

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

Schedule 13D
Under the Securities Exchange Act of 1934
(Amendment No. 1)

ARCHAEA ENERGY INC.
(Name of Issuer)

Class A Common Stock, par value \$0.0001 per share
(Title of Class of Securities)

03940F 103
(CUSIP Number)

Matthew Pacey, P.C.
Lanchi Huynh
Kirkland & Ellis LLP
609 Main Street
Houston, Texas 77002
(713) 836-3600

(Name, Address and Telephone Number of Person
Authorized to Receive Notices and Communications)

May 11, 2022
(Date of Event which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §240.13d-1(e), §240.13d-1(f) or §240.13d-1(g), check the following box:

The information required on the remainder of this cover page shall not be deemed to be "filed" for the purpose of Section 18 of the Securities Exchange Act of 1934 ("Act") or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. 03940F 103

1.	Name of reporting person Archaea Energy LLC
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC use only
4.	Source of funds (See Instructions) OO
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or place of organization Delaware
Number of shares beneficially owned by each reporting person with	7. Sole voting power 0
	8. Shared voting power 20,010,231 (1)
	9. Sole dispositive power 0
	10. Shared dispositive power 20,010,231 (1)
11.	Aggregate amount beneficially owned by each reporting person 20,010,231 (1)
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13.	Percent of class represented by amount in Row (11) 19.9% (2)
14.	Type of reporting person OO

- (1) Consists of 20,010,231 shares of Class B Common Stock, par value \$0.0001 per share (“Class B Common Stock”), of Archaea Energy Inc. (the “Issuer”) and 20,010,231 Class A units (“Opco Class A Units”) of LFG Acquisition Holdings LLC (“Opco”). Pursuant to the Second Amended and Restated Limited Liability Company Agreement of Opco (the “Opco LLC Agreement”), at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco’s election, a newly-issued share of Class A Common Stock, par value \$0.0001 per share (“Class A Common Stock”), of the Issuer or a cash payment equal to the Cash Election Amount (as defined therein, which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.
- (2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Quarterly Report on Form 10-Q filed by the Issuer with the Securities and Exchange Commission (the “SEC”) on May 13, 2022 (the “Issuer’s 10-Q”), and (ii) the number of shares of Class A Common Stock set forth in clause (a).

2

CUSIP No. 03940F 103

1.	Name of reporting person Shalennial Fund I, L.P.	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 25,888,541 (1)
	9.	Sole dispositive power 0
	10.	Shared dispositive power 25,888,541 (1)
11.	Aggregate amount beneficially owned by each reporting person 25,888,541 (1)	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 24.4% (2)	
14.	Type of reporting person PN	

- (1) Consists of 25,888,541 shares of Class B Common Stock and 25,888,541 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco’s election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.
- (2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer’s 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a).

3

CUSIP No. 03940F 103

1.	Name of reporting person Shalennial GP I, L.P.	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	

5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 25,888,541 (1)
	9.	Sole dispositive power 0
	10.	Shared dispositive power 25,888,541 (1)
11.	Aggregate amount beneficially owned by each reporting person 25,888,541 (1)	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 24.4% (2)	
14.	Type of reporting person PN	

(1) Consists of 25,888,541 shares of Class B Common Stock and 25,888,541 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

(2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a).

CUSIP No. 03940F 103

1.	Name of reporting person Rice Investment Group, L.P.	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 25,888,541 (1)
	9.	Sole dispositive power 0
	10.	Shared dispositive power 25,888,541 (1)
11.	Aggregate amount beneficially owned by each reporting person 25,888,541 (1)	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 24.4% (2)	
14.	Type of reporting person PN	

(1) Consists of 25,888,541 shares of Class B Common Stock and 25,888,541 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

- (2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a).

5

CUSIP No. 03940F 103

1.	Name of reporting person Rice Investment Group UGP, LLC	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 25,888,541 (1)
	9.	Sole dispositive power 0
	10.	Shared dispositive power 25,888,541 (1)
11.	Aggregate amount beneficially owned by each reporting person 25,888,541 (1)	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 24.4% (2)	
14.	Type of reporting person OO	

- (1) Consists of 25,888,541 shares of Class B Common Stock and 25,888,541 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

- (2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a).

6

CUSIP No. 03940F 103

1.	Name of reporting person Rice Acquisition Sponsor LLC	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization Delaware	
Number of shares	7.	Sole voting power 0
	8.	Shared voting power

beneficially owned by each reporting person with		0
	9.	Sole dispositive power 0
	10.	Shared dispositive power 0
11.	Aggregate amount beneficially owned by each reporting person 0	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 0.0%	
14.	Type of reporting person OO	

7

CUSIP No. 03940F 103

1.	Name of reporting person Daniel J. Rice, IV	
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC use only	
4.	Source of funds (See Instructions) OO	
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or place of organization United States	
Number of shares beneficially owned by each reporting person with	7.	Sole voting power 0
	8.	Shared voting power 25,895,572 (1)
	9.	Sole dispositive power 0
	10.	Shared dispositive power 25,895,572 (1)
11.	Aggregate amount beneficially owned by each reporting person 25,895,572 (1)	
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>	
13.	Percent of class represented by amount in Row (11) 24.4% (2)	
14.	Type of reporting person IN	

(1) Consists of 1,877 shares of Class A Common Stock, 25,893,695 shares of Class B Common Stock and 25,893,695 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

(2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a) that is not currently outstanding.

