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

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

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Filed by the Registrant

Filed by a Party other than the Registrant

Check the appropriate box:

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

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**LanzaTech Global, Inc.**

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(Name of Registrant as Specified in its Charter)

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

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Payment of Filing Fee (Check the appropriate box):

- No fee required.
- Fee paid previously with preliminary materials.
- Fee computed on table in exhibit required by Item 25(b) per Exchange Act Rules 14a-6(i)(1) and 0-11.
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**You May Vote Your Proxy When You View The Material On The Internet. You Will Be Asked To Follow The Prompts To Vote Your Shares.**

**LanzaTech Global, Inc.**  
c/o Continental Proxy Services  
1 State Street, New York NY 10004

**LanzaTech Global, Inc.**  
8045 Lamon Avenue, Suite 400  
Skokie, IL 60077

**NOTICE OF ANNUAL MEETING  
OF SHAREHOLDERS**

to be held on  
July 28, 2025

\*Stockholders are cordially invited to attend the virtual Annual Meeting and vote online during the meeting.

Dear Stockholder,

The 2025 Annual Meeting of Stockholders of LanzaTech Global, Inc. will be held on July 28, 2025 at 2:00 p.m. (Central Daylight Time) at <https://www.cstproxy.com/lanzatech/2025>.

Proposals to be considered at the Annual Meeting:

- (1) To elect two Class II directors to the Board of Directors to serve until the 2028 Annual Meeting of Stockholders;
- (2) To ratify the appointment of Deloitte & Touche LLP as our independent registered public accounting firm for the fiscal year ending December 31, 2025;
- (3) To approve, on an advisory (non-binding) basis, the compensation of our named executive officers;
- (4) To approve an amendment to LanzaTech's Second Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") to increase the number of authorized shares of LanzaTech's common stock ("Common Stock") from 600,000,000 to 2,580,000,000 (which will result in an increase in the total number of authorized shares of capital stock of the Company from 620,000,000 to 2,600,000,000) (the "Increased Authorized Share Proposal");
- (5) To approve an amendment to the Certificate of Incorporation to (a) effect a reverse stock split of the Common Stock, at a ratio of 100-for-1 (the "Reverse Stock Split Proposal") and (b) if the Increased Authorized Share Proposal and Reverse Stock Split Proposal are implemented, proportionately decrease the authorized number of shares of Common Stock, which will result in a corresponding decrease in the total number of authorized shares of capital stock of the Company (the "Split-Related Proposals");
- (6) To approve an amendment to the Certificate of Incorporation to permit stockholders to act by written consent (the "Action by Written Consent Proposal");
- (7) To approve an amendment to the Certificate of Incorporation to decrease the par value of the Common Stock from \$0.0001 to \$0.0000001 (the "Par Value Proposal");
- (8) To approve for purposes of Nasdaq Listing Rule 5635(b) any "change of control" resulting from the issuance of shares of Common Stock upon conversion of LanzaTech's Series A Convertible Senior Preferred Stock, par value \$0.0001 per share ("Preferred Stock"), the exercise of a warrant to purchase 780,000,000 shares of Common Stock (the "Warrant") and in connection with a Financing (as such term is defined in the Proxy Statement) (the "Nasdaq Listing Rule 5635(b) Proposal");
- (9) To approve for purposes of Nasdaq Listing Rule 5635(d) LanzaTech's ability to issue Common Stock upon conversion of the Preferred Stock, the exercise of the Warrant and in connection with a Financing, which shares, independently or when aggregated, would exceed 19.9% of the number of outstanding shares of Common Stock prior to such transactions (the "Nasdaq Listing Rule 5635(d) Proposal"); and
- (10) To approve one or more adjournments of the Annual Meeting to a later date or dates, if deemed by the Chairperson of the meeting to be necessary or appropriate, including to solicit additional proxies if there are insufficient votes to approve the preceding proposals at the time of the Annual Meeting or any adjournment or postponement thereof, or in the absence of a quorum (the "Adjournment Proposal").
- (11) To transact such other business as may properly come before the Annual Meeting or any adjournment or postponement thereof at the direction of the Board of Directors.

The Board of Directors recommends a vote "FOR" all nominees under Proposal 1, and "FOR" Proposals 2 – 10.

Your electronic vote authorizes the named proxies to vote your shares in the same manner as if you marked, signed, dated, and returned the proxy card.



**Attend and Vote during the Meeting –**

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



**Vote Your Proxy on the Internet:**

Go to <http://www.cstproxyvote.com> Have your notice available when you access the above website. Follow the prompts to vote your shares.

CONTROL NUMBER

The Proxy Materials are available for review at:  
<https://www.cstproxy.com/lanzatech/2025>

**LanzaTech Global, Inc.**  
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**Important Notice Regarding the Availability of Proxy Materials  
For the 2025 Annual Meeting of Stockholders to be Held On July 28, 2025**

The following Proxy Materials are available to you to review at: <https://www.cstproxy.com/lanzatech/2025>

- the Company's Annual Report on Form 10-K for the year ended December 31, 2024;
- the Company's notice and 2025 proxy statement;
- the proxy card; and
- any amendments to the foregoing materials that are required to be furnished to stockholders.

This is not a ballot. You cannot use this notice to vote your shares. This communication presents only an overview of the more complete proxy materials that are available to you on the Internet. We encourage you to access and review all of the important information contained in the proxy materials before voting.

If you would like to receive a paper or e-mail copy of these documents, you must request one. There is no charge for such documents to be mailed to you. Please make your request for a copy as instructed below on or before July 14, 2025 to facilitate a timely delivery. You may also request that you receive paper copies of all future proxy materials from the Company.

**ACCESSING YOUR PROXY MATERIALS ONLINE**

Have this notice available when you request a paper copy of the proxy materials or to vote your proxy electronically. You must reference your Control number.

**REQUESTING A PAPER COPY OF THE PROXY MATERIALS**

By telephone please call 1-888-266-6791, or

By logging on to <https://www.cstproxy.com/lanzatech/2025> or

By email at: [proxy@continentalstock.com](mailto:proxy@continentalstock.com)

*Please include the company name and your control number in the subject line.*