UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, DC 20549

FORM 10-Q

(Mark One)

☒ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended June 30, 2022

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from to

Commission File Number: 001-33480

CLEAN ENERGY FUELS CORP.

(Exact name of registrant as specified in its charter)

Delaware	**33-0968580**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

4675 MacArthur Court, Suite 800, Newport Beach, CA 92660

(Address of principal executive offices, including zip code)

(949) 437-1000

(Registrant’s telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common stock, $0.0001 par value per share	CLNE	The Nasdaq Stock Market LLC (Nasdaq Global Select Market)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒	Accelerated filer ☐
Non-accelerated filer ☐	Smaller reporting company ☐
	Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

As of July 28, 2022, there were 222,221,908 shares of the registrant’s common stock, par value $0.0001 per share, issued and outstanding.

CLEAN ENERGY FUELS CORP. AND SUBSIDIARIES

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Unless the context indicates otherwise, all references to "Clean Energy," the "Company," "we," "us," or "our" in this report refer to Clean Energy Fuels Corp. together with its consolidated subsidiaries.

This report contains forward-looking statements. See the cautionary note regarding these statements in Part I, Item 2.-Management's Discussion and Analysis of Financial Condition and Results of Operations of this report.

We own registered or unregistered trademark rights to Clean Energy™. Although we do not use the "®" or "™" symbol in each instance in which one of our trademarks appears in this report, this should not be construed as any indication that we will not assert our rights thereto to the fullest extent under applicable law. Any other service marks, trademarks and trade names appearing in this report are the property of their respective owners.

PART I.—FINANCIAL INFORMATION

Item 1.—Financial Statements (Unaudited)

Clean Energy Fuels Corp. and Subsidiaries

Condensed Consolidated Balance Sheets

(In thousands, except share and per share data; Unaudited)

	December 31, 2021	June 30, 2022
Assets		
Current assets:		
Cash and cash equivalents	$ 99,448	$ 57,495
Short-term investments	129,722	130,018
Accounts receivable, net of allowance of $1,205 and $1,451 as of December 31, 2021 and June 30, 2022, respectively	87,433	83,356
Other receivables	24,447	4,750
Inventory	31,302	34,931
Prepaid expenses and other current assets	37,584	67,501
Total current assets	409,936	378,051
Operating lease right-of-use assets	42,537	42,389
Land, property and equipment, net	261,761	253,583
Restricted cash	7,008	—
Notes receivable and other long-term assets, net	56,189	32,399
Investments in other entities	109,811	157,588
Goodwill	64,328	64,328
Intangible assets, net	5,500	5,915
Total assets	$ 957,070	$ 934,253
Liabilities and Stockholders' Equity		
Current liabilities:		
Current portion of debt	$ 12,845	$ 7,321
Current portion of finance lease obligations	846	865
Current portion of operating lease obligations	3,551	3,712
Accounts payable	24,352	31,753
Accrued liabilities	75,159	69,339
Deferred revenue	7,251	5,926
Derivative liabilities, related party	1,900	7,116
Total current liabilities	125,904	126,032
Long-term portion of debt	23,215	25,089
Long-term portion of finance lease obligations	2,427	2,133
Long-term portion of operating lease obligations	39,431	39,062
Long-term portion of derivative liabilities, related party	2,483	3,918
Other long-term liabilities	8,199	8,513
Total liabilities	201,659	204,747
Commitments and contingencies (Note 17)		
Stockholders' equity:		
Preferred stock, $0.0001 par value. 1,000,000 shares authorized; no shares issued and outstanding	—	—
Common stock, $0.0001 par value. 454,000,000 shares authorized; 222,684,923 shares and 222,177,172 shares issued and outstanding as of December 31, 2021 and June 30, 2022, respectively	22	22
Additional paid-in capital	1,519,918	1,533,118
Accumulated deficit	(771,242)	(808,668)
Accumulated other comprehensive loss	(1,622)	(2,789)
Total Clean Energy Fuels Corp. stockholders' equity	747,076	721,683
Noncontrolling interest in subsidiary	8,335	7,823
Total stockholders' equity	755,411	729,506
Total liabilities and stockholders' equity	$ 957,070	$ 934,253

See accompanying notes to condensed consolidated financial statements.

Clean Energy Fuels Corp. and Subsidiaries

Condensed Consolidated Statements of Operations

(In thousands, except share and per share data; Unaudited)

	Three Months Ended June 30, 2021	Three Months Ended June 30, 2022	Six Months Ended June 30, 2021	Six Months Ended June 30, 2022
Revenue:				
Product revenue	$ (8,965)	$ 85,853	$ 58,727	$ 158,360
Service revenue	9,445	11,371	18,896	22,361
Total revenue	480	97,224	77,623	180,721
Operating expenses:				
Cost of sales (exclusive of depreciation and amortization shown separately below):				
Product cost of sales	41,294	65,933	86,102	123,548
Service cost of sales	5,617	6,127	11,210	12,749
Selling, general and administrative	21,606	26,481	43,047	54,408
Depreciation and amortization	11,381	10,556	23,116	21,946
Total operating expenses	79,898	109,097	163,475	212,651
Operating loss	(79,418)	(11,873)	(85,852)	(31,930)
Interest expense	(1,002)	(732)	(2,438)	(3,809)
Interest income	240	490	494	754
Other income, net	166	14	844	34
Income (loss) from equity method investments	121	(1,193)	(305)	(2,870)
Loss before income taxes	(79,893)	(13,294)	(87,257)	(37,821)
Income tax expense	(56)	(68)	(139)	(117)
Net loss	(79,949)	(13,362)	(87,396)	(37,938)
Loss attributable to noncontrolling interest	282	127	560	512
Net loss attributable to Clean Energy Fuels Corp.	$ (79,667)	$ (13,235)	$ (86,836)	$ (37,426)
Net loss attributable to Clean Energy Fuels Corp. per share:				
Basic and diluted	$ (0.38)	$ (0.06)	$ (0.43)	$ (0.17)
Weighted-average common shares outstanding:				
Basic and diluted	207,047,221	222,433,900	203,043,580	222,496,426

See accompanying notes to condensed consolidated financial statements.

