions must be met by February 10, 2028, or else performance share units will be forfeited.
- (7) 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.
- (8) 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.
- (9) The stock options granted on January 24, 2023 vest in four equal annual installments, with such first installment time vesting on January 24, 2023. The stock options have a ten-year term.
- (10) The performance share units granted on August 22, 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 \$1,150 using any 20-day look-back period, which period may begin no earlier than 151 days following August 22, 2023. The time vesting condition is met in three equal annual installments, with the first installment vesting on August 22, 2024. Both vesting conditions must be met by August 22, 2028, or else performance share units will be forfeited.
- (11) The restricted stock units granted on May 11, 2023 vest in three equal annual installments, with such first installment time vesting on March 6, 2024.

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 2025, we did not award options to any of our 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 ^(a) | Compensation Actually Paid to PEO ^(b) | Average Compensation Summary Table Total for Non-PEO Named Executive Officers ^(a) | Average Compensation Actually Paid to Non-PEO Named Executive Officers ^(b) | Value of Initial Fixed \$100 Investment Based on Total Stockholder Return ^(c) | Net Loss (\$ in millions) ^(d) |
|------|---|--|--|---|--|--|
| 2025 | \$ 642,559 | \$(6,124,054) | \$ 453,012 | \$ 340,694 | \$ 1.39 | \$ (49.0) |
| 2024 | \$ 5,071,031 | \$(5,706,167) | \$ 1,284,685 | \$(1,034,313) | \$ 14 | \$ (137.7) |
| 2023 | \$ 8,849,858 | \$ 13,892,972 | \$ 1,632,090 | \$ 1,961,653 | \$ 51 | \$ (134.1) |

(a) Compensation for our PEO, Dr. Holmgren, reflects the amounts reported in the Summary Compensation Table for each respective year. Average compensation for our other NEOs in 2025 includes the following individuals: Ms. Koyanagi, Ms. Summers, Ms. Cuellar, and Mr. Trukenbrod. Average compensation for our other NEOs in 2024 includes the following individuals: Joseph Blasko, our former General Counsel and Corporate Secretary, and Ms. Cuellar, our former President. Average compensation for our other NEOs in 2023 includes the following individuals: Mr. Trukenbrod, our former Chief Financial Officer, Steven Stanley, our

former Chief Commercial Officer, and Dr. Sean Simpson, our former Chief Scientific Officer. For 2023 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.

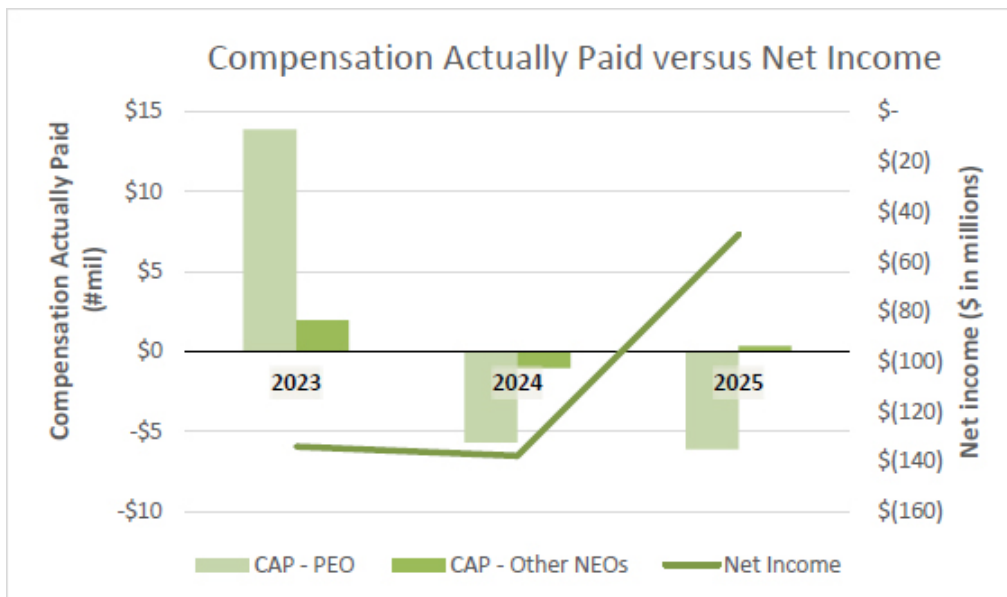
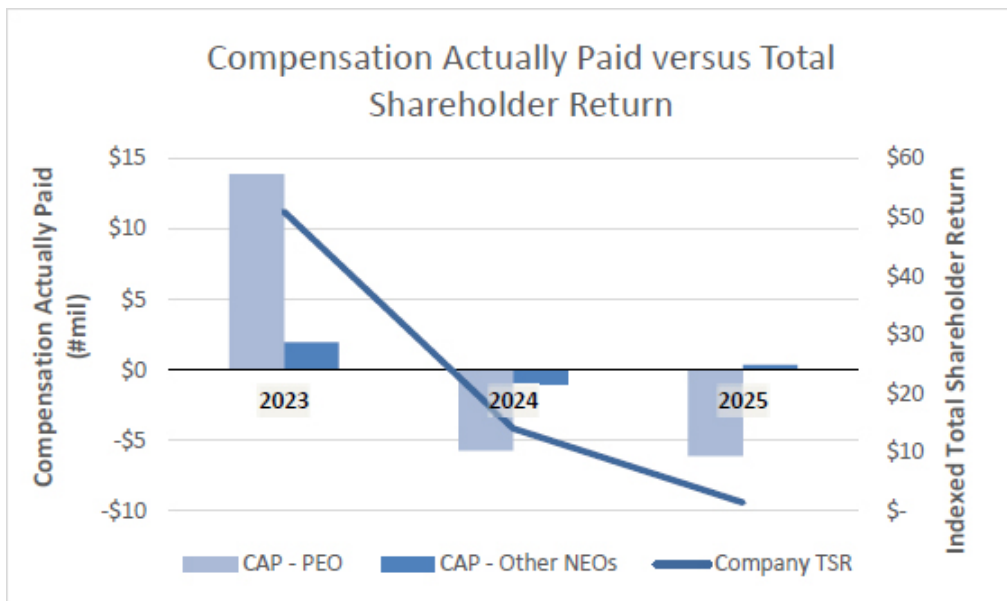
(c) TSR is cumulative for the measurement periods beginning on December 31, 2021 and ending on December 31 of each of 2025, 2024 and 2023, respectively, calculated in accordance with Item 201(e) of Regulation S-K.

