

November 14, 2022

**VIA EDGAR**

United States Securities and Exchange Commission  
Division of Corporation Finance  
Office of Industrial Applications and Services  
100 F Street NE  
Washington, D.C. 20549  
Attn: Dillon Hagius and Laura Crotty

**Re: AMCI Acquisition Corp. II  
Amendment No. 1 to Registration Statement on Form S-4  
Filed October 12, 2022  
File No. 333-264811**

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Dear Mr. Hagius and Ms. Crotty:

On behalf of our client, AMCI Acquisition Corp. II, a Delaware corporation (the “Company” or “AMCI”), we are writing to submit the Company’s responses to the comments of the staff of the Division of Corporation Finance (the “Staff”) of the United States Securities and Exchange Commission (the “Commission”) contained in the Staff’s letter dated November 4, 2022 (the “Comment Letter”), with respect to the above-referenced Registration Statement on Form S-4, filed on October 12, 2022 (the “Registration Statement”).

The Company has filed via EDGAR Amendment No. 2 to the Registration Statement (“Amendment No. 2”), which reflects the Company’s responses to the comments received by the Staff and certain updated information. For ease of reference, each comment contained in the Comment Letter is printed below in bold and is followed by the Company’s response. All page references in the responses set forth below refer to page numbers in Amendment No. 2. Capitalized terms used but not defined herein have the meanings set forth in Amendment No. 2.

Amendment No. 1 to Registration Statement on Form S-4

Summary of the Proxy Statement/Prospectus  
Termination Rights of LanzaTech, page 34

- 1. Please update your disclosure here and on page 156 to clarify that, under the terms of the Merger Agreement, AMCI did not raise the necessary Proposed Additional Financing to meet the Minimum Closing Cash Condition by July 7, 2022 and, therefore, LanzaTech has the outstanding right to terminate the Business Combination. We note disclosure to this effect on pages 97 and 117. If known, please also disclose whether LanzaTech specified how much additional time it would permit before exercising these termination rights.**

Response: In response to the Staff’s comment, the Company has added disclosure on pages 36, 105 and 128 of Amendment No. 2 to clarify that the Company has not raised the necessary Proposed Additional Financing to meet the Minimum Cash Condition, and that LanzaTech has the outstanding right to terminate the Business Combination.

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Interests of AMCI's Directors and Officers in the Business Combination, page 35

2. We note your response to comment 10 and re-issue in part. Please revise the filing to confirm the conflicts of interest discussion highlights all material interests in the transaction held by the sponsor and the AMCI officers and directors. As currently drafted, you disclose only certain interests "among other things[.]" We note similar disclosure on page 132.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 37 and 144 of Amendment No. 2.

Risk Factors

We and LanzaTech have identified material weaknesses in our internal control over financial reporting, page 85

3. We note your disclosure that you identified a "nondisclosure" that represented a "quantitative and qualitative" material weakness in your internal control over financial reporting related to the accounting of certain fees owed to Evercore, which Evercore waived in connection with its resignation. Please clarify the nature of this material weakness and the amount of the "significant" error. Additionally, where appropriate, please revise the "Background of the Business Combination" section on page 109 and the "Resignations and Fee Waivers of the Advisors" section on page 118 to disclose:

- when the material weakness was discovered;
- when the material weakness was communicated to Evercore;
- whether the aggregate \$13.05 million in fees owed to and waived by Evercore accounted for this error.

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 93, 129 and 133 of Amendment No. 2 to clarify that the omitted contingent payment amounted to \$8.0 million, which was significant and therefore was determined to be a material error, although the error had no impact on the Company's condensed consolidated balance sheets, statements of cash flows or operations. AMCI did not provide and believes it was not required to provide for any purpose the substance or the circumstances of the material weakness to Evercore.