Clean Energy Fuels Corp. and Subsidiaries

Condensed Consolidated Statements of Comprehensive Loss

(In thousands; Unaudited)

	Clean Energy Fuels Corp. Three Months Ended June 30,		Noncontrolling Interest Three Months Ended June 30,		Total Three Months Ended June 30,	
	2021	2022	2021	2022	2021	2022
Net loss	$ (79,667)	$ (13,235)	$ (282)	$ (127)	$ (79,949)	$ (13,362)
Other comprehensive income (loss), net of tax:						
Foreign currency translation adjustments, net of $0 tax in 2021 and 2022	719	(1,297)	—	—	719	(1,297)
Unrealized losses on available-for-sale securities, net of $0 tax in 2021 and 2022	(3)	(119)	—	—	(3)	(119)
Total other comprehensive income (loss)	716	(1,416)	—	—	716	(1,416)
Comprehensive loss	$ (78,951)	$ (14,651)	$ (282)	$ (127)	$ (79,233)	$ (14,778)

	Clean Energy Fuels Corp. Six Months Ended June 30,		Noncontrolling Interest Six Months Ended June 30,		Total Six Months Ended June 30,	
	2021	2022	2021	2022	2021	2022
Net loss	$ (86,836)	$ (37,426)	$ (560)	$ (512)	$ (87,396)	$ (37,938)
Other comprehensive income (loss), net of tax:						
Foreign currency translation adjustments, net of $0 tax in 2021 and 2022	(161)	(1,025)	—	—	(161)	(1,025)
Unrealized losses on available-for-sale securities, net of $0 tax in 2021 and 2022	(3)	(142)	—	—	(3)	(142)
Total other comprehensive loss	(164)	(1,167)	—	—	(164)	(1,167)
Comprehensive loss	$ (87,000)	$ (38,593)	$ (560)	$ (512)	$ (87,560)	$ (39,105)

See accompanying notes to condensed consolidated financial statements.

Clean Energy Fuels Corp. and Subsidiaries

Condensed Consolidated Statements of Stockholders' Equity

(In thousands, except share data; Unaudited)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest in Subsidiary	Total Stockholders' Equity
Balance, December 31, 2020	198,491,204	$ 20	$ 1,191,791	$ (678,096)	$ (209)	$ 9,344	$ 522,850
Issuance of common stock	1,323,814	—	3,216	—	—	—	3,216
Stock-based compensation	—	—	3,367	—	—	—	3,367
Net loss	—	—	—	(7,169)	—	(278)	(7,447)
Other comprehensive loss	—	—	—	—	(880)	—	(880)
Balance, March 31, 2021	199,815,018	20	1,198,374	(685,265)	(1,089)	9,066	521,106
Issuance of common stock, net of issuance costs	23,151,937	2	194,171	—	—	—	194,173
Stock-based compensation	—	—	3,419	—	—	—	3,419
Stock-based sales incentive charges	—	—	115,778	—	—	—	115,778
Net loss	—	—	—	(79,667)	—	(282)	(79,949)
Other comprehensive income	—	—	—	—	716	—	716
Balance, June 30, 2021	222,966,955	$ 22	$ 1,511,742	$ (764,932)	$ (373)	$ 8,784	$ 755,243

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Noncontrolling Interest in Subsidiary	Total Stockholders' Equity
Balance, December 31, 2021	222,684,923	$ 22	$ 1,519,918	$ (771,242)	$ (1,622)	$ 8,335	$ 755,411
Issuance of common stock	585,775	—	273	—	—	—	273
Repurchase of common stock	(511,010)	—	(3,001)	—	—	—	(3,001)
Stock-based compensation	—	—	8,253	—	—	—	8,253
Stock-based sales incentive charges	—	—	1,721	—	—	—	1,721
Net loss	—	—	—	(24,191)	—	(385)	(24,576)
Other comprehensive income	—	—	—	—	249	—	249
Balance, March 31, 2022	222,759,688	22	1,527,164	(795,433)	(1,373)	7,950	738,330
Issuance of common stock	96,728	—	300	—	—	—	300
Repurchase of common stock	(679,244)	—	(3,121)	—	—	—	(3,121)
Stock-based compensation	—	—	6,468	—	—	—	6,468
Stock-based sales incentive charges	—	—	2,307	—	—	—	2,307
Net loss	—	—	—	(13,235)	—	(127)	(13,362)
Other comprehensive income	—	—	—	—	(1,416)	—	(1,416)
Balance, June 30, 2022	222,177,172	$ 22	$ 1,533,118	$ (808,668)	$ (2,789)	$ 7,823	$ 729,506

See accompanying notes to condensed consolidated financial statements.

Clean Energy Fuels Corp. and Subsidiaries

Condensed Consolidated Statements of Cash Flows

(In thousands; Unaudited)

	Six Months Ended June 30, 2021	Six Months Ended June 30, 2022
Cash flows from operating activities:		
Net loss	$ (87,396)	$ (37,938)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Depreciation and amortization	23,116	21,946
Provision for credit losses and inventory	560	1,006
Stock-based compensation expense	6,786	14,721
Stock-based sales incentive charges	78,053	8,533
Change in fair value of derivative instruments	2,507	2,114
Amortization of discount and debt issuance cost	26	(306)
Loss (gain) on disposal of property and equipment	174	(66)
Loss on extinguishment of debt	25	2,268
Loss from equity method investments	305	2,870
Non-cash lease expense	1,470	1,687
Deferred income taxes	61	62
Changes in operating assets and liabilities:		
Accounts and other receivables	2,211	19,024
Inventory	(732)	(4,487)
Prepaid expenses and other assets	(11,722)	(2,002)
Operating lease liabilities	(1,751)	(1,747)
Accounts payable	1,547	6,912
Deferred revenue	388	(1,034)
Accrued liabilities and other	(2,711)	(1,325)
Net cash provided by operating activities	12,917	32,238
Cash flows from investing activities:		
Purchases of short-term investments	(177,981)	(194,353)
Maturities and sales of short-term investments	87,301	194,250
Purchases of and deposits on property and equipment	(7,888)	(17,447)
Disbursements for loans receivable	(3,828)	(516)
Payments on and proceeds from sales of loans receivable	224	218
Cash received from sale of certain assets of subsidiary, net	887	3,885
Investments in other entities	(50,669)	(51,600)
Payment and deposits on equipment and manure rights for RNG production projects	—	(4,915)
Proceeds from disposal of property and equipment	1,577	80
Net cash used in investing activities	(150,377)	(70,398)
Cash flows from financing activities:		
Issuance of common stock	203,923	573
Repurchase of common stock	—	(6,122)
Fees paid for issuance of common stock	(6,534)	—
Fees paid for debt issuance costs	—	(50)
Proceeds for Adopt-a-Port program	4,670	890
Repayment of proceeds for Adopt-a-Port program	—	(525)
Proceeds from debt instruments	4,400	14,000
Proceeds from revolving line of credit	1,150	—
Repayments of borrowing under revolving line of credit	(650)	—
Repayments of debt instruments and finance lease obligations	(48,584)	(17,315)
Payments of debt extinguishment costs	(14)	(2,186)
Net cash provided by (used in) financing activities	158,361	(10,735)
Effect of exchange rates on cash, cash equivalents and restricted cash	167	(66)
Net increase (decrease) in cash, cash equivalents and restricted cash	21,068	(48,961)
Cash, cash equivalents and restricted cash, beginning of period	119,977	106,456
Cash, cash equivalents and restricted cash, end of period	$ 141,045	$ 57,495
Supplemental disclosure of cash flow information:		
Income taxes paid	$ 10	$ 50
Interest paid, net of $0 and $0 capitalized, respectively	$ 2,460	$ 923

See accompanying notes to condensed consolidated financial statements.