8

CUSIP No. 03940F 103

1.	Name of reporting person Nicholas Stork	
2.	Check the appropriate box if a member of a group	

	(a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC use only
4.	Source of funds (See Instructions) OO
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or place of organization United States
Number of shares beneficially owned by each reporting person with	7. Sole voting power 0
	8. Shared voting power 4,754,084 (1)
	9. Sole dispositive power 0
	10. Shared dispositive power 4,754,084 (1)
11.	Aggregate amount beneficially owned by each reporting person 4,754,084 (1)
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13.	Percent of class represented by amount in Row (11) 5.6% (2)
14.	Type of reporting person IN

(1) Consists of 50,000 shares of Class A Common Stock, 421,259 shares of Class A Common Stock issuable upon exercise of warrants, 4,282,825 shares of Class B Common Stock and 4,282,825 Opco Class A Units over which the reporting has shared voting and dispositive power. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

(2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming exercise of all warrants beneficially owned by the reporting person and redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a) that is not currently outstanding.

CUSIP No. 03940F 103

1.	Name of reporting person Richard Walton
2.	Check the appropriate box if a member of a group (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC use only
4.	Source of funds (See Instructions) OO
5.	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) <input type="checkbox"/>
6.	Citizenship or place of organization United States
Number of shares beneficially owned by each reporting person with	7. Sole voting power 0
	8. Shared voting power 3,957,802 (1)
	9. Sole dispositive power 0
	10. Shared dispositive power 3,957,802 (1)
11.	Aggregate amount beneficially owned by each reporting person 3,957,802 (1)
12.	Check if the aggregate amount in Row (11) excludes certain shares <input type="checkbox"/>
13.	Percent of class represented by amount in Row (11) 4.7% (2)

14.	Type of reporting person IN
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- (1) Consists of 50,000 shares of Class A Common Stock, 421,259 shares of Class A Common Stock issuable upon exercise of warrants, 3,486,543 shares of Class B Common Stock and 3,486,543 Opco Class A Units. Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.
- (2) Based on the quotient obtained by dividing (a) the number of shares of Class A Common Stock beneficially owned by the reporting person as set forth in Row (11) (assuming exercise of all warrants beneficially owned by the reporting person and redemption of all Opco Class A Units beneficially owned by the reporting person for shares of Class A Common Stock) by (b) the sum of (i) 80,396,431 outstanding shares of Class A Common Stock, as reported in the Issuer's 10-Q, and (ii) the number of shares of Class A Common Stock set forth in clause (a) that is not currently outstanding.

10

This Amendment No. 1 amends and restates the Schedule 13D filed on September 27, 2021 in its entirety. This Amendment No. 1 is referred to herein as this "Schedule 13D."

Item 1. Security and Issuer

This Schedule 13D relates to the Class A Common Stock of Archaea Energy Inc., a Delaware corporation. The principal executive offices of the Issuer are located at 4444 Westheimer Road, Suite G450, Houston, Texas 77027.

The Reporting Persons (as defined below) are party to a Stockholders' Agreement, dated as of September 15, 2021 (the "Stockholders' Agreement"), with the other Archaea Holders (as defined therein), which is included as Exhibit 99.13 hereto and which was filed by the Issuer in the Issuer's Current Report on Form 8-K filed with the SEC on September 21, 2021 (the "Closing 8-K"), is described in Item 6 of this Schedule 13D and contemplates that the Reporting Persons and the other Archaea Holders will vote all voting shares held by such holder in such manner as may be necessary to elect and/or maintain in office as members of the Issuer's board of directors (the "Board") those individuals designated in accordance with certain terms of the Stockholders' Agreement. As a result, the foregoing persons may be deemed to be members of a "group," within the meaning of Section 13(d)(3) of the Act, comprised of the Reporting Persons and the other Archaea Holders. The Reporting Persons expressly disclaim any membership in a group with the other Archaea Holders. The beneficial ownership of the Reporting Persons does not include any Class A Common Stock that may be beneficially owned by any of the other Archaea Holders or their respective affiliates, and the Reporting Persons expressly disclaim beneficial ownership over such securities. The foregoing description of the Stockholders' Agreement does not purport to be complete and is qualified in its entirety by reference to the copy of such agreement included as Exhibit 99.13 to this Schedule 13D, which is incorporated herein by reference.

Item 2. Identity and Background

(a) This Schedule 13D is being filed jointly by: (i) Archaea Energy LLC, a Delaware limited liability company ("Archaea LLC"), (ii) Shalennial Fund I, L.P., a Delaware limited partnership ("Shalennial Fund"), (iii) Shalennial GP I, L.P., a Delaware limited partnership ("Shalennial GP"), (iv) Rice Investment Group, L.P., a Delaware limited partnership ("RIG"), (v) Rice Investment Group UGP, LLC, a Delaware limited liability company ("RIG GP"), (vi) Rice Acquisition Sponsor LLC, a Delaware limited liability company ("Rice Sponsor"), (vii) Daniel J. Rice, IV, a U.S. citizen, (viii) Nicholas Stork, a U.S. citizen, and (ix) Richard Walton, a U.S. citizen (collectively, the "Reporting Persons").

The Reporting Persons have entered into a joint filing agreement, dated as of September 27, 2021, a copy of which is attached hereto as Exhibit 99.1 and incorporated herein by reference.

(b)-(c) The address of the principal office of Archaea LLC and the business address of Messrs. Stork and Walton is 4444 Westheimer Road, Suite G450, Houston, Texas 77027.

The address of the principal office of Shalennial Fund, Shalennial GP, RIG, RIG GP and Rice Sponsor and the business address of Mr. Rice is 102 East Main Street, Second Story, Carnegie, Pennsylvania 15106.

The principal business of Archaea LLC, Shalennial Fund, Shalennial GP, RIG, RIG GP and Rice Sponsor is to either invest in securities or serve as a general partner or management company of an entity that invests in securities. Information regarding the principal occupation or employment of Messrs. Rice, Stork and Walton is included in, or incorporated by reference into, the Issuer's Closing 8-K.