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The Business Combination Proposal  
Background of the Business Combination, page 109

**4. Please disclose when LanzaTech decided to restate its consolidated financial statements for the years ended December 31, 2021 and 2020 and how such restatements were considered in light of the pending Business Combination.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 128 and F-72 of Amendment No. 2. The Company advises the Staff that on August 16, 2022, the Audit Committee of the Board of Directors of LanzaTech, after discussion with management of LanzaTech and LanzaTech's independent registered public accounting firm, Deloitte & Touche LLP ("Deloitte"), concluded that LanzaTech's previously issued audited consolidated financial statements as of and for the fiscal years ended December 31, 2021 and December 31, 2020 should no longer be relied upon. The restatement of the financial statements primarily concerned the accounting of intra-entity profit eliminations between LanzaTech and LanzaJet, Inc. ("LanzaJet") and certain audit adjustments by LanzaTech's equity method investee, LanzaJet, affecting the amount of equity method losses that LanzaTech has recognized for the periods ended December 31, 2021 and December 31, 2020. LanzaTech also determined that errors identified during its audit, together with errors identified during LanzaTech's quarterly close process, aggregated to a material amount. Regarding the consideration of such restatements with respect to the pending Business Combination, the Company respectfully submits that the errors leading to the restatement were communicated to and discussed with AMCI upon their discovery and AMCI deemed the errors to be immaterial to the pending Business Combination.

**5. Please explain how you came to enter into the Brookfield Framework Agreement on October 2, 2022 and whether this was connected to your prior relationships with either Goldman, Evercore, or Barclays. Relatedly, please disclose whether the Brookfield Framework Agreement is the "third party capital" mentioned on page 117.**

Response: The Company advises the Staff that in late 2021, LanzaTech began exploring options to partner with infrastructure funds and investment firms to facilitate the investment of capital into projects. Discussions between LanzaTech and Brookfield Renewable Partners ("Brookfield") began in early 2022, following the wall-crossing of Brookfield and the introduction of LanzaTech to principals at Brookfield with whom AMCI had previously worked. After the introduction by AMCI, LanzaTech and Brookfield discussed the principles of the Brookfield Framework Agreement directly, agreeing on a term sheet and an exclusivity agreement in June 2022. Following the signing of a term sheet, Brookfield and LanzaTech began negotiating the definitive Brookfield Framework Agreement and Brookfield SAFE, which were entered into on October 2, 2022. LanzaTech's discussions with Brookfield were not connected to LanzaTech's or AMCI's prior relationships with either Goldman, Evercore or Barclays.

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In addition, the Company respectfully confirms that the reference on page 117 to “third party capital” is a reference to Brookfield. In response to the Staff’s comment, the Company has revised the disclosure on pages 118 and 128 of Amendment No. 2.

Resignations and Fee Waivers of the Advisors, page 118

6. We note your response to comment 48, specifically that “[t]he Advisors did not communicate to AMCI or LanzaTech the reasons leading to their respective resignations or the waiver of their fees after doing substantially all of the work to earn certain of their fees other than the work relating to the Proposed Additional Financing.” If true, please disclose that: (1) AMCI and LanzaTech did not seek out the reasons why the Advisors were resigning and forfeiting their fees and; (2) the Advisors refused to discuss the reasons for their resignations and forfeiture of fees with AMCI or LanzaTech.

Response: In response to the Staff’s comment, the Company has added disclosure on pages 45, 83, 86–87 and 130 of Amendment No. 2.

7. We note your response to comment 50, specifically your disclosure on page 119 that: (1) the Advisors received drafts of this proxy statement/prospectus prepared by AMCI and LanzaTech and provided limited comments in the ordinary course; (2) AMCI and LanzaTech provided drafts of this proxy statement/prospectus to the Advisors and requested confirmation that the Advisors agree with the disclosure in these drafts, and; (3) the Advisors have either stated that they do not intend to review the disclosure or have not responded to such request. Please revise your disclosure here and in the “Background of the Business Combination” section to specify:
- the nature and timing of the limited comments and which Advisor(s) provided such comments;
  - which Advisor(s) stated that they did not intend to review the disclosure;
  - which Advisor(s) have not responded to your request to review the disclosure. In addition, please reconcile your response with your statements on pages 43 and 119 that the Advisors did not advise AMCI or LanzaTech that they were in disagreement with the contents of this proxy statement/prospectus or the registration statement of which it forms a part, which implies their review.