Clean Energy Fuels Corp. and Subsidiaries

Notes to Condensed Consolidated Financial Statements

(Unaudited)

Note 1—General

Nature of Business

Clean Energy Fuels Corp., together with its majority and wholly owned subsidiaries (hereinafter collectively referred to as the "Company," unless the context or the use of the term indicates or requires otherwise) is engaged in the business of selling renewable and conventional natural gas as alternative fuels for vehicle fleets and related fueling solutions to its customers, primarily in the United States and Canada. The Company's principal business is supplying renewable natural gas ("RNG") and conventional natural gas, in the form of compressed natural gas ("CNG") and liquefied natural gas ("LNG"), for medium and heavy-duty vehicles and providing operation and maintenance ("O&M") services for public and private vehicle fleet customer stations. The Company is also focused on developing, owning, and operating dairy and other livestock waste RNG projects and supplying RNG (procured from our own projects or from third parties) to its customers in the heavy and medium-duty commercial transportation sector.

As a comprehensive clean energy solution provider, the Company also designs and builds, as well as operates and maintains, public and private vehicle fueling stations in the United States and Canada; sells and services compressors and other equipment used in RNG production and at fueling stations; transports and sells CNG and LNG via "virtual" natural gas pipelines and interconnects; sells U.S. federal, state and local government credits it generates by selling RNG as a vehicle fuel, including Renewable Identification Numbers ("RIN Credits" or "RINs") under the federal Renewable Fuel Standard Phase 2 and credits under the California and the Oregon Low Carbon Fuel Standards (collectively, "LCFS Credits"); and obtains federal, state and local tax credits, grants and incentives.

Basis of Presentation

The accompanying interim unaudited condensed consolidated financial statements include the accounts of the Company and its subsidiaries, and, in the opinion of management, reflect all adjustments, which include only normal recurring adjustments, necessary to state fairly the Company's consolidated financial position as of June 30, 2022, results of operations, comprehensive loss, and stockholders' equity for the three and six months ended June 30, 2021 and 2022, and cash flows for the six months ended June 30, 2021 and 2022. All intercompany accounts and transactions have been eliminated in consolidation. The results of operations for the three and six months ended June 30, 2021 and 2022 are not necessarily indicative of the results to be expected for the year ending December 31, 2022 or for any other interim period or any future year.

Certain information and disclosures normally included in the notes to consolidated financial statements have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission (the "SEC"), but the resultant disclosures contained herein are in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") as they apply to interim reporting. The accompanying condensed consolidated financial statements should be read in conjunction with the consolidated financial statements as of and for the year ended December 31, 2021 that are included in the Company's Annual Report on Form 10-K filed with the SEC on February 24, 2022.

Use of Estimates

The preparation of condensed consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the amounts reported in the accompanying condensed consolidated financial statements and these notes. Actual results could differ from those estimates and may result in material effects on the Company's operating results and financial position. Significant estimates made in preparing the accompanying condensed consolidated financial statements include (but are not limited to) those related to revenue recognition, fair value measurements, goodwill and long-lived asset valuations and impairment assessments, income tax valuations, stock-based compensation expense and stock-based sales incentive charges.

Amazon Warrant

The Amazon Warrant (defined in Note 14) is accounted for as an equity instrument and measured in accordance with Accounting Standards Codification ("ASC") 718, *Compensation – Stock Compensation*. This instrument is classified in the condensed consolidated statements of operations in accordance with ASC 606, *Revenue from Contracts with Customers*, which states that for awards granted to a customer that are not in exchange for distinct goods or services, the fair value of the awards earned based on service or performance conditions is recorded as a reduction of the transaction price. To determine the fair value of the Amazon Warrant in accordance with ASC 718, the Company used the Black-Scholes option pricing model, which is based in part on assumptions that require management to use judgment. Based on the fair value of the award, the Company determines the amount of non-cash stock-based sales incentive charges on the customer's pro-rata achievement of vesting conditions, which is recorded as a reduction of revenue in the condensed consolidated statements of operations. See Note 14 for additional information.

Recently Adopted Accounting Pronouncements

In July 2021, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2021-05, *Leases (Topic 842): Lessors–Certain Leases with Variable Lease Payments*. This ASU requires a lessor to classify leases with variable lease payments that do not depend on an index or rate as operating leases on the commencement date if classification as a sales-type or direct financing lease would result in a day-one loss. The amendment in this update is effective for fiscal years, including interim periods within those years, beginning after December 15, 2021. The Company adopted this accounting update in the first quarter of 2022 on a prospective basis. The adoption of this ASU did not have a material impact on the Company's condensed consolidated financial statements.

Recently Issued Accounting Pronouncements

In November 2021, the FASB issued ASU No. 2021-10, *Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance*, which requires business entities (except for not-for-profit entities and employee benefit plans) to disclose information about certain government assistance they receive. The Topic 832 disclosure requirements include: (i) the nature of the transactions and the related accounting policy used; (ii) the line items on the balance sheet and income statement that are affected and the amounts applicable to each financial statement line item; and (iii) significant terms and conditions of the transactions. The ASU is effective for fiscal years beginning after December 15, 2021, with early adoption permitted. The disclosure requirements are for annual periods only. The Company is currently evaluating the impact of adopting this new ASU.

Note 2—Revenue from Contracts with Customers

Revenue Recognition Overview

The Company recognizes revenue when control of the promised goods or services is transferred to its customers, in an amount that reflects the consideration to which it expects to be entitled in exchange for the goods or services. To achieve that core principle, a five-step approach is applied: (1) identify the contract with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue allocated to each performance obligation when the Company satisfies the performance obligation. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer, and is the unit of account for revenue recognition.

The Company is generally the principal in its customer contracts because it has control over the goods and services prior to their transfer to the customer, and as such, revenue is recognized on a gross basis. Sales and usage-based taxes are excluded from revenue. Revenue is recognized net of allowances for returns and any taxes collected from customers, which are subsequently remitted to governmental authorities. The table below presents the Company's revenue disaggregated by revenue source (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2022	2021	2022
Volume-related (1) (2)	$ (10,829)	$ 91,266	$ 57,297	$ 171,205
Station construction sales	6,071	5,967	10,606	9,294
AFTC (3)	5,238	(9)	9,720	222
Total revenue	$ 480	$ 97,224	$ 77,623	$ 180,721

(1) Includes changes in fair value of derivative instruments related to the Company's commodity swap and customer fueling contracts associated with the Company's *Zero Now* truck financing program. The amounts are classified as revenue because the Company's commodity swap contracts are used to economically offset the risk associated with the diesel-to-natural gas price spread resulting from customer fueling contracts under the Company's *Zero Now* truck financing program. See Note 6 for more information about these derivative instruments. For the three and six months ended June 30, 2021, aggregate changes in the fair value of commodity swaps and customer fueling contracts amounted to a loss of $0.5 million and $2.5 million, respectively. For the three and six months ended June 30, 2022, aggregate changes in the fair value of commodity swaps and customer fueling contracts amounted to a loss of $1.1 million and $2.1 million, respectively.