(d) During the last five years, none of the Reporting Persons has been convicted in any criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction as a result of which proceeding it or he was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) All of the natural persons identified in this Item 2 are citizens of the United States of America.

11

Item 3. Source and Amount of Funds

The information set forth or incorporated by reference in Item 6 of this Schedule 13D is incorporated by reference into this Item 3.

Rice Sponsor: In September 2020, prior to the initial public offering (the "IPO") of Rice Acquisition Corp. ("RAC"), which was renamed Archaea Energy Inc. in connection with the consummation of the Business Combinations (as defined below), pursuant to the Amended and Restated Securities Subscription Agreement, dated as of September 10, 2020 and effective as of September 1, 2020 (the "Rice Sponsor Subscription Agreement"), between RAC and Rice Sponsor, Rice Sponsor received 5,750,000 Class B Units ("Class B Units") of Opco for no consideration and purchased 5,750,000 corresponding shares of Class B Common Stock, 2,500 shares of Class A Common Stock and 100 Opco Class A Units and 100 corresponding shares of Class B Common Stock for an aggregate of \$26,000. The foregoing description of the Rice Sponsor Subscription Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.3 hereto, which is incorporated herein by reference. Rice Sponsor obtained the funds to purchase such securities through capital contributions from its members.

In October 2020, Rice Sponsor forfeited 90,000 Opco Class B Units and 30,000 Opco Class B Units of Opco were issued to each of RAC's three independent director nominees, and Rice Sponsor transferred a corresponding number of shares of Class B Common Stock to such independent director nominees. In October 2020, RAC effected a dividend, and Opco effected a distribution, resulting in Rice Sponsor owning 6,091,250 Opco Class B Units and 6,091,250 shares of Class B Common Stock. Upon the closing of the IPO, Rice Sponsor forfeited 309,063 Opco Class B Units, and 309,063 Opco Class B Units were issued to Atlas Point Energy Infrastructure Fund, LLC ("Atlas Point Fund"), and Rice Sponsor transferred a corresponding number of shares of Class B Common Stock to Atlas Point Fund. In December 2020, Rice Sponsor forfeited 250,000 Opco Class B Units of Opco (and corresponding shares of Class B Common Stock) for cancellation by Opco and the Issuer due to the underwriters of the IPO not exercising in full their over-allotment option. In connection with the consummation of the Business Combinations, on September 15, 2021 (the "Closing Date"), the Opco Class B Units held by Rice Sponsor converted into Opco Class A Units on a one-for-one basis.

In October 2020, pursuant to the Private Placement Warrants and Warrants Rights Purchase Agreement, dated as of October 21, 2020 (the "Rice Sponsor Warrant Purchase Agreement"), by and among RAC, Rice Acquisition Holdings LLC and Rice Sponsor, simultaneously with the closing of the IPO, Rice Sponsor purchased 6,093,900 warrants at a purchase price of \$1.00 per warrant. Each such warrant is exercisable to purchase for \$11.50 one share of Class A Common Stock or, in certain circumstances, one Opco Class A Unit, together with a corresponding share of Class B Common Stock. The foregoing description of the Rice Sponsor Warrant Purchase Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.8 hereto, which is incorporated herein by reference. Rice Sponsor obtained the funds to purchase such warrants through capital contributions from its members.

On May 11, 2022, Rice Sponsor made a pro rata distribution of the securities of the Issuer held by Rice Sponsor to all of its members (the "Sponsor Distribution"), including Messrs. Rice, Stork and Walton. As a result of the Sponsor Distribution, Rice Sponsor no longer holds any securities of the Issuer.

Other Reporting Persons: On September 15, 2021, upon the consummation of the Business Combinations, the Reporting Persons (other than Rice Sponsor) acquired (or have been deemed to have acquired) beneficial ownership of shares of Class B Common Stock and Class A Opco Units pursuant to the Archaea Merger Agreement (as defined below and described in Item 6 of this Schedule 13D). Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (as defined therein, which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

On May 11, 2022, pursuant to the Sponsor Distribution, as members of Rice Sponsor, (i) Mr. Rice received 5,154 shares of Class B Common Stock and 5,154 Opco Class A Units, (ii) an entity controlled by Mr. Stork received 261,114 shares of Class B Common Stock, 261,114 Opco Class A Units and 421,259 warrants, and (iii) Mr. Walton received 261,114 shares of Class B Common Stock, 261,114 Opco Class A Units and 421,259 warrants.

Item 4. Purpose of the Transaction

Prior to the IPO, Rice Sponsor acquired the securities reported as previously beneficially owned by it in this Schedule 13D (prior to the Sponsor Distribution) for investment purposes. With respect to the other Reporting Persons, on September 15, 2021, upon the consummation of the Business Combinations, the Reporting Persons (other than Rice Sponsor) acquired (or have been deemed to have acquired) beneficial ownership of shares of Class B Common Stock and Class A Opco Units pursuant to the Archaea Merger Agreement. As disclosed in Item 3 of this Schedule 13D, on May 11, 2022, Rice Sponsor distributed all of its securities of the Issuer to its members, including Messrs. Rice and Walton and an entity controlled by Mr. Stork.

Messrs. Rice and Stork are members of the Board, and Messrs. Stork and Walton are executive officers of the Issuer. Except in their capacities as such, no Reporting Person has any present plan or proposal which relate to or would result in any of the matters set forth in subparagraphs (a) - (j) of Item 4 of Schedule 13D except as set forth herein.