(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, 2025, 2024 and 2023. For fiscal year 2023 the amount accounts for applicable pre-Business Combination financial information of our predecessor company, LanzaTech NZ, Inc.

| | PEO 2025 | Other NEOs 2025 | PEO 2024 | Other NEOs 2024 | PEO 2023 | Other NEOs 2023 |
|--|----------------|-----------------|----------------|-----------------|----------------|-----------------|
| Total Compensation Report | \$ 642,559 | \$ 453,012 | \$ 5,071,031 | \$ 1,284,685 | \$ 8,849,858 | \$ 1,632,090 |
| Less Stock Award Value Reported in Summary Compensation Table for the Covered Year | \$ - | \$ - | \$ (4,289,774) | \$ (714,961) | \$ (7,969,847) | \$ (1,155,971) |
| Plus 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 |
| Plus Fair Value as of the Vesting Date for Awards Granted and Vested in the Covered Year | \$ - | \$ - | \$ - | \$ - | \$ - | \$ 32,620 |
| Change in Fair Value of Outstanding Unvested Awards from Prior Years that were Outstanding as of the End of the Covered Fiscal Year | \$ (6,059,711) | \$ (85,066) | \$ (8,617,476) | \$ (2,294,756) | \$ (555,802) | \$ (3,163) |
| Change as of the Vesting Date in Fair Value of Awards from Prior Years that Vested in the Covered Fiscal Year | \$ (703,902) | \$ (27,252) | \$ 254,309 | \$ 41,349 | \$ (430,071) | \$ 18,975 |
| Less Fair Value of Awards Forfeited during the Covered Year | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Plus Fair Value of Incremental Dividends or Earnings Paid on Stock Awards | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Less Aggregate Change in Actuarial Present Value of Accumulated Benefit Under Pension Plans | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Plus Aggregate Service Cost and Prior Service Cost for Pension Plans | \$ - | \$ - | \$ - | \$ - | \$ - | \$ - |
| Compensation Actually Paid | \$ (6,121,054) | \$ 340,694 | \$ (5,706,167) | \$ (1,034,313) | \$ 13,892,972 | \$ 1,961,653 |