(2) Includes non-cash stock-based sales incentive contra-revenue charges associated with the Amazon Warrant. For the three and six months ended June 30, 2021, $78.1 million of contra-revenue charges were recognized in volume-related revenue. For the three and six months ended June 30, 2022, contra-revenue charges recognized in volume-related revenue were $4.8 million and $8.5 million, respectively. See Note 14 for more information.

(3) Represents the federal alternative fuel excise tax credit ("AFTC"), which was available for vehicle fuel sales made beginning January 1, 2021 through December 31, 2021. See Note 19 for more information.

Remaining Performance Obligations

Remaining performance obligations represent the transaction price of customer orders for which the work has not been performed. As of June 30, 2022, the aggregate amount of the transaction price allocated to remaining performance obligations was $20.7 million, which related to the Company's station construction sale contracts. The Company expects to recognize revenue on the remaining performance obligations under these contracts over the next 12 to 24 months.

For volume-related revenue, the Company has elected to apply an optional exemption, which waives the requirement to disclose the remaining performance obligation for revenue recognized through the 'right to invoice' practical expedient.

Contract Balances

The timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables (contract assets), and customer advances and deposits (contract liabilities) in the accompanying condensed consolidated balance sheets.

As of December 31, 2021 and June 30, 2022, the Company's contract balances were as follows (in thousands):

	December 31, 2021	June 30, 2022
Accounts receivable, net	$ 87,433	$ 83,356
Contract assets - current	$ 966	$ 2,277
Contract assets - non-current	3,532	3,254
Contract assets - total	$ 4,498	$ 5,531
Contract liabilities - current	$ 5,523	$ 5,613
Contract liabilities - non-current	—	—
Contract liabilities - total	$ 5,523	$ 5,613

Accounts Receivable, Net

"Accounts receivable, net" in the accompanying condensed consolidated balance sheets includes amounts billed and currently due from customers. The amounts due are stated at their net estimated realizable value. The Company maintains an allowance to provide for the estimated amount of receivables that will not be collected. The allowance is based upon an assessment of customer creditworthiness, historical payment experience, the age of outstanding receivables, and economic conditions that may affect a customer's ability to pay.

Contract Assets

Contract assets include unbilled amounts typically resulting from the Company's station construction sale contracts, when the cost-to-cost method of revenue recognition is utilized and revenue recognized exceeds the amount billed to the customer, and right to payment is not just subject to the passage of time. Amounts may not exceed their net realizable value. Contract assets are classified as current or noncurrent based on the timing of billings. The current portion is included in "Prepaid expenses and other current assets" and the noncurrent portion is included in "Notes receivable and other long-term assets, net" in the accompanying condensed consolidated balance sheets.

Contract Liabilities

Contract liabilities consist of billings in excess of revenue recognized from the Company's station construction sale contracts and payments received primarily from customers of NG Advantage, LLC ("NG Advantage") in advance of the performance obligations and are classified as current or noncurrent based on when the related revenue is expected to be recognized. The current portion and noncurrent portion of contract liabilities are included in "Deferred revenue" and "Other long-term liabilities," respectively, in the accompanying condensed consolidated balance sheets.

Revenue recognized during the six months ended June 30, 2021 related to the Company's contract liability balances as of December 31, 2020 was $1.5 million. The increase in the contract liability balances during the six months ended June 30, 2022 is primarily driven by billings in excess of revenue recognized, partially offset by $0.9 million of revenue recognized related to the Company's contract liability balances as of December 31, 2021.

Note 3— Investments in Other Entities and Noncontrolling Interest in a Subsidiary

TotalEnergies Joint Venture

On March 3, 2021, the Company entered an agreement (the "TotalEnergies JV Agreement") with TotalEnergies S.E. ("TotalEnergies") that created a 50/50 joint venture (the "TotalEnergies JV") to develop anaerobic digester gas ("ADG") RNG production facilities in the United States. Each ADG RNG production facility project under the TotalEnergies JV will be formed as a separate limited liability company ("LLC") that is owned 50/50 by the Company and TotalEnergies, and contributions to such LLCs count toward the TotalEnergies JV Equity Obligations (as defined below). The TotalEnergies JV Agreement contemplates that the TotalEnergies JV will invest up to $400.0 million of equity in production projects, and TotalEnergies and the Company each committed to initially provide $50.0 million for the TotalEnergies JV (the "TotalEnergies JV Equity Obligations"). On October 12, 2021, TotalEnergies and the Company executed a LLC agreement (the "DR Development Agreement") for an ADG RNG production facility project (the "DR JV"). Under the DR Development Agreement, TotalEnergies and the Company have each committed to contribute $7.0 million to the DR JV. On November 1, 2021, TotalEnergies and the Company each contributed an initial $4.8 million to the DR JV. The Company accounts for its interest in the LLCs using the equity method of accounting because the Company does not control but has the ability to exercise significant influence over the LLCs' operations. The Company recorded a loss of $0.1 million from the TotalEnergies JV for the three and six months ended June 30, 2022. The Company had an investment balance in the TotalEnergies JV of $4.7 million and $4.6 million as of December 31, 2021 and June 30, 2022, respectively.

bp Joint Venture

On April 13, 2021, the Company entered an agreement (the "bp JV Agreement") with bp Products North America Inc. ("bp") that created a 50/50 joint venture (the "bpJV") to develop, own and operate new ADG RNG production facilities in the United States. Pursuant to the bp JV Agreement, bp and the Company committed to provide $50.0 million and $30.0 million, respectively, with bp and the Company each receiving 30.0 million of Class A Units in the bpJV and bp also receiving 20.0 million of Class B Units in the bpJV. bp's initial $50.0 million contribution was made on April 13, 2021 and consisted of all unpaid principal outstanding under the loan agreement dated December 18, 2020, pursuant to which bp advanced $50.0 million to the Company to fund capital costs and expenses incurred prior to formation of the bpJV, including capital costs and expenses for permitting, engineering, equipment, leases and feed stock rights. 100% of the RNG produced from the projects developed and owned by the bpJV will be provided to the vehicle fuels market pursuant to the Company's marketing agreement with bp.

Pursuant to the bp JV Agreement, the Company had the option, exercisable prior to August 31, 2021 (the "bp Option"), to commit an additional $20.0 million to the bpJV upon which bp's Class B Units would convert into Class A Units. On June 21, 2021, the Company contributed $50.2 million to the bpJV, which consisted of (i) its initial contribution commitment of $30.0 million, (ii) the $20.0 million additional contribution to effect the conversion of bp's Class B Units into Class A Units pursuant to the Company's exercise of the bp Option, and (iii) $0.2 million for interest on bp's Class B Units to acquire additional Class A Units.