The Reporting Persons reserve the right to change their intention with respect to any and all matters referred to in this Item 4. In particular, the Reporting Persons intend to review their investment in the Issuer on an ongoing basis and reserve the right to increase or decrease their respective positions in the Issuer through, among other things, the purchase or sale of securities of the Issuer on the open market or in private transactions or otherwise, including the exercise of warrants, on such terms and at such times as the Reporting Persons may deem advisable. Depending on various factors, including the Issuer's business, financial position, results, strategic direction or prospects or any strategic alternatives or transactions, actions taken by the Issuer's management or the Board, price levels of one or more of the Issuer's securities, other investment opportunities available to the Reporting Persons, the available capital of the Reporting Persons, conditions in the securities, loan or bond markets, factors relating to COVID-19 and other potential pandemics, general economic or industry conditions or any changes in law or regulations, the Reporting Persons expect that they will seek to dispose, or cause to be disposed (including, without limitation, distributing some or all of the shares of Class A Common Stock (or Opco Class A Units and corresponding shares of Class B Common Stock) to certain of the Reporting Persons' respective members, partners, stockholders and/or beneficiaries, as applicable), some or all of the shares of Class A Common Stock beneficially owned by them, in the public market, in privately negotiated transactions or otherwise, pledging their interest in their shares of Class A Common Stock as a means of obtaining liquidity or as credit support for loans or other extensions of credit, or entering into derivatives transactions and other agreements or instruments that decrease the Reporting Persons' economic exposure with respect to their investment in the Issuer.

The information set forth or incorporated by reference in Item 6 of this Schedule 13D is incorporated by reference into this Item 4. As further described in Item 6 of this Schedule 13D, the Stockholders' Agreement provides for certain rights and obligations of certain of the Reporting Persons relating to the designation of directors to the Board.

Item 5. Interest in Securities of the Issuer

(a)-(b) As of the date of this filing, (i) Archaea LLC is the record holder of 20,010,231 shares of Class B Common Stock and 20,010,231 Class A Opco Units, (ii) Shalennial Fund is the record holder of 5,878,310 shares of Class B Common Stock and 5,878,310 Class A Opco Units, (iii) Rice Sponsor is the record holder of no securities of the Issuer, (iv) Mr. Rice is the record holder of 1,877 shares of Class A Common Stock, 5,154 shares of Class B Common Stock and 5,154 Class A Opco Units, (v) certain entities controlled by Mr. Stork are the record holders of 50,000 shares of Class A Common Stock, 421,259 warrants (each of which is exercisable for one share of Class A Common Stock), 4,282,825 shares of Class B Common Stock and 4,282,825 Class A Opco Units, (vi) Mr. Walton is the record holder of 421,259 warrants (each of which is exercisable for one share of Class A Common Stock), 261,114 shares of Class B Common Stock and 261,114 Class A Opco Units and (v) certain entities controlled by Mr. Walton are the record holders of 50,000 shares of Class A Common Stock, 3,225,429 shares of Class B Common Stock and 3,225,429 Class A Opco Units.

Pursuant to the Opco LLC Agreement, at the request of the holder, each Opco Class A Unit may be redeemed for, at Opco's election, a newly-issued share of Class A Common Stock or a cash payment equal to the Cash Election Amount (as defined therein, which is generally the volume-weighted average closing price of one share of Class A Common Stock for the five consecutive trading days prior to the date on which the holder requested the redemption), and upon redemption of such Opco Class A Unit, a share of Class B Common Stock shall be surrendered by the holder and cancelled by the Issuer.

As a result of the above, as of the date of this filing, (i) Archaea LLC may have been deemed to be the beneficial owner of 20,010,231 shares of Class A Common Stock, which

represented 19.9% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (ii) Shalennial Fund, which controls Archaea LLC, may have been deemed to be the beneficial owner of 25,888,541 shares of Class A Common Stock, which represented 24.4% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (iii) Shalennial GP, which is the general partner of Shalennial Fund, may have been deemed to be the beneficial owner of 25,888,541 shares of Class A Common Stock, which represented 24.4% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (iv) RIG, which is the management company for Shalennial Fund, may have been deemed to be the beneficial owner of 25,888,541 shares of Class A Common Stock, which represented 24.4% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (v) RIG GP, which is the general partner of both Shalennial GP and RIG, may have been deemed to be the beneficial owner of 25,888,541 shares of Class A Common Stock, which represented 24.4% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (vi) Rice Sponsor is the beneficial owner of no securities of the Issuer and has no shared or sole voting or dispositive power over any securities of the Issuer, (vii) Mr. Rice, who is the sole managing member of RIG GP, may have been deemed to be the beneficial owner of 25,895,572 shares of Class A Common Stock, which represented 24.4% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), (viii) Mr. Stork may have been deemed to be the beneficial owner of 4,754,084 shares of Class A Common Stock, which represented 5.6% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock), and (ix) Mr. Walton may have been deemed to be the beneficial owner of 3,957,802 shares of Class A Common Stock, which represented 4.7% of the total number of Class A Common Stock outstanding, and have shared voting and dispositive power over such shares (and sole voting power or sole dispositive power over no shares of Class A Common Stock). The percentage of shares of Class A Common Stock reported to be beneficially owned by the Reporting Persons in this paragraph and elsewhere in this Schedule 13D is based on 80,396,431 shares of Class A Common Stock outstanding as of May 2, 2022, as reported in the Issuer's 10-Q, and is determined in accordance with the rules of the SEC (which assumes the exercise of all warrants and the exchange of all Opco Class A Units held by a Reporting Person into shares of Class A Common Stock for such Reporting Person only).

The information set forth or incorporated by reference in Item 6 of this Schedule 13D is incorporated by reference in this Item 5.