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;
- 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 10,089,582 shares of our Common 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 ⁽⁹⁾ |
|--|--|--|
| Directors and Named Executive Officers of LanzaTech:⁽¹⁾ | | |
| Jennifer Holmgren, Ph.D. ⁽²⁾ | 78,501 | * |
| Sushmita Koyanagi | – | – |
| Zara Summers ⁽³⁾ | 3,843 | * |
| Aura Cuellar | – | – |
| Geoff Trukenbrod | – | – |
| Dorri McWhorter | 524 | * |
| Jim Messina ⁽⁴⁾ | 11,729 | * |
| Nigel Gormly | 524 | * |
| Barbara Moakler Byrne | 524 | * |
| Thierry Pilenko | – | – |
| Reyad Fezzani | – | – |
| All Directors and Executive Officers of LanzaTech as a Group (16 individuals) | 131,390 | 1.3% |
| Five Percent Holders: | | |
| Khosla Ventures ⁽⁵⁾ | 11,478,998 | 64.2% |
| Siteground Capital LTD ⁽⁶⁾ | 2,255,484 | 22.4% |
| Guardians of New Zealand Superannuation ⁽⁷⁾ | 1,302,492 | 12.9% |
| K One W One Group ⁽⁸⁾ | 1,129,742 | 11.2% |

* 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) 31,541 shares of Common Stock and (ii) 46,960 shares of Common Stock subject to options exercisable within 60 days of April 28, 2026.
- (3) Consists of (i) 1,177 shares of Common Stock and (ii) 2,666 shares of Common Stock subject to options exercisable within 60 days of April 28, 2026.
- (4) Consists of (i) 5,373 shares of Common Stock and (ii) 6,355 shares of Common Stock subject to options exercisable within 60 days of April 28, 2026.
- (5) Consists of (i) 3,678,998 shares of Common Stock and (ii) a warrant convertible into 7,800,000 of Common Stock. Based solely on the Schedule 13D/A filed with the SEC on January 29, 2026 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 11,478,998 shares of Common Stock in the aggregate. 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 138,753 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 11,478,998 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.
- (6) The business address of Siteground Capital LTD is Flat 106, 8 Michail Karaoli, Nicosia, 1095, Cyprus.
- (7) The business address of Guardians of New Zealand Superannuation is 21 Queen Street Level 12, Auckland 1010, New Zealand.
- (8) The business address of K One W One Group is Level 4, 4 Graham Street, Auckland Central, Auckland, 1010, New Zealand.
- (9) The percentages in the table have been calculated on the basis of treating as outstanding for a particular stockholder or group of stockholders, as applicable, all shares of our Common Stock as outstanding, and we include in the numerator and denominator all shares of our Common Stock underlying options and other derivative securities owned by that stockholder as exercisable or will become exercisable within 60 days of April 28, 2026. For this reason, the denominator used in calculating beneficial ownership among our stockholders may differ.

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

Unless otherwise noted, Common Stock share and per share amounts in this section give effect to the Company's 1-for-100 reverse stock split effective August 18, 2025.

Preferred Stock Purchase Agreement, Preferred Stock Conversion and PIPE Warrant

On May 7, 2025, the Company and LanzaTech Global SPV, LLC (the "Preferred Stockholder"), an entity controlled by Khosla Ventures, a beneficial owner of more than five percent of the Company's voting securities, entered into a Series A Convertible Senior Preferred Stock Purchase Agreement, as amended on June 2, 2025 and September 22, 2025 (as amended, the "Preferred Stock Purchase Agreement"). Pursuant to the Preferred Stock Purchase Agreement, the Company agreed to issue and sell 20 million shares of Series A Convertible Senior Preferred Stock (the "Preferred Stock") to the Preferred Stockholder for a purchase price of \$2.00 per share, or an aggregate purchase price of \$40.0 million, and such purchase and issuance of Preferred Stock was consummated on May 7, 2025.

On January 21, 2026, in connection with the January 2026 Financing described below, the Company filed an amended and restated certificate of designation relating to the Preferred Stock. As a result, all 20 million shares of Preferred Stock held by the Preferred Stockholder automatically converted into 3,250,322 shares of Common Stock, and the Preferred Stock's mandatory redemption provisions were eliminated.

In addition, pursuant to the Preferred Stock Purchase Agreement, on January 21, 2026, concurrently with the January 2026 Financing, the Company issued to the Preferred Stockholder a warrant (the "PIPE Warrant") to purchase 7.8 million shares of Common Stock (the "PIPE Warrant Shares") at an exercise price of \$0.0000001 per share. The PIPE Warrant is exercisable at any time prior to 5:00 p.m., New York City time, on December 31, 2026, and, if unexercised, will be automatically exercised on a cashless (net-share) basis immediately prior to its expiration. In connection with the foregoing, the Company and the Preferred Stockholder entered into a waiver under which the Preferred Stockholder waived the original deadline for filing a resale registration statement for the PIPE Warrant Shares, and the Company agreed to file such resale registration statement within 60 business days following the issuance of the PIPE Warrant Shares to the Preferred Stockholder.