In December 2021, the bpJV issued a capital call (the "bpJV Capital Call") for $143.2 million in additional funding, requiring bp and the Company each to contribute $71.6 million. On March 30, 2022, the bpJV issued a second capital call (the "bpJV Capital Call 2") for $76.2 million in additional funding, requiring bp and the Company each to contribute $38.1 million on or prior to September 30, 2022. The Company paid its remaining, outstanding contribution balance of $51.6 million to the bpJV on June 30, 2022, and, as of that date, bp and the Company have each satisfied its contribution commitment in connection with the bpJV Capital Call. As of June 30, 2022, no amounts had been contributed by the Company or bp under the bpJV Capital Call 2, and the Company and bp each own 50% of the bpJV.

The Company accounts for its interest in the bpJV using the equity method of accounting because the Company does not control but has the ability to exercise significant influence over the bpJV's operations. The Company recorded a loss of $0.8 million and $2.0 million from this investment for the three and six months ended June 30, 2022, respectively. The Company had an investment balance in the bpJV of $69.8 million and $119.4 million as of December 31, 2021 and June 30, 2022, respectively.

SAFE&CEC S.r.l.

On November 26, 2017, the Company, through its former subsidiary IMW Industries Ltd. (formerly known as Clean Energy Compression Corp.) (“CEC”), entered into an investment agreement with Landi Renzo S.p.A. (“LR”), an alternative fuels company based in Italy. Pursuant to the investment agreement, the Company and LR agreed to combine their respective natural gas compressor fueling systems manufacturing subsidiaries, CEC and SAFE S.p.A, into a new company, SAFE&CEC S.r.l. (such combination transaction is referred to as the “CEC Combination”). SAFE&CEC S.r.l. is focused on manufacturing, selling and servicing natural gas fueling compressors and related equipment for the global natural gas fueling market. As of the closing of the CEC Combination on December 29, 2017, the Company owned 49% of SAFE&CEC S.r.l., and LR owned 51% of SAFE&CEC S.r.l.

The Company accounts for its interest in SAFE&CEC S.r.l. using the equity method of accounting because the Company does not control but has the ability to exercise significant influence over SAFE&CEC S.r.l.’s operations. The Company recorded a gain of $0.5 million and a loss of $0.1 million from this investment for the three months ended June 30, 2021 and 2022, respectively, and a gain of $0.1 million and a loss of $0.2 million for the six months ended June 30, 2021 and 2022, respectively. The Company had an investment balance in SAFE&CEC S.r.l. of $23.9 million and $22.7 million as of December 31, 2021 and June 30, 2022, respectively.

NG Advantage

On October 14, 2014, the Company entered into a Common Unit Purchase Agreement (“UPA”) with NG Advantage for a 53.3% controlling interest in NG Advantage. Subsequently, the Company’s controlling interest increased in connection with various equity and financing arrangements with NG Advantage. As of June 30, 2022, the Company’s controlling interest in NG Advantage was 93.3%. NG Advantage is engaged in the business of transporting CNG in high-capacity trailers to industrial and institutional energy users, such as hospitals, food processors, manufacturers and paper mills that do not have direct access to natural gas pipelines.

The Company recorded a loss attributable to the noncontrolling interest in NG Advantage of $0.3 million and $0.1 million for the three months ended June 30, 2021 and 2022, respectively, and $0.6 million and $0.5 million for the six months ended June 30, 2021 and 2022, respectively. The value of the noncontrolling interest was $8.3 million and $7.8 million as of December 31, 2021 and June 30, 2022, respectively.

Investments in Equity Securities

For investments in equity securities of privately held entities without readily determinable fair values, the Company measures such investments at cost, adjusted for impairment, if any, and observable price changes in orderly transactions for the identical or similar investment of the same issuer. As of June 30, 2022, the Company had an investment balance recorded at cost of $8.0 million. The Company did not recognize any adjustments to the recorded cost basis during the three and six months ended June 30, 2022.

Note 4—Cash, Cash Equivalents and Restricted Cash

Cash, cash equivalents and restricted cash as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021	June 30, 2022
Current assets:		
Cash and cash equivalents	$ 99,448	$ 57,495
Total cash and cash equivalents	$ 99,448	$ 57,495
Long-term assets:		
Restricted cash - held as collateral	$ 7,008	$ —
Total restricted cash	$ 7,008	$ —
Total cash, cash equivalents and restricted cash	$ 106,456	$ 57,495

The Company considers all highly liquid investments with maturities of three months or less on the date of acquisition to be cash equivalents.

The Company places its cash and cash equivalents with high credit quality financial institutions. At times, such balances may be in excess of the Federal Deposit Insurance Corporation ("FDIC") and Canadian Deposit Insurance Corporation ("CDIC") limits. Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash deposits. The amounts in excess of FDIC and CDIC limits were approximately $98.0 million and $56.0 million as of December 31, 2021 and June 30, 2022, respectively.

The Company classifies restricted cash as short-term and a current asset if the cash is expected to be used in operations within a year or to acquire a current asset. Otherwise, the restricted cash is classified as long-term. In January 2022, in connection with the second amendment to the Berkshire ALA (as defined in Note 12), the lender to NG Advantage released to the Company $7.0 million, classified in "Restricted cash" on the accompanying condensed consolidated balance sheet as of December 31, 2021. The amount represented the collateral deposit for the limited guaranty provided by the Company under the Berkshire ALA. See Note 12 for more information.

Note 5—Short-Term Investments

Short-term investments include available-for-sale debt securities and certificates of deposit. Available-for-sale debt securities are carried at fair value, inclusive of unrealized gains and losses. Unrealized gains and losses on available-for-sale debt securities are recognized in other comprehensive income (loss), net of applicable income taxes. Gains or losses on sales of available-for-sale debt securities are recognized on the specific identification basis.

The Company reviews available-for-sale debt securities for declines in fair value below their cost basis each quarter and whenever events or changes in circumstances indicate that the cost basis of an asset may not be recoverable, and evaluates the current expected credit loss. This evaluation is based on a number of factors, including historical experience, market data, issuer-specific factors, economic conditions, and any changes to the credit rating of the security. As of June 30, 2022, the Company has not recorded a credit loss related to available-for-sale debt securities and believes the carrying values for its available-for-sale debt securities are properly recorded.

Short-term investments as of December 31, 2021 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Gain (Loss)	Estimated Fair Value
Municipal bonds and notes	$ 6,001	$ (1)	$ 6,000
Zero coupon bonds	123,210	(18)	123,192
Certificates of deposit	530	—	530
Total short-term investments	$ 129,741	$ (19)	$ 129,722

Short-term investments as of June 30, 2022 consisted of the following (in thousands):

	Amortized Cost	Gross Unrealized Loss	Estimated Fair Value
Municipal bonds and notes	$ 999	$ —	$ 999
Zero coupon bonds	128,649	(160)	128,489
Certificates of deposit	530	—	530
Total short-term investments	$ 130,178	$ (160)	$ 130,018

Note 6 - Derivative Instruments and Hedging Activities

In October 2018, the Company executed two commodity swap contracts with TotalEnergies Gas & Power North America, an affiliate of TotalEnergies and THUSA (as defined in Note 12), for a total of 5.0 million diesel gallons annually from April 1, 2019 to June 30, 2024. These commodity swap contracts are used to manage diesel price fluctuation risks related to the natural gas fuel supply commitments the Company makes in its fueling agreements with fleet operators that participate in the *Zero Now* truck financing program. These contracts are not designated as accounting hedges and as a result, changes in the fair value of these derivative instruments are recognized in "Product revenue" in the accompanying condensed consolidated statements of operations.

