

PROSPECTUS SUPPLEMENT NO. 4
(to Prospectus dated June 2, 2023)**VERDE CLEAN FUELS, INC.****UP TO 32,528,461 SHARES OF CLASS A COMMON STOCK**
UP TO 15,412,479 SHARES OF CLASS A COMMON STOCK ISSUABLE
UPON EXERCISE OF WARRANTS
UP TO 2,475,000 WARRANTS TO PURCHASE COMMON STOCK

This prospectus supplement is being filed solely to update the information contained in the table in the “Selling Securityholders” section of the prospectus dated June 2, 2023 (the “Prospectus”) to reflect certain transfers described herein.

The Prospectus and this prospectus supplement relate to the offer and sale from time to time by the selling securityholders named in this prospectus or their permitted transferees (the “**Selling Securityholders**”) of (i) up to 32,528,461 shares of Class A Common Stock consisting of: (a) 3,487,500 shares of Class A Common Stock held directly by CENAQ Sponsor, originally acquired by such parties for an effective purchase price of approximately \$0.0058 per share, (b) 22,500,000 shares of Class A Common Stock issuable upon the conversion of Class C common stock, par value \$0.0001 per share (“**Class C Common Stock**”) issued to Bluescape Clean Fuels Holdings, LLC, a Delaware limited liability company (“**Holdings**”), upon the exchange of Class C common units (“**Class C OpCo Units**”) of Verde Clean Fuels OpCo, LLC, a Delaware limited liability company (“**OpCo**”), and the cancellation of an equal number of shares of Class C Common Stock in connection with such exchange (such shares or Class C Common Stock originally issued as consideration in connection with the Business Combination (as defined below) at a per share value of \$10.00 per share), (c) 3,200,000 shares of Class A Common Stock originally issued and sold to certain of the Selling Securityholders pursuant to subscription agreements dated as of August 12, 2022 (collectively, the “**PIPE Investors**”) at a purchase price of \$10.00 per share, (d) 825,000 shares of Class A Common Stock held directly by Anchor Investors, originally acquired at a purchase price of \$0.0058 per share, (e) 2,475,000 shares of Class A Common Stock underlying the Private Placement Warrants issued under the Business Combination Agreement (defined below) that were originally sold by CENAQ at a purchase price of \$1.00 per Private Placement Warrant in connection with its initial public offering which Warrants are exercisable for our Class A Common Stock at an exercise price of \$11.50 per share, and (f) up to 40,961 shares of Class A Common Stock issuable upon the conversion of the New Promissory Note (as defined herein) at a conversion price of \$10.00 per share; and (ii) up to 2,475,000 Private Placement Warrants, which were originally purchased at a price of \$1.00 per Private Placement Warrant. We will not receive any proceeds from the sale of shares of Class A Common Stock or warrants by the Selling Securityholders pursuant to this prospectus.

The Selling Securityholders may offer and sell the securities covered by the Prospectus in a number of different ways and at varying prices. We provide more information about how the Selling Securityholders may sell the shares in the section entitled “*Plan of Distribution.*”

Our shares of Class A Common Stock are listed on the Nasdaq Capital Market (“**Nasdaq**”) under the symbol “VGAS.” On October 27, 2023, the closing price of our Class A Common Stock was \$3.45 per share. Our public warrants are listed on Nasdaq under the symbol “VGASW.” On October 27, 2023, the closing price of our Public Warrants was \$0.1600 per warrant.

This prospectus supplement updates and supplements the information in the Prospectus and is not complete without, and may not be delivered or utilized except in combination with, the Prospectus, including any amendments or supplements thereto. This prospectus supplement should be read in conjunction with the Prospectus and if there is any inconsistency between the information in the Prospectus and this prospectus supplement, you should rely on the information in this prospectus supplement.

Investing in our Class A Common Stock and Warrants involves risks that are described in the “Risk Factors” section beginning on page 16 of the Prospectus and under similar headings in any further amendments or supplements to the Prospectus.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if the Prospectus or this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus supplement is October 30 2023.

SELLING SECURITYHOLDERS

The following information is provided as of October 30, 2023 to update the “Selling Securityholders” section of the Prospectus to reflect the pro rata distribution by the Sponsor to its members of an aggregate of 2,475,000 Warrants, as reflected in the Selling Securityholder table set forth below.