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Response: The Company respectfully informs the Staff that counsel to Goldman Sachs, Barclays and Evercore provided comments at varying times during the preparation of the proxy statement/prospectus, including after the first filing of the registration statement clarifying the circumstances of Goldman Sachs' resignation and its disassociation with the disclosure in the proxy statement/prospectus as a result of its decision to withdraw from the transaction. As requested by the Staff, the Company has revised the disclosure on pages 46, 84, 87, 127 and 131 of Amendment No. 2 to state that the focus of other comments were to the proxy statement/prospectus generally and not on any specific disclosure regarding the circumstances surrounding the resignations of Goldman Sachs, Barclays and Evercore. In general, no substantive disclosure comments were received on behalf of Goldman Sachs, Barclays and Evercore after the last date of resignation. AMCI and LanzaTech provided such disclosure to Goldman Sachs, Barclays and Evercore and requested confirmation that they agree with the disclosure. Throughout the course of the drafting of the proxy statement/prospectus, counsel to Goldman Sachs, Barclays and Evercore has been involved and provided comments where applicable; however, such comments were not attributed to any particular Advisor, and neither AMCI nor LanzaTech are aware of which Advisor specifically reviewed or provided comments.

Certain LanzaTech Projected Financial Information, page 128

- 8. We note your response to comment 44. Please disclose whether any of the Advisors helped LanzaTech formulate the September 13, 2021 projections, the January 2022 Projections, or the revised September 2022 Projections.**

Response: In response to the Staff's comment, the Company has added disclosure on pages 46, 83, 86 and 130 of Amendment No. 2.

Shougang Joint Venture, page 219

- 9. We note your response to comment 36. Please revise your disclosure to clarify that LanzaTech holds its equity of Beijing Shougang LanzaTech Technology Co., Ltd. through its subsidiary, LanzaTech Hong Kong Limited. Please also include a diagram of the organizational structure of LanzaTech including the identity of the persons or entities that own the equity in each depicted entity. To the extent LanzaTech Hong Kong Limited is a wholly foreign-owned enterprise (WFOE), please make this clear.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 221 and 238–239 of Amendment No. 2 to clarify that LanzaTech holds its equity of Beijing Shougang LanzaTech Technology Co., Ltd. through its subsidiary, LanzaTech Hong Kong Limited, and to include a diagram of the organizational structure of LanzaTech. The Company respectfully advises the Staff that LanzaTech Hong Kong Limited is a limited liability company organized under the laws of Hong Kong and is not a wholly foreign-owned enterprise organized under the laws of the People's Republic of China.

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- 10. We note your disclosure on page 220 that LanzaTech entered into a letter agreement with Sinopec Capital Co., Ltd. and the Shougang Joint Venture on April 12, 2021. Please disclose whether Sinopec Capital Co., Ltd. or any member of the Shougang Joint Venture is related to China Petroleum & Chemical Corporation and, where appropriate, disclose any legal and operational risks associated with any significant ties to China as a result of this relationship. While certain of your risk factors on pages 68 and 69 refer to Sinopec Capital Co., Ltd as a “strategic investor located in China,” its connection to China Petroleum & Chemical Corporation is unclear.**

Response: The Company respectfully advises the Staff that based on publicly available information, LanzaTech understands Sinopec Capital Co., Ltd. (“Sinopec Capital”) to be a Chinese investment platform that was jointly established in 2018 by China Petrochemical Corporation (“Sinopec Group”) and China Petroleum & Chemical Corporation (“Sinopec Corp”). Sinopec Corp is a majority-owned subsidiary of Sinopec Group, which is controlled by the State-owned Assets Supervision and Administration Commission of the State Council of the People’s Republic of China. LanzaTech does not believe any members of the Shougang Joint Venture are affiliated with Sinopec Corp.