The Company has entered into fueling agreements with fleet operators under the *Zero Now* truck financing program. The fueling agreements contain a pricing feature indexed to diesel, which the Company determined to be embedded derivatives and recorded at fair value at the time of execution, with the changes in fair value of the embedded derivatives recognized in "Product revenue" in the accompanying condensed consolidated statements of operations.

Derivatives and embedded derivatives as of December 31, 2021 consisted of the following (in thousands):

	Gross Amounts Recognized	Gross Amounts Offset	Net Amount Presented
Assets:			
Fueling agreements:			
Prepaid expenses and other current assets	$ 2,038	—	2,038
Notes receivable and other long-term assets, net	4,738	—	4,738
Total derivative assets	$ 6,776	$ —	$ 6,776
Liabilities:			
Commodity swaps:			
Current portion of derivative liabilities, related party	$ 1,900	$ —	$ 1,900
Long-term portion of derivative liabilities, related party	2,483	—	2,483
Total derivative liabilities	$ 4,383	$ —	$ 4,383

Derivatives and embedded derivatives as of June 30, 2022 consisted of the following (in thousands):

	Gross Amounts Recognized	Gross Amounts Offset	Net Amount Presented
Assets:			
Fueling agreements:			
Prepaid expenses and other current assets	$ 4,730	$ —	$ 4,730
Notes receivable and other long-term assets, net	6,615	—	6,615
Total derivative assets	$ 11,345	$ —	$ 11,345
Liabilities:			
Commodity swaps:			
Current portion of derivative liabilities, related party	$ 7,116	$ —	$ 7,116
Long-term portion of derivative liabilities, related party	3,918	—	3,918
Fueling agreements:			
Accrued liabilities	5	—	5
Other long-term liabilities	27	—	27
Total derivative liabilities	$ 11,066	$ —	$ 11,066

As of December 31, 2021 and June 30, 2022, the Company had a total volume on open commodity swap contracts of 11.9 million and 9.4 million diesel gallons, respectively, at a weighted-average price of approximately $3.18 per gallon.

The following table reflects the weighted-average price of open commodity swap contracts as of December 31, 2021 and June 30, 2022, by year with associated volumes:

	December 31, 2021		June 30, 2022	
Year	Volumes (Diesel Gallons)	Weighted-Average Price per Diesel Gallon	Volumes (Diesel Gallons)	Weighted-Average Price per Diesel Gallon
2022	5,000,000	$ 3.18	2,500,000	$ 3.18
2023	5,000,000	$ 3.18	5,000,000	$ 3.18
2024	1,875,000	$ 3.18	1,875,000	$ 3.18

Note 7—Fair Value Measurements

The Company follows the authoritative guidance for fair value measurements with respect to assets and liabilities that are measured at fair value on a recurring basis and non-recurring basis. Under the standard, fair value is defined as the exit price, or the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants, as of the measurement date. The standard also establishes a hierarchy for inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the most observable inputs be used when available. Observable inputs are inputs market participants would use in valuing the asset or liability developed based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company’s assumptions about the factors market participants would use in valuing the asset or liability developed based upon the best information available in the circumstances. The hierarchy consists of the following three levels: Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities; Level 2 inputs include quoted prices for similar assets or liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, and inputs (other than quoted prices) that are observable for the asset or liability, either directly or indirectly; and Level 3 inputs are unobservable inputs for the asset or liability. Categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

The Company’s available-for-sale debt securities and certificates of deposit are classified within Level 2 because they are valued using the most recent quoted prices for identical assets in markets that are not active and quoted prices for similar assets in active markets.

The Company used the income approach to value its outstanding commodity swap contracts and embedded derivatives in its fueling agreements under the *Zero Now* truck financing program (see Note 6). Under the income approach, the Company used a discounted cash flow ("DCF") model in which cash flows anticipated over the term of the contracts are discounted to their present value using an expected discount rate. The discount rate used for cash flows reflects the specific risks in spot and forward rates and credit valuation adjustments. This valuation approach is considered a Level 3 fair value measurement. The significant unobservable inputs used in the fair value measurement of the Company's derivative instruments are Ultra-Low Sulfur Diesel ("ULSD") forward prices and differentials from ULSD to Petroleum Administration for Defense District ("PADD") regions. Significant increases (decreases) in any of those inputs in isolation would result in a significantly lower (higher) fair value measurement. Generally, a change in the ULSD forward prices is accompanied by a directionally opposite but less extreme change in the ULSD-PADD differential.

The Company estimated the fair value of its outstanding commodity swap contracts based on the following inputs as of December 31, 2021 and June 30, 2022:

	December 31, 2021		June 30, 2022	
Significant Unobservable Inputs	**Input Range**	**Weighted Average**	**Input Range**	**Weighted Average**
ULSD Gulf Coast Forward Curve	$2.03 - $2.15	$ 2.11	$ 2.44 - $ 2.84	$ 2.61
Historical Differential to PADD 3 Diesel	$0.87 - $1.58	$ 1.03	$ 0.87 - $ 1.58	$ 1.07
Historical Differential to PADD 5 Diesel	$1.82 - $2.69	$ 2.13	$ 1.91 - $ 2.81	$ 2.21

The Company estimated the fair value of embedded derivatives in its fueling agreements under the *Zero Now* truck financing program based on the following inputs as of December 31, 2021 and June 30, 2022:

	December 31, 2021		June 30, 2022	
Significant Unobservable Inputs	**Input Range**	**Weighted Average**	**Input Range**	**Weighted Average**
ULSD Gulf Coast Forward Curve	$2.03 - $2.15	$ 2.11	$ 2.44 - $ 2.84	$ 2.61
Historical Differential to PADD 3 Diesel	$0.87 - $1.58	$ 1.03	$ 0.87 - $ 1.58	$ 1.07
Historical Differential to PADD 5 Diesel	$1.82 - $2.69	$ 2.13	$ 1.91 - $ 2.81	$ 2.21

There were no transfers of assets or liabilities between Level 1, Level 2, or Level 3 of the fair value hierarchy as of December 31, 2021 or June 30, 2022.

The following tables provide information by level for assets and liabilities that are measured at fair value on a recurring basis as of December 31, 2021 and June 30, 2022 (in thousands):

	December 31, 2021	Level 1	Level 2	Level 3
Assets:				
Available-for-sale securities (1):				
Municipal bonds and notes	$ 6,000	$ —	$ 6,000	$ —
Zero coupon bonds	123,192	—	123,192	—
Certificates of deposit (1)	530	—	530	—
Embedded derivatives (3)	6,776	—	—	6,776
Liabilities:				
Commodity swap contracts (2)	$ 4,383	$ —	$ —	$ 4,383

	June 30, 2022	Level 1	Level 2	Level 3
Assets:				
Available-for-sale securities (1):				
Municipal bonds and notes	$ 999	$ —	$ 999	$ —
Zero coupon bonds	128,489	—	128,489	—
Certificates of deposit (1)	530	—	530	—
Embedded derivatives (3)	11,345	—	—	11,345
Liabilities:				
Commodity swap contracts (2)	$ 11,034	$ —	$ —	$ 11,034
Embedded derivatives (3)	32	—	—	32

(1) Included in "Short-term investments" in the accompanying condensed consolidated balance sheets. See Note 5 for more information.