Where the name of a Selling Securityholder identified in the table below also appears in the table in the Prospectus, the information set forth in the table below regarding that Selling Securityholder supersedes and replaces the information regarding such Selling Securityholder in the Prospectus. Information regarding the Selling Securityholders listed in the table below, including the number of shares of Class A Common Stock and Warrants beneficially owned by them, is based on information provided by such Selling Securityholders as of the date of this prospectus supplement.

Information about the Selling Securityholders, including those listed below, may change over time. Since the effectiveness of the Registration Statement on Form S-1 of which the Prospectus is a part, a number of Selling Securityholders have exercised their warrants and/or sold or otherwise transferred their securities registered thereunder. This prospectus supplement does not provide any updates with respect to any such exercises, sales or transfers, except for those expressly referred to in the immediately preceding paragraph.

Name	Shares of Class A Common Stock ⁽¹⁾				Warrants to Purchase Common Stock			
	Number	Number	Number	Percent	Number	Number	Number	Percent
	Beneficially Owned Prior to Offering	Registered for Sale Hereby	Beneficially Owned After Offering	Owned After Offering	Beneficially Owned Prior to Offering	Registered for Sale Hereby	Beneficially Owned After Offering	Owned After Offering
CENAQ Sponsor, LLC ⁽²⁾	3,275,066	3,275,066	—	—	—	—	—	—
Benjamim Salinas	500,997	500,997	—	—	464,559	464,559	—	—
Typhoon Offshore ⁽³⁾	497,644	497,644	—	—	450,388	450,388	—	—
Sirvent SPAC I Management LLC ⁽⁴⁾	299,300	299,300	—	—	250,407	250,407	—	—
Arb Energy SPAC I ⁽⁵⁾	159,917	159,917	—	—	145,898	145,898	—	—
James Russell Porter	258,255	258,255	—	—	238,405	238,405	—	—
Mike Bahorich	50,882	50,882	—	—	47,202	47,202	—	—
David Bullion	33,486	33,486	—	—	31,064	31,064	—	—
John B. Connally III	196,553	196,553	—	—	181,438	181,438	—	—
KM Devco, LLC ⁽⁶⁾	192,040	192,040	—	—	177,244	177,244	—	—
Can Bust LLC ⁽⁷⁾	296,719	296,719	—	—	275,258	275,258	—	—
Corcel Investments LLC ⁽⁸⁾	67,073	67,073	—	—	62,222	62,222	—	—
Guy Lander	9,890	9,890	—	—	9,175	9,175	—	—
Michael J. Dwinell	111,582	111,582	—	—	103,002	103,002	—	—
Denise Dubard	15,276	15,276	—	—	14,171	14,171	—	—
David Porter	3,565	3,565	—	—	3,307	3,307	—	—
Ondrej Sestak	3,565	3,565	—	—	3,307	3,307	—	—
Sara Martin	3,565	3,565	—	—	3,307	3,307	—	—
Eric Bahorich	3,565	3,565	—	—	3,307	3,307	—	—
Kara Bennett	3,565	3,565	—	—	3,307	3,307	—	—
Emily Boecking	3,565	3,565	—	—	3,307	3,307	—	—
Lecia Alexander	1,698	1,698	—	—	1,575	1,575	—	—
Seminole Resources	1,698	1,698	—	—	1,575	1,575	—	—
James Gunderson	1,698	1,698	—	—	1,575	1,575	—	—

(1) Reflects applicable ownership of Warrants, each of which are exercisable to purchase one share of Class A Common Stock at \$11.50 per share.

(2) Consists of (i) 3,234,375 shares of Class A Common Stock held directly by CENAQ Sponsor (all of which are subject to forfeiture until the occurrence of a Triggering Event) and (ii) 40,691 shares of Class A Common Stock issuable upon the conversion of the New Promissory Note. CENAQ Sponsor is the record holder of such shares. Messrs. John B. Connally III, J. Russell Porter and Michael J. Mayell are each a manager of CENAQ Sponsor, and as such, each has voting and investment

discretion with respect to the shares held directly by CENAQ Sponsor. Messrs. John B. Connally III, J. Russell Porter and Michael J. Mayell each disclaims any beneficial ownership of the reported shares other than the extent of any pecuniary interest he may have therein, directly or indirectly.

- (3) Benjamin Francisco Salinas Sada has voting and investment power over these shares.
 - (4) Humberto Sirvent has voting and investment power over these shares.
 - (5) Humberto Sirvent has voting and investment power over these shares.
 - (6) Karen Mayell and Michael J. Mayell have voting and investment power over these shares.
 - (7) David Wallace has voting and investment power over these shares.
 - (8) Charles Galante has voting and investment power over these shares.
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