

INITIAL STATEMENT OF BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person* McCarthy Brian F (Last) (First) (Middle) 4444 WESTHEIMER ROAD,, SUITE G450 (Street) HOUSTON, TX 77027 (City) (State) (Zip)	2. Date of Event Requiring Statement (Month/Day/Year) 03/01/2022	3. Issuer Name and Ticker or Trading Symbol Archaea Energy Inc. [LFG]	
		4. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input type="checkbox"/> Director <input type="checkbox"/> 10% Owner <input checked="" type="checkbox"/> Officer (give title below) <input type="checkbox"/> Other (specify below) Chief Investment Officer	5. If Amendment, Date Original Filed(Month/Day/Year)
6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person			

Table I - Non-Derivative Securities Beneficially Owned

1. Title of Security (Instr. 4)	2. Amount of Securities Beneficially Owned (Instr. 4)	3. Ownership Form: Direct (D) or Indirect (I) (Instr. 5)	4. Nature of Indirect Beneficial Ownership (Instr. 5)
Class A Common Stock	12,000 (1)	D	
Class B Common Stock	530,855 (2)	I	By McCarthy Biogas Holdings LLC (3)

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

SEC 1473 (7-02)

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

Table II - Derivative Securities Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 4)	2. Date Exercisable and Expiration Date (Month/Day/Year)		3. Title and Amount of Securities Underlying Derivative Security (Instr. 4)		4. Conversion or Exercise Price of Derivative Security	5. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 5)	6. Nature of Indirect Beneficial Ownership (Instr. 5)
	Date Exercisable	Expiration Date	Title	Amount or Number of Shares			
Class A Units of LFG Acquisition Holdings LLC	(4)	(4)	Class A Common Stock	530,855 (2)	\$ (4)	I	By McCarthy Biogas Holdings LLC (3)

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
McCarthy Brian F 4444 WESTHEIMER ROAD, SUITE G450 HOUSTON, TX 77027			Chief Investment Officer	

Signatures

/s/ Chad Bellah as Attorney-in-Fact	03/08/2022
<small>**Signature of Reporting Person</small>	<small>Date</small>

Explanation of Responses:

* If the form is filed by more than one reporting person, see Instruction 5(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Award of restricted stock units (3,000 of which will vest on March 15, 2022, 3,000 of which will vest on September 15, 2022 and 6,000 of which will vest on September 15, 2023). Each restricted stock unit represents a contingent right to receive one share of the issuer's Class A common stock.

- On September 15, 2021, as a result of the consummation of the transactions contemplated by that certain Business Combination Agreement, dated April 7, 2021 and subsequently amended on May 12, 2021, by and among the issuer, LFG Acquisition Holdings LLC (f/k/a Rice Acquisition Holdings LLC) ("Opco"), Archaea Energy LLC, Archaea Energy II LLC ("Archaea II") and the other parties thereto, in exchange for the equity interests of Archaea II, which were cancelled, Archaea Energy LLC and its members received Opco Class A units and a corresponding number of shares of the issuer's Class B common stock (which together are exchangeable into shares of the issuer's Class A Common Stock on a one-for-one basis). McCarthy Biogas Holdings LLC, as a member of Archaea Energy LLC, received 530,855 Opco Class A units and a corresponding number of shares of the issuer's Class B common stock.
- (2) McCarthy Biogas Holdings LLC is a limited liability company controlled by Mr. McCarthy. As such, Mr. McCarthy may be deemed to have beneficial ownership of the securities held of record by McCarthy Biogas Holdings LLC. Mr. McCarthy disclaims any beneficial ownership of the reported shares other than to the extent of any pecuniary interest he may have therein, directly or indirectly.
- (3) The Opco Class A units (together with the corresponding shares of the issuer's Class B common stock) are exchangeable into shares of the issuer's Class A common stock on a one-for-one basis and have no expiration date.
- (4)

Remarks:

Exhibit List: Exhibit 24 - Power of Attorney

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *See* Instruction 6 for procedure.

Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number.

POWER OF ATTORNEY

The undersigned hereby constitutes and appoints Chad Bellah, the undersigned's true and lawful attorney-in-fact with full power and authority as hereinafter described to:

1. prepare, execute in the undersigned's name and on the undersigned's behalf, and submit to the U.S. Securities and Exchange Commission (the "SEC") a Form ID, including amendments thereto, and any other documents necessary or appropriate to obtain codes and passwords enabling the undersigned to make electronic filings with the SEC of reports required by Section 16(a) of the Securities Exchange Act of 1934 (the "Exchange Act") or any rule or regulation of the SEC;
2. execute for and on behalf of the undersigned (a) any Form 3, Form 4 and Form 5 (including amendments thereto) in accordance with Section 16(a) of the Exchange Act and the rules thereunder, (b) Form 144, (c) Schedule 13D or Schedule 13G (including amendments thereto) in accordance with Sections 13(d) and 13(g) of the Exchange Act, (d) Form 13F or Form 13H (including amendments thereto) in accordance with Sections 13(f) and 13(h) of the Exchange Act, and (e) any other forms or reports the undersigned may be required to file in connection with the undersigned's ownership, acquisition or disposition of securities, in each case, only to the extent each form or schedule relates to the undersigned's beneficial ownership, acquisition or disposition of securities of a company required to file reports under the Exchange Act with the SEC (a "Reporting Company"), including, without limitation, Archaea Energy Inc. ("LFG");
3. do and perform any and all acts for and on behalf of the undersigned that may be necessary or desirable to prepare, complete and execute any such Form 3, Form 4, Form 5, Form 144, Schedule 13D, Schedule 13G, Form 13F or Form 13H (including any amendments thereto) and timely deliver to and file the forms or schedules with the SEC, any stock exchange or quotation system, self-regulatory association or any other authority and provide a copy as required by law or advisable to such persons as the attorney-in-fact deems appropriate;
4. seek or obtain as the undersigned's representative, and on the undersigned's behalf, information regarding transactions in any Reporting Company's securities (including, without limitation, the securities of LFG) from any third party, including brokers, employee benefit plan administrators and trustees, and the undersigned hereby authorizes any such person to release any such information to such attorney-in-fact and approves and ratifies any such release of information; and
5. take any other action of any type whatsoever in connection with the foregoing that, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

The undersigned hereby grants to such attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that such attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. The undersigned acknowledges that the foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, is not assuming nor relieving any of the undersigned's responsibilities to comply with Section 16 of the Exchange Act. The undersigned acknowledges that the foregoing attorney-in-fact does not assume (i) any liability for the undersigned's responsibility to comply with the requirement of the Exchange Act, (ii) any liability of the undersigned for any failure to comply with such requirements or (iii) any obligation or liability of the undersigned for profit disgorgement under Section 16(b) of the Exchange Act.

This Power of Attorney shall remain in full force and effect indefinitely, until revoked by the undersigned in a signed writing delivered to the foregoing attorney-in-fact. This Power of Attorney does not revoke any previously granted Power of Attorney regarding the subject matter.

[Signature Page Follows]

IN WITNESS WHEREOF, the undersigned has caused this Power of Attorney to be executed as of this 3^d day of March 2022.

/s/ Brian McCarthy

Name: Brian McCarthy

SIGNATURE PAGE TO
POWER OF ATTORNEY (SECTION 16 FORMS)