(2) Included in "Derivative liabilities, related party" and "Long-term portion of derivative liabilities, related party" as of December 31, 2021 and June 30, 2022 in the accompanying condensed consolidated balance sheets. See Note 6 for more information.

(3) Included in "Prepaid expenses and other current assets" and “Notes receivable and other long-term assets, net" as of December 31, 2021, and "Prepaid expenses and other current assets," “Notes receivable and other long-term assets, net," “Accrued liabilities” and “Other long-term liabilities” as of June 30, 2022 in the accompanying condensed consolidated balance sheets. See Note 6 for more information.

The following tables provide a reconciliation of the beginning and ending balances of items measured at fair value on a recurring basis as shown in the tables above that used significant unobservable inputs (Level 3), as well as the change in unrealized gains or losses for the periods included in earnings (in thousands):

	Assets: Commodity Swap Contracts	Assets: Embedded Derivatives	Liabilities: Commodity Swap Contracts	Liabilities: Embedded Derivatives
Balance as of March 31, 2021	$ 1,347	$ 2,521	$ —	$ (30)
Settlements, net	—	—	310	—
Total gain (loss)	(1,347)	2,548	(2,003)	30
Balance as of June 30, 2021	$ —	$ 5,069	$ (1,693)	$ —
Balance as of March 31, 2022	$ —	$ 9,923	$ (8,566)	$ —
Settlements, net	—	—	2,622	—
Total gain (loss)	—	1,422	(5,090)	(32)
Balance as of June 30, 2022	$ —	$ 11,345	$ (11,034)	$ (32)
Change in unrealized gain (loss) for the three months ended June 30, 2021 included in earnings	$ (1,347)	$ 2,548	$ (1,693)	$ 30
Change in unrealized gain (loss) for the three months ended June 30, 2022 included in earnings	$ —	$ 1,422	$ (2,468)	$ (32)

	Assets: Commodity Swap Contracts	Assets: Embedded Derivatives	Liabilities: Commodity Swap Contracts	Liabilities: Embedded Derivatives
Balance as of December 31, 2020	$ 5,648	$ 791	$ —	$ (556)
Settlements, net	(225)	—	349	—
Total gain (loss)	(5,423)	4,278	(2,042)	556
Balance as of June 30, 2021	$ —	$ 5,069	$ (1,693)	$ —
Balance as of December 31, 2021	$ —	$ 6,776	$ (4,383)	$ —
Settlements, net	—	—	3,901	—
Total gain (loss)	—	4,569	(10,552)	(32)
Balance as of June 30, 2022	$ —	$ 11,345	$ (11,034)	$ (32)
Change in unrealized gain (loss) for the six months ended June 30, 2021 included in earnings	$ (5,648)	$ 4,278	$ (1,693)	$ 556
Change in unrealized gain (loss) for the six months ended June 30, 2022 included in earnings	$ —	$ 4,569	$ (6,651)	$ (32)

Other Financial Assets and Liabilities

The carrying amounts of the Company’s cash, cash equivalents, receivables and payables approximate fair value due to the short-term nature of those instruments. The carrying amounts of the Company’s debt instruments approximated their respective fair values as of December 31, 2021 and June 30, 2022. The fair values of these debt instruments were estimated using a discounted cash flow analysis based on interest rates offered on loans with similar terms to borrowers of similar credit quality, which are Level 3 inputs. See Note 12 for more information about the Company’s debt instruments.

Note 8—Other Receivables

Other receivables as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021	June 30, 2022
Loans to customers to finance vehicle purchases	$ 419	$ 502
Accrued customer billings	4,417	855
Fuel tax credits	12,684	690
Other	6,927	2,703
Total other receivables	$ 24,447	$ 4,750

Note 9—Inventory

Inventory consists of raw materials and spare parts, work in process and finished goods and is stated at the lower of cost (first-in, first-out) or net realizable value. The Company evaluates inventory balances for excess quantities and obsolescence by analyzing estimated demand, inventory on hand, sales levels and other information, and reduces inventory balances to net realizable value for excess and obsolete inventory based on this analysis.

Inventory as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021	June 30, 2022
Raw materials and spare parts	$ 31,302	$ 34,931
Total inventory	$ 31,302	$ 34,931

Note 10—Land, Property and Equipment

Land, property and equipment, net as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021	June 30, 2022
Land	$ 3,476	$ 3,476
LNG liquefaction plants	94,633	94,633
Station equipment	354,699	357,315
Trailers	72,783	73,046
Other equipment	93,135	95,362
Construction in progress	74,963	80,656
	693,689	704,488
Less accumulated depreciation	(431,928)	(450,905)
Total land, property and equipment, net	$ 261,761	$ 253,583

Included in "Land, property and equipment, net" are capitalized software costs of $33.8 million and $34.8 million as of December 31, 2021 and June 30, 2022, respectively. Accumulated amortization of the capitalized software costs are $30.4 million and $31.0 million as of December 31, 2021 and June 30, 2022, respectively.

The Company recorded amortization expense related to capitalized software costs of $0.4 million and $0.3 million for the three months ended June 30, 2021 and 2022, respectively, and $0.9 million and $0.6 million for the six months ended June 30, 2021 and 2022, respectively.

As of December 31, 2021 and June 30, 2022, $2.1 million and $2.6 million, respectively, are included in "Accounts payable" and "Accrued liabilities" in the accompanying condensed consolidated balance sheet, representing amounts related to purchases of property and equipment. These amounts are excluded from the accompanying condensed consolidated statements of cash flows as they are non-cash investing activities.

Note 11—Accrued Liabilities

Accrued liabilities as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021	June 30, 2022
Accrued alternative fuels incentives (1)	$ 28,106	$ 21,934
Accrued employee benefits	4,547	4,218
Accrued gas and equipment purchases	17,158	19,060
Accrued interest	893	1,478
Accrued property and other taxes	3,369	4,031
Accrued salaries and wages	8,172	4,463
Embedded derivatives	—	5
Other (2)	12,914	14,150
Total accrued liabilities	$ 75,159	$ 69,339

(1) Includes amount for RINs, LCFS Credits, and AFTC payable to third parties.

(2) No individual item in “Other” exceeds 5% of total current liabilities.