(c) Except in connection with the Business Combinations and as described in Item 3, none of the Reporting Persons has effected any transaction related to the Class A Common Stock during the past 60 days.

(d) Except as otherwise described in this Schedule 13D, no other person has the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, securities covered by this Schedule 13D.

(e) Rice Sponsor ceased to be the beneficial owner of more than five percent of the Class A Common Stock on May 11, 2022 as a result of the Sponsor Distribution. In addition, Mr. Walton has ceased to be the beneficial owner of more than five percent of the Class A Common Stock due to an increase in the number of shares of outstanding Class A Common Stock.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

The information set forth in Items 3 and 4 of this Schedule 13D is hereby incorporated by reference into this Item 6.

Business Combination Agreements

On April 7, 2021, the Issuer (then known as Rice Acquisition Corp.) entered into (i) the Business Combination Agreement (as amended, supplemented or otherwise modified through the Closing Date, the "Aria Merger Agreement") by and among RAC, Rice Acquisition Holdings LLC, a Delaware limited liability company and direct subsidiary of RAC ("RAC Opco"), LFG Intermediate Co, LLC, a Delaware limited liability company and direct subsidiary of RAC Opco ("RAC Intermediate"), LFG Buyer Co, LLC, a Delaware limited liability company and direct subsidiary of RAC Intermediate ("RAC Buyer"), Inigo Merger Sub, LLC, a Delaware limited liability company and direct subsidiary of RAC Buyer ("Aria Merger Sub"), Aria Energy LLC, a Delaware limited liability company ("Aria"), and Aria Renewable Energy Systems LLC, a Delaware limited liability company, pursuant to which, among other things, Aria Merger Sub merged with and into Aria, with Aria surviving the merger and becoming a direct subsidiary of RAC Buyer, on the terms and subject to the conditions set forth therein (the transactions contemplated by the Aria Merger Agreement, the "Aria Merger"), and (ii) the Business Combination Agreement (as amended, supplemented or otherwise modified through the Closing Date, the "Archaea Merger Agreement" and, together with the Aria Merger Agreement, the "Business Combination Agreements"), by and among RAC, RAC Opco, RAC Intermediate, RAC Buyer, Fezzik Merger Sub, LLC, a Delaware limited liability company and direct subsidiary of RAC Buyer ("Archaea Merger Sub"), Archaea LLC and Archaea Energy II LLC, a Delaware limited liability company ("Archaea"), pursuant to which, among other things, Archaea Merger Sub merged with and into Archaea, with Archaea surviving the merger and becoming a direct subsidiary of RAC Buyer, on the terms and subject to the conditions set forth therein (the transactions contemplated by the Archaea Merger Agreement, the "Archaea Merger" and, together with the Aria Merger, the "Business Combinations").

On September 15, 2021 (the Closing Date), the Business Combinations were consummated and RAC was renamed Archaea Energy Inc. Pursuant to the Archaea Merger Agreement, at the effective time of the Business Combinations on the Closing Date (the "Effective Time"), (i) Archaea LLC received 20,010,231 shares of Class B Common Stock and 20,010,231 Opco Class A Units, (ii) Shalennial Fund received 5,878,310 shares of Class B Common Stock and 5,878,310 Opco Class A Units, (iii) certain entities controlled by Mr. Stork received 4,021,711 shares of Class B Common Stock and 4,021,711 Opco Class A Units and (iv) certain entities controlled by Mr. Walton received 3,225,429 shares of Class B Common Stock and 3,225,429 Opco Class A Units.

In connection with the consummation of the Business Combinations, on September 15, 2021, all Opco Class B Units, including those held by Rice Sponsor, converted into Opco Class A Units on a one-for-one basis.

The foregoing description of the Archaea Merger Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.9 and Exhibit 99.10 hereto, which is incorporated herein by reference.

PIPE Financing

On April 7, 2021, in connection with its entry into the Business Combination Agreements, the Issuer entered into subscription agreements (each, a "Subscription Agreement") with certain investors (the "PIPE Investors"), including certain entities controlled by Messrs. Stork and/or Walton, pursuant to which, among other things, the PIPE Investors agreed to subscribe for and purchase, and the Issuer agreed to issue and sell to the PIPE Investors, an aggregate of 30.0 million shares of Class A Common Stock for an aggregate purchase price of \$300.0 million (\$10.00 per share), on the terms and subject to the conditions set forth therein (the "PIPE Financing"). Each Subscription Agreement contains customary representations and warranties of the Issuer, on the one hand, and the PIPE Investor, on the other hand, and customary conditions to closing, including the substantially concurrent consummation of the Business Combinations. Pursuant to the PIPE Financing, an entity controlled by Mr. Stork purchased 50,000 shares of Class A Common Stock for \$500,000 and an entity controlled by Mr. Walton purchased 50,000 shares of Class A Common Stock for \$500,000. The form of the Subscription Agreement is attached hereto as Exhibit 99.11, and the foregoing description of the Subscription Agreements is not complete and is subject to, and qualified in its entirety by, reference to such form.

Additionally, on April 7, 2021, RAC, Opco, Rice Sponsor and Atlas Point Fund entered into an Amendment to Forward Purchase Agreement (the “FPA Amendment”) pursuant to which the Forward Purchase Agreement, dated as of September 30, 2020 (the “Original FPA Agreement” and, together with the FPA Amendment, the “FPA”), by and among such parties was amended to provide that Atlas Point Fund shall purchase a total of \$20.0 million of Forward Purchase Securities (as defined in the Original FPA Agreement) and the Forward Purchase Warrants (as defined in the Original FPA Agreement) will consist of one-eighth of one redeemable warrant (where each whole redeemable warrant is exercisable to purchase one share of Class A Common Stock at an exercise price of \$11.50 per share). Atlas Point Fund satisfied its obligation to purchase the Forward Purchase Securities by participating in the PIPE Financing, and upon consummation of the Business Combinations, Atlas Point Fund received 250,000 warrants (each exercisable for one share of Class A Common Stock at a price of \$11.50). The foregoing description of the FPA is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.4 and Exhibit 99.5 hereto, which is incorporated herein by reference.