Convertible Note Purchase Agreement and Conversion

On August 5, 2024, the Company entered into a Convertible Note Purchase Agreement (the "Convertible Note Purchase Agreement") with Carbon Direct Fund II Blocker I LLC ("Carbon Direct Capital"), pursuant to which the Company agreed to sell and issue to Carbon Direct Capital and other purchasers, in a private placement transaction (the "Private Placement"), in one or more closings, up to an aggregate principal amount of \$150.0 million of convertible notes. On August 6, 2024, the Company issued and sold to Carbon Direct Capital, pursuant to the Convertible Note Purchase Agreement, a convertible note in an original principal amount of \$40.15 million (the "Convertible Note").

On May 7, 2025, the Company consummated a Qualified Equity Financing through the issuance of the Preferred Stock, resulting in the conversion of the Convertible Note into 340,543 shares of Common Stock pursuant to the mandatory conversion provision of the Convertible Note.

Private Placement

On January 21, 2026, the Company completed a private placement of its Common Stock to certain existing and new institutional investors pursuant to subscription agreements, issuing 4 million shares (the "Subscribed Shares") at \$5.00 per share for gross proceeds of \$20.0 million, and 510,968 bonus shares to such investors in consideration for funding their purchase price no later than January 21, 2026 (the "January 2026 Financing"). The securities were issued pursuant to an exemption from registration under Section 4(a)(2) of the Securities Act.

K One W One Group, a beneficial owner of more than five percent of the Company's voting securities, subscribed for and purchased 1 million shares of Common Stock in the January 2026 Financing for an aggregate purchase price of \$5.0 million and received 127,742 additional shares of Common Stock for no additional consideration pursuant to the early funding bonus share provisions of its subscription agreement. Following these issuances, K One W One Group beneficially owned 1,129,742 shares of Common Stock.

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 2027 Annual Meeting of Stockholders pursuant to Rule 14a-8 must be received by us no later than December 30, 2026, unless the date of our 2027 Annual Meeting of Stockholders is more than 30 days before or after June 23, 2027, 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 2027 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 Lamont 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 March 25, 2027 nor earlier than the opening of business on February 23, 2027; provided, however, that if the date of the 2027 Annual Meeting of Stockholders is more than 30 days before or more than 60 days after June 23, 2027, 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, including providing the notice required by Rule 14a-19(b) no later than 60 calendar days before the anniversary of the date of the 2026 Annual Meeting of Stockholders, unless the date of the 2027 Annual Meeting of Stockholders changes by more than 30 calendar days from such anniversary date, in which case such notice must be provided by the later of 60 calendar days before the date of the 2027 Annual Meeting of Stockholders or the 10th calendar day following the day on which public announcement of the date of the 2027 Annual Meeting of Stockholders is first made.

ANNUAL REPORT

We will provide to any stockholder entitled to vote at our Annual Meeting, at no charge, a copy of our 2025 Annual Report, including the financial statements contained therein. Requests should be directed to: LanzaTech Global, Inc., 8045 Lamont 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/ Maryann Maas

Maryann Maas
Interim General Counsel

April 29, 2026

Skokie, Illinois

LanzaTech

LanzaTech



YOUR VOTE IS IMPORTANT. PLEASE VOTE TODAY.

2026

**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 June 22, 2026.



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/2026



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 AND 3.

Please mark your votes like this



1. Election of Class III Directors

- (1) Dorri McWhorter
- (2) Jim Messina

| | | |
|----------------------------|---------------------------------|-----------------------------------|
| <small>FOR ALL</small> | <small>WITHHOLD ALL</small> | <small>FOR ALL EXCEPT</small> |
| <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 BDO USA, P.C. as our independent registered public accounting firm for the fiscal year ended December 31, 2026.

| | | |
|--------------------------|--------------------------|--------------------------|
| <small>FOR</small> | <small>AGAINST</small> | <small>ABSTAIN</small> |
| <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.

| | | |
|--------------------------|--------------------------|--------------------------|
| <small>FOR</small> | <small>AGAINST</small> | <small>ABSTAIN</small> |
| <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

CONTROL NUMBER

Signature _____ Signature, if held jointly _____ Date _____ 2026.
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 2026 Proxy Statement, 2025 Annual Report
and to attend the Annual Meeting, please go to:
<https://www.cstproxy.com/lanzatech/2026>**

▲ 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 and appoints Jennifer Holmgren and Maryann Maas, 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 June 23, 2026, 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 III 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 AND 3, 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)