Sinopec Capital currently has the right to appoint one member to the board of directors of LanzaTech and has special consent and information rights as a preferred stockholder in LanzaTech. These rights are expected to terminate upon the closing of the Business Combination. Sinopec Capital does not currently have any ability to unilaterally determine, direct, take, reach, cause or decide any important matter for LanzaTech, whether through its existing board representation its or shareholder rights, which are related to its shareholdings of a class of preferred stock. Approval thresholds for actions are such that LanzaTech may obtain required stockholder approvals without Sinopec Capital’s consent. LanzaTech also does not believe there is significant risk that LanzaTech is or will be beholden to or dependent on Sinopec Capital for capital. Moreover, upon the closing of the anticipated Business Combination with AMCI, Sinopec Capital’s ownership interest in LanzaTech will be diluted.

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LanzaTech's licensing and commercial relationship with Sinopec Capital is only one of many relationships LanzaTech has with customers in multiple countries, including China, Japan, India, Canada, Australia, Italy, Spain, the United Kingdom, the Netherlands and South Africa, that have as their objective similar licensed commercial projects. LanzaTech currently operates primarily through a licensing model that is focused on generating licensing, royalty, and services fees from LanzaTech's commercialization efforts, while LanzaTech's partners own and operate the gas fermentation plants. LanzaTech has 1,233 granted patents relating to technology covering feedstocks, gasification, electrolysis, gas conditioning, and core fermentation, with more than 565 additional patents pending. Pursuant to a letter agreement between LanzaTech and Sinopec, Sinopec Capital has the right to participate in certain new LanzaTech projects. In connection with any such participation, LanzaTech expects that it would license to Sinopec Capital the use of its technologies and intellectual property, but not the trade secrets themselves. Sinopec Capital would use the licensed technologies and intellectual property to construct and commercialize its own gas fermentation facilities, with the ultimate goal of emission reductions across Sinopec Capital's operations in exchange for royalties. LanzaTech and Sinopec Capital also have as an objective under the letter agreement working together to industrialize and commercialize the combination of LanzaTech's gas fermentation technologies and Sinopec Capital's technologies synergistic to LanzaTech's to target new chemicals. If LanzaTech licenses its technology to Sinopec Capital, it, like other customers, will receive packages containing LanzaTech's proprietary microbe and other related supplies, which LanzaTech does not believe can be reverse-engineered.

Because LanzaTech's intellectual property is core to its business, LanzaTech maintains strong policies and procedures to protect its confidential information and, in particular, its trade secrets. All such information is stored in the United States on segregated, controlled-access servers, with access limited on a strict need-to-know basis. LanzaTech does not share any trade secrets with its customers or with its investors or their representatives on LanzaTech's Board.

In response to the Staff's comment, the Company has revised the disclosure on page 73 of Amendment No. 2 to clarify that Sinopec Capital Co., Ltd. is related to China Petroleum & Chemical Corporation. Given the factors described above, the Company respectfully advises the Staff that it believes that Amendment No. 2 otherwise appropriately discloses the relevant legal or operational risks associated with any significant ties to China resulting from LanzaTech's relationship with Sinopec Capital.

Beneficial Ownership of Securities, page 267

- 11. Please identify in footnotes to the table all natural persons who have voting and/or investment power over the shares held by: (1) Apollo Capital Management L.P.; (2) Adage Capital Partners, L.P.; (3) Shaolin Capital Management, LLC; and (4) Aristeia Capital, LLC.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages 291-292 of Amendment No. 2.