Opco LLC Agreement

On the Closing Date, the existing amended and restated limited liability company agreement of Rice Acquisition Holdings LLC was amended and restated in its entirety to become the Second Amended and Restated Limited Liability Company Agreement and Rice Acquisition Holdings LLC was renamed LFG Acquisition Holdings LLC. Among other things, the Opco LLC Agreement contains provisions relating to (i) restrictions on transfers of Opco Class A Units and (ii) the redemption of Opco Class A Units (and the surrender and cancellation of a corresponding number of shares of Class B Common Stock) for Class A Common Stock or, at the Issuer’s option, cash.

Transfer Restrictions

The Opco LLC Agreement contains restrictions on transfers of Opco Class A Units and requires the prior consent of the Issuer, as the managing member of Opco, for such transfers, except, in each case, for (i) certain transfers set forth therein and (ii) transfers to any Permitted Transferee (as defined in the Stockholders’ Agreement). Transfers of the Opco Class A Units held by certain of the Reporting Persons are subject to the lock-up period described below under “Stockholders’ Agreement” and set forth in Section 7 of the Stockholders’ Agreement unless otherwise consented to by the Issuer.

Redemption and Call Rights

Holders of Opco Class A Units (other than the Issuer) have the right (the “Redemption Right”), subject to certain limitations, to exchange Opco Class A Units for (i) shares of Class A Common Stock on a one-for-one basis, subject to adjustment for stock splits, stock dividends, reorganizations, recapitalizations and the like, or (ii) at the Issuer’s option, a corresponding amount of cash. Holders of Opco Class A Units (other than RAC) will generally be permitted to exercise the exchange right on a quarterly basis, subject to certain de minimis allowances. In addition, the Opco LLC Agreement provides that additional exchanges may occur (i) in connection with certain events, including registered offerings, and (ii) with respect to certain block exchanges, provided that, subject to the Issuer’s prior written consent to the contrary, any redeeming holder (a) redeem not less than 500,000 Opco Class A Units or (b) in the event such redeeming holder holds less than 500,000 Opco Class A Units, all of such holders’ Opco Class A Units are redeemed, in each case at any time upon ten business days’ advanced notice. Following any exchange of Opco Class A Units, the Issuer will retain the Opco Class A Units and cancel the same number of shares of the Class B Common Stock.

The Opco LLC Agreement also provides that the Issuer or a member of the PubCo Holdings Group (as defined therein) may elect to purchase directly and acquire any such Opco Class A Units on the redemption date by paying to the redeeming holder that number of shares of Class A Common Stock or cash, whereupon the Issuer or such member of the PubCo Holdings Group shall become the owner of such Opco Class A Units.

The foregoing description of the Opco LLC Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.12 hereto, which is incorporated herein by reference.

Stockholders’ Agreement

On the Closing Date, in connection with the consummation of the Business Combinations, certain of the Reporting Persons (specifically, Archaea Energy, Shalennial Fund, certain entities controlled by Mr. Stork and certain entities controlled by Mr. Walton) entered into the Stockholders’ Agreement with the Issuer, Opco and certain other stockholders and parties thereto.

Pursuant to the terms of the Stockholders’ Agreement, among other things, (i) the Board shall initially consist of seven members, (ii) the holders of a majority of the Company Interests (as defined in the Stockholders’ Agreement) held by the RAC Sponsor Holders (as defined in the Stockholders’ Agreement), which includes Rice Sponsor, will have the right to designate two directors for appointment or election to the Board during the term of the Stockholders’ Agreement, (iii) the Ares Investor (as defined in the Stockholders’ Agreement) will have the right to designate one director for appointment or election to the Board for so long as the Ares Investor holds at least 50% of the Registrable Securities (as defined in the Stockholders’ Agreement) held by it on the Closing Date, (iv) the Board shall take all necessary action to designate the person then serving as the Chief Executive Officer of the Issuer for appointment or election to the Board during the term of the Stockholders’ Agreement and (v) the Board will have the right to designate three independent directors (the “Independent Directors”) for appointment or election to the Board during the term of the Stockholders’ Agreement. Effective immediately after the Effective Time, Mr. Rice was elected to the Board as the designee of certain of the RAC Sponsor Holders, and Mr. Stork (who serves as the Chief Executive Officer of the Issuer) was elected to the Board. Until the Ares Investor no longer holds at least 50% of the Registrable Securities held by it on the Closing Date, the Aria Holders have the right to consult on the persons to be designated as Independent Directors. If neither of the two directors nominated by the RAC Sponsor Holders are reasonably determined to be “independent directors,” the Board shall be permitted in its sole discretion to increase the size of the Board to nine members and to fill the two additional directorships with two additional “independent directors” nominated by the Board. As of March 25, 2022, the Ares Investor no longer holds at least 50% of the Registrable Securities held by it on the Closing Date.

The Stockholders’ Agreement provides that the RAC Sponsor Holders and the Archaea Holders (as defined in the Stockholders’ Agreement and which includes Archaea LLC, Shalennial Fund, the entities controlled by Mr. Stork which received securities pursuant to the Archaea Merger Agreement and the entities controlled by Mr. Walton which received securities pursuant to the Archaea Merger Agreement) will vote all voting shares held by such holder in such manner as may be necessary to elect and/or maintain in office as members of the Board those individuals designated in accordance with the foregoing terms as set forth in Section 3 of the Stockholders’ Agreement. As a result, the foregoing persons may be deemed to be members of a “group,” within the meaning of Section 13(d)(3) of the Act, comprised of the Reporting Persons and the other Archaea Holders. The Reporting Persons expressly disclaim any membership in a group with such persons. The beneficial ownership of the Reporting Persons does not include any Class A Common Stock that may be beneficially owned by any such persons or their respective affiliates, and the Reporting Persons expressly disclaim beneficial ownership over such securities.

Also, the Aria Holders (as defined in the Stockholders’ Agreement) were subject to a 180-day lock-up period on transferring their equity interests in the Issuer and Opco, while the Archaea Holders are subject to a lock-up period (x) ending on the date that is the two-year anniversary of the Closing Date solely with respect to the Company Interests distributed by Archaea LLC after the one-year anniversary of the Closing Date to the Archaea Holders who are members of management of the Issuer as of the Closing or their Affiliates (as defined in the Stockholders’ Agreement) and (y) ending on the date that is the one-year anniversary of the Closing Date with respect to all other Company Interests

issued to the Archaea Holders at the Closing other than those described in the immediately foregoing clause (x). The lock-up restrictions that were applicable to the Aria Holders were subject to early expiration based on the per share trading price of the Class A Common Stock as set forth in the Stockholders' Agreement.

In addition, the Stockholders' Agreement provides for certain customary registration rights, pursuant to which, among other things, the Issuer was required to file with the SEC, and have declared effective, a registration statement for an offering to be made on a continuous basis pursuant to Rule 415 of the Act registering the resale of the Registrable Securities held by the Registration Rights Parties (as defined in the Stockholders' Agreement), and the Registration Rights Parties may request underwritten offerings as well as participate in other offerings conducted by the Issuer for its own account or the account of another person, in each case, on the terms set forth therein.

The foregoing description of the Stockholders' Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.13 hereto, which is incorporated herein by reference.

Registration Rights Agreement with Rice Sponsor

In October 2020, prior to the consummation of the IPO, the Issuer entered into a registration rights agreement with its initial stockholders, including Rice Sponsor, pursuant to which, among other things, the Issuer agreed to file with the SEC, and have declared effective, a registration statement for an offering to be made on a continuous basis pursuant to Rule 415 of the Act registering the resale of the Registrable Securities (as defined therein) held by the Holders (including Rice Sponsor), and the Holders may request underwritten offerings as well as participate in other offerings conducted by the Issuer for its own account or the account of another person, in each case, on the terms set forth therein. The foregoing description of such registration rights agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.7 hereto, which is incorporated herein by reference.

Letter Agreement

Rice Sponsor, Atlas Point Fund and certain of RAC's officers and directors (including Mr. Rice) entered into a letter agreement at the time of the IPO (the "Letter Agreement"), pursuant to which they agreed to vote any shares of capital stock of RAC owned by them in favor of an initial business combination of RAC and to waive their right to have their stock redeemed by RAC. The Letter Agreement also provided that, subject to certain exceptions, such holders' securities of RAC and any shares of Class A Common Stock acquired upon exchange of such securities, may not be transferred, assigned or sold until the earlier of (x) one year after the completion of RAC's initial business combination or earlier if, subsequent to RAC's business combination, the last sale price of the Class A Common Stock equals or exceeds \$12.00 per share (as adjusted for stock splits, stock dividends, reorganizations, recapitalizations and the like) for any 20 trading days within any 30-trading day period commencing at least 150 days after RAC's initial business combination, or (y) the date on which RAC completes a liquidation, merger, capital stock exchange, reorganization or other similar transaction after RAC's initial business combination that results in all of its stockholders having the right to exchange their shares of common stock for cash, securities or other property. The Letter Agreement also provided that the warrants acquired by Rice Sponsor and Atlas Point Fund may not be transferred, assigned or sold until 30 days following the completion of RAC's initial business combination, subject to certain exceptions. The foregoing description of the Letter Agreement is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.6 hereto, which is incorporated herein by reference.

Promissory Note

In September 2020, Rice Sponsor agreed to loan RAC an aggregate of up to \$300,000 pursuant to a promissory note (the "Note"). This loan was non-interest bearing and payable upon the completion of the IPO. RAC borrowed an aggregate of approximately \$290,000 under the Note. The outstanding balance of the Note was paid in full as of November 2020. The foregoing description of the Note is not complete and is qualified in its entirety by reference to the copy thereof filed as Exhibit 99.2 hereto, which is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits.

Exhibit No.	Description
99.1	Joint Filing Agreement, dated as of September 27, 2021, by and among the Reporting Persons (incorporated by reference to Exhibit 99.1 to the Schedule 13D filed September 27, 2021).
99.2	Promissory Note dated September 1, 2020, issued to Rice Acquisition Sponsor LLC by Rice Acquisition Holdings LLC (incorporated by reference to Exhibit 10.1 to the Issuer's Registration Statement on Form S-1, filed with the SEC on October 6, 2020).
99.3	Amended and Restated Securities Subscription Agreement, dated as of September 10, 2020 and effective as of September 1, 2020, between Rice Acquisition Corp. and Rice Acquisition Sponsor LLC (incorporated by reference to Exhibit 10.5 to the Issuer's Registration Statement on Form S-1, filed with the SEC on October 6, 2020).