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Lanzatech NZ, Inc. Consolidated Financial Statements for the Years Ended December 31, 2021 and 2020 (restated)

Note 2. Summary of Significant Accounting Policies, Restatement, page F-67

- 12. Revise to quantify each individual error discussed on page F-68. In addition, the effects of the correction of the errors noted above on the relevant financial statement line items beginning on F-69 should be individually quantified for each material error.**

Response: In response to the Staff's comment, the Company has revised the disclosure on pages F-72–F73 of Amendment No. 2. The Company respectfully advises the Staff that LanzaTech has determined that none of the errors are individually material. As such, only the cumulative impact of the error correction is disclosed in tabular format while the individual impacts of the error correction have been included in the notes to the financial statements.

- 13. Regarding the errors in the Company's recorded share of LanzaJet losses for the years ended 2021 and 2020, revise to describe the nature of the adjustments made by LanzaJet to its financial statements for the years ended December 31, 2021 and 2020.**

Response: In response to the Staff's comment, the Company has revised the disclosure on page F-72 of Amendment No. 2.

Note 5. Investments, page F-96

- 14. We reference the disclosure on page F-81 that you determined your licensing arrangement with LanzaJet should have been accounted for as a transaction with a customer within the scope of Accounting Standards Codification 606 — Revenue from contracts with customers rather than akin to an operating lease under Accounting Standards Codification 842, Leases. Please revise to disclose the terms of the licensing arrangement that you considered and how you concluded that accounting for the arrangement under ASC 606 is appropriate.**

Response: In response to the Staff's comment, the Company has revised the disclosure on page F-73 of Amendment No. 2.

Exhibits and Financial Statement Schedules, page II-2

- 15. We note your response to comment 42 and re-issue in part. For each exhibit that contains confidential information that has been redacted in accordance with Regulation S-K Item 601(b), please include a prominent statement on the first page of each redacted exhibit that certain identified information has been excluded from the exhibit because it is both not material and is the type that you treat as private or confidential.**



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Response: The Company respectfully advises the Staff that it has revised each redacted exhibit to provide the prominent statement on the first page in response to the Staff's comment.

General

16. We note your response to our prior comments 13 and 32. Based on these responses and your current disclosure, it appears to us that a majority of LanzaTech's current commercial operations are located in China. For instance, it appears that the six projects under development in Belgium, the United States, China, Japan, Canada, and India are not material to LanzaTech's current operations. In this regard, we also note your response that the ArcelorMittal steel mill in Ghent, Belgium is currently under construction. We also note the following disclosure on page 75: "While we are headquartered in the United States and our executive team sits in Chicago, Illinois, we have significant business operations in China. This includes a minority ownership stake in a joint venture, several strategic investors located in China, including Sinopec, and a core team of technical, business and administrative professionals at a LanzaTech office in Shanghai, which support the ongoing operations and further growth of the business in China. We license our technology in China, and our low carbon ethanol is currently being produced at three commercial scale facilities operated by our partners using our process technology, which, in addition to its use as fuel, is transported and processed for use in consumer products. Meanwhile, several additional facilities are being engineered and constructed." In light of the above, please either provide a detailed analysis, discussing both quantitative and qualitative factors, supporting your determination that LanzaTech does not have a majority of its current operations in China, or revise your registration statement to address each of the comments from the Division of Corporation Finance's Sample Letter to China-Based Companies issued by the Staff in December 2021. To the extent you do not believe a comment is applicable, please explain why such is the case in your response letter.

Response: The Company respectfully advises the Staff that LanzaTech has determined, through the analysis described below, that it does not have a majority of its current operations in China.