Exhibit No.	Description
99.4	Forward Purchase Agreement, dated as of September 30, 2020, by and among Rice Acquisition Corp., Rice Acquisition Sponsor LLC, Rice Acquisition Holdings LLC and Atlas Point Energy Infrastructure Fund, LLC (incorporated by reference to Exhibit 10.11 to the Issuer's Registration Statement on Form S-1, filed with the SEC on October 6, 2020).
99.5	Amendment to Forward Purchase Agreement, dated as of April 7, 2021, by and among Rice Acquisition Corp., Rice Acquisition Sponsor LLC, Rice Acquisition Holdings LLC and Atlas Point Energy Infrastructure Fund, LLC (incorporated by reference to Exhibit 10.2 to the Issuer's Current Report on Form 8-K, filed with the SEC on April 8, 2021).
99.6	Letter Agreement, dated as of October 21, 2020, among Rice Acquisition Corp., Rice Acquisition Sponsor LLC, Atlas Point Energy Infrastructure Fund, LLC and the Insiders (as defined therein) (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K, filed with the SEC on October 27, 2020).
99.7	Registration Rights Agreement, dated as of October 21, 2020, by and among Rice Acquisition Corp., Rice Acquisition Sponsor LLC, Atlas Point Energy Infrastructure Fund, LLC and certain other security holders named therein (incorporated by reference to Exhibit 10.3 to the Issuer's Current Report on Form 8-K, filed with the SEC on October 27, 2020).
99.8	Private Placement Warrants and Warrants Rights Purchase Agreement, dated as of October 21, 2020, by and among Rice Acquisition Corp., Rice Acquisition Holdings LLC and Rice Acquisition Sponsor LLC (incorporated by reference to Exhibit 10.5 to the Issuer's Current Report on Form 8-K, filed with the SEC on October 27, 2020).
99.9	Business Combination Agreement, dated as of April 7, 2021, by and among LFG Buyer Co, LLC, Fezzik Merger Sub, LLC, LFG Intermediate Co, LLC, Rice Acquisition Holdings LLC, Archaea Energy LLC, Archaea Energy II LLC and solely for purposes of Section 2.2, Article IV, Article V, Article VI and Article XI, Rice Acquisition Corp. (incorporated by reference to Exhibit 2.2 to the Issuer's Current Report on Form 8-K, filed with the SEC on April 8, 2021).

- 99.10 [Amendment No. 1 to the Business Combination Agreement, dated as of May 12, 2021, to the Business Combination Agreement, dated as of April 7, 2021, by and among LFG Buyer Co, LLC, Fezzik Merger Sub, LLC, LFG Intermediate Co, LLC, Rice Acquisition Holdings LLC, Archaea Energy LLC, Archaea Energy II LLC and solely for purposes of Section 2.2, Article IV, Article V, Article VI and Article XI, Rice Acquisition Corp. \(incorporated by reference to Exhibit 2.6 to the Issuer's Quarterly Report on Form 10-Q, filed with the SEC on August 13, 2021\).](#)
- 99.11 [Form of Subscription Agreement \(incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K, filed with the SEC on April 8, 2021\).](#)
- 99.12 [Second Amended and Restated Limited Liability Company Agreement of LFG Acquisition Holdings LLC, dated as of September 15, 2021 \(incorporated by reference to Exhibit 10.12 to the Issuer's Current Report on Form 8-K, filed with the SEC on September 21, 2021\).](#)
- 99.13 [Stockholders' Agreement, dated as of September 15, 2021, by and among LFG Buyer Co LLC, the stockholders listed on Schedule I thereto, Rice Acquisition Holdings LLC, Rice Acquisition Sponsor LLC and Rice Acquisition Corp. \(incorporated by reference to Exhibit 10.13 to the Issuer's Current Report on Form 8-K, filed with the SEC on September 21, 2021\).](#)

SIGNATURES

After reasonable inquiry and to the best of its knowledge and belief, the undersigned hereby certify that the information set forth in this statement is true, complete and correct.

Date: May 13, 2022

ARCHAEA ENERGY LLC

By: /s/ Chad Bellah
Name: Chad Bellah
Title: Attorney-in-Fact for Richard Walton, President (pursuant to the Power of Attorney, dated September 21, 2021, filed with the Securities and Exchange Commission as Exhibit 24 to Form 3 filed by Archaea Energy LLC on September 27, 2021)

SHALENNIAL FUND I, L.P.

By: Shalennial GP I, L.P.,
its general partner

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV
Name: Daniel J. Rice, IV
Title: Managing Member

SHALENNIAL GP I, L.P.

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV
Name: Daniel J. Rice, IV
Title: Managing Member

RICE INVESTMENT GROUP, L.P.

By: Rice Investment Group UGP, LLC,
its general partner

By: /s/ Daniel J. Rice, IV
Name: Daniel J. Rice, IV
Title: Managing Member

RICE INVESTMENT GROUP UGP, LLC

By: /s/ Daniel J. Rice, IV
Name: Daniel J. Rice, IV
Title: Managing Member

RICE ACQUISITION SPONSOR LLC

By: /s/ Daniel J. Rice, IV
Name: Daniel J. Rice, IV
Title: Chief Executive Officer

DANIEL J. RICE, IV

/s/ Daniel J. Rice, IV

NICHOLAS STORK

By: /s/ Chad Bellah

Name: Chad Bellah

Title: Attorney-in-fact for Nicholas Stork (pursuant to the Power of Attorney, dated September 15, 2021, filed with the Securities and Exchange Commission as Exhibit 24 to Form 3 filed by Mr. Stork on September 17, 2021)

RICHARD WALTON

By: /s/ Chad Bellah

Name: Chad Bellah

Title: Attorney-in-Fact for Richard Walton (pursuant to the Power of Attorney, dated September 15, 2021, filed with the Securities and Exchange Commission as Exhibit 24 to Form 3 filed by Mr. Walton on September 17, 2021)

[Signature Page to Schedule 13D (Amendment No. 1)]