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There are three main components of the LanzaTech business model: Joint Development & Contract Research, Biorefining, and CarbonSmart. As noted above, LanzaTech's licensing model in its Biorefining business focuses on generating licensing, royalty, and services fees from LanzaTech's commercialization efforts, while LanzaTech's partners own and operate the gas fermentation plants. In the Biorefining business unit, where the three commercial-scale projects in China reside, LanzaTech realizes revenues during various development stages of the CCT plants its partners are building as well as during the operational stages of these plants. Through its licensing model, LanzaTech derives a series of one-time revenues as it delivers engineering and development services during the pre-operational phase of a project as well as ongoing recurring revenues associated with royalties and operational services once that plant is producing. Consistent with its licensing model, LanzaTech's partners operate three commercial scale facilities in China. LanzaTech supports its China-based customer's operations through the support and services consistent with its licensing customers. As a result of its other revenue generating activities, across its other lines of business and in other geographies, revenues from operations in China represented less than 5% of LanzaTech's revenue in each of 2020 and 2021. LanzaTech expects that in 2022, its revenue related to operations in China will continue to be less than 5% of LanzaTech's total revenue. LanzaTech's China-based customer is operating the first three commercial scale facilities. However, LanzaTech has a vast project development pipeline outside of China and with non-China-based customers that it intends to execute on, further deploying the technology globally. Ethanol produced from the China-based facilities is procured and used as supply for LanzaTech's CarbonSmart business and utilized in consumer products globally. The main drivers of LanzaTech's revenue reside outside of China and are diversified across the three main components of LanzaTech's business model.

- 17. We note your response to comment 53. Please additionally provide us with the February 19, 2021 engagement letter between Barclays and LanzaTech in which LanzaTech engaged Barclays to act as its financial advisor and capital markets advisor in connection with the possible sale of LanzaTech's business to a SPAC.**

Response: In response to the Staff's comment, the Company has submitted the engagement letter between LanzaTech and Barclays dated February 19, 2021.

- 18. With a view toward disclosure, please tell us whether your sponsor is, is controlled by, has any members who are, or has substantial ties with, a non-U.S. person. Please also tell us whether anyone or any entity associated with or otherwise involved in the transaction, is, is controlled by, or has substantial ties with a non-U.S. person. If so, please revise your filing to include risk factor disclosure that addresses how this fact could impact your ability to complete your initial business combination. For instance, discuss the risk to investors that you may not be able to complete an initial business combination with a target company should the transaction be subject to review by a U.S. government entity, such as the Committee on Foreign Investment in the United States (CFIUS), or ultimately prohibited. Further, disclose that the time necessary for government review of the transaction or a decision to prohibit the transaction could prevent you from completing an initial business combination and require you to liquidate. Disclose the consequences of liquidation to investors, such as the losses of the investment opportunity in a target company, any price appreciation in the combined company, and the warrants, which would expire worthless.**

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Response: The Company advises the Staff that AMCI and LanzaTech have determined that LanzaTech is not a TID U.S. business, as that term is defined in 31 C.F.R. § 800.248. Nevertheless, AMCI's Non-Executive Chairman of the Board, Hans Mende, is a non-U.S. person, and AMCI Group, LLC Series 35, an entity in which Mr. Mende holds voting and investment control, is a member of the Sponsor and a beneficial owner of more than 5% of AMCI's currently outstanding securities (although will not obtain control (as that term is defined in 31 C.F.R. § 800.208) over LanzaTech pursuant to the business combination). AMCI's Chief Financial Officer, Patrick Murphy, is also a non-U.S. person. Additionally, the Sponsor has non-controlling members that may have ties with non-U.S. persons. In response to the Staff's comment, the Company has added a risk factor on pages 108–109 of Amendment No. 2 describing the risk to investors that the initial business combination may be delayed or prohibited since such initial business combination may be subject to regulatory review and approval requirements, including pursuant to foreign investment regulations and review by governmental entities such as CFIUS.

\* \* \*

Please do not hesitate to contact Elliott Smith at (212) 819-7644 of White & Case LLP with any questions or comments regarding this letter.

Sincerely,

/s/ White & Case LLP

White & Case LLP

cc: Nimesh Patel, AMCI Acquisition Corp. II