Note 12—Debt

Debt obligations as of December 31, 2021 and June 30, 2022 consisted of the following (in thousands):

	December 31, 2021		
	Principal Balance	Unamortized Debt Financing Costs	Balance, Net of Financing Costs
NG Advantage debt	$ 25,832	$ 72	$ 25,760
SG Facility	9,500	—	9,500
Other debt	800	—	800
Total debt	36,132	72	36,060
Less amounts due within one year	(12,868)	(23)	(12,845)
Total long-term debt	$ 23,264	$ 49	$ 23,215

	June 30, 2022		
	Principal Balance	Unamortized Debt Financing Costs	Balance, Net of Financing Costs
NG Advantage debt	$ 27,414	118	27,296
SG Facility	4,500	—	4,500
Other debt	614	—	614
Total debt	32,528	118	32,410
Less amounts due within one year	(7,357)	(36)	(7,321)
Total long-term debt	$ 25,171	$ 82	$ 25,089

SG Credit Agreement

On January 2, 2019, the Company entered into a term credit agreement (the "Credit Agreement") with Société Générale, a company incorporated as a société anonyme under the laws of France ("SG"). The Credit Agreement provides for a term loan facility (the "SG Facility") pursuant to which the Company may obtain, subject to certain conditions, up to $100.0 million of loans ("SG Loans") in support of its *Zero Now* truck financing program. Under the Credit Agreement, the Company is permitted to use the proceeds from the SG Loans to fund the incremental cost of trucks purchased or financed under the *Zero Now* truck financing program and related fees and expenses incurred by the Company in connection therewith. On March 12, 2021, the Credit Agreement was amended to permit the Company to use up to $45.0 million of proceeds from the SG Loans to fund certain station build costs, and up to $20.0 million to fund TotalEnergies JV Equity Obligations. Under the amended terms of the Credit Agreement, the Company's ability to draw from the SG Facility expired on January 2, 2022. Interest on outstanding SG Loans accrues at a rate equal to LIBOR plus 1.30% per annum, and a commitment fee on any unused portion of the SG Facility accrues at a rate equal to 0.39% per annum. Interest and commitment fees are payable quarterly.

The Company is required to make quarterly principal payments of $2.5 million beginning March 31, 2022 with any unpaid amount due on January 2, 2024, subject to the option to extend the maturity date for three successive terms of one year each. The Company is required to make mandatory prepayments under the SG Facility equal to any amounts the Company receives for complete or partial refunds of the incremental cost of trucks purchased or financed under the *Zero Now* program, and the Company is generally permitted to make complete or partial voluntary prepayments under the SG Facility with prior written notice to SG without premium or penalty. The Credit Agreement includes certain representations, warranties and covenants by the Company and also provides for customary events of default which, if any of them occurs, would permit or require, among other things, the principal of and accrued interest on the SG Loans to become or to be declared due and payable. Events of default under the Credit Agreement include, among others, nonpayment of principal and interest when due; violation of covenants; any default by the Company (whether or not resulting in acceleration) under any other agreement for borrowed money in excess of $20.0 million; voluntary or involuntary bankruptcy; repudiation or assignment of the Guaranty by THUSA (as defined below); or a change of control of the Company.

The Credit Agreement does not include financial covenants, and the Company has not provided SG with any security for its obligations under the Credit Agreement. As described below, THUSA has entered into the Guaranty to guarantee the Company's payment obligations to SG under the Credit Agreement. As of June 30, 2022, the Company had $4.5 million outstanding on the SG Facility, and no events of defaults had occurred.

TotalEnergies Credit Support Agreement

The Company entered into a credit support agreement with TotalEnergies Holdings USA Inc. ("THUSA"), a wholly owned subsidiary of TotalEnergies, on January 2, 2019, which was subsequently amended on March 12, 2021 (as amended, the "CSA") in conjunction with the March 12, 2021 amendment to the Credit Agreement. Under the CSA, THUSA agreed to enter into a guaranty agreement ("Guaranty") pursuant to which it has guaranteed the Company's obligation to repay to SG up to $100.0 million in SG Loans and interest thereon in accordance with the Credit Agreement. In consideration for the commitments of THUSA under the CSA, the Company is required to pay THUSA a quarterly guaranty fee at a rate per quarter equal to 2.5% of the average aggregate SG Loan amount for the preceding calendar quarter.

Following any payment by THUSA to SG under the Guaranty, the Company would be obligated to immediately pay to THUSA the full amount of such payment plus interest on such amount at a rate equal to LIBOR plus 1.0%. In addition, the Company would be obligated to pay and reimburse THUSA for all reasonable out-of-pocket expenses it incurs in the performance of its services under the CSA, including all reasonable out-of-pocket attorneys' fees and expenses incurred in connection with the payment to SG under the Guaranty or any enforcement or attempt to enforce any of the Company's obligations under the CSA. The CSA includes customary representations and warranties and affirmative and negative covenants by the Company. In addition, upon the occurrence of a Trigger Event (as described below) and during its continuation, THUSA may, among other things: elect not to guarantee additional SG Loans; declare all or any portion of the outstanding amounts the Company owes THUSA under the CSA to be due and payable; and exercise all other rights it may have under applicable law. Each of the following events constitutes a Trigger Event: the Company defaults with respect to any payment obligation under the CSA; any representation or warranty made by the Company in the CSA was false, incorrect, incomplete or misleading in any material respect when made; the Company fails to observe or perform any material covenant, obligation, condition or agreement in the CSA; or the Company defaults in the observance or performance of any agreement, term or condition contained in any other agreement with THUSA or an affiliate of THUSA.

As security for the Company's obligations under the CSA, on January 2, 2019, the Company entered into a pledge and security agreement with THUSA and delivered a collateral assignment of contracts to THUSA, pursuant to which the Company collaterally assigned to THUSA all fueling agreements it enters into with participants in the *Zero Now* truck financing program. In addition, on January 2, 2019, the Company entered into a lockbox agreement with THUSA and PlainsCapital Bank, under which the Company granted THUSA a security interest in the cash flow generated by the fueling agreements the Company enters into with participants in the *Zero Now* truck financing program.

Until the occurrence of a Trigger Event or Fundamental Trigger Event (as described below) under the CSA, the Company has the freedom to operate in the normal course, and there are no restrictions on the flow of funds in and out of the lockbox account established pursuant to the lockbox agreement. Upon the occurrence of a Trigger Event under the CSA, all funds in the lockbox account will be: first, used to make scheduled debt repayments under the Credit Agreement; and second, released to the Company. Further, upon the occurrence of a "Fundamental Trigger Event" under the CSA and during its continuation, in addition to exercising any of the remedies available to THUSA upon the occurrence of a Trigger Event as described above: all participants in the *Zero Now* program would pay amounts owed under their fueling agreements with the Company directly into the lockbox account; under a "sweep" mechanism, all cash in the lockbox account would be used to prepay all outstanding SG Loans under the Credit Agreement; no other disbursements from the lockbox account could be made without THUSA's consent; THUSA would retain dominion over the lockbox account; and the funds in the account would remain as security for the Company's payment and reimbursement obligations under the CSA. Each of the following events constitutes a Fundamental Trigger Event: the Company defaults in the observance or performance of any agreement, term or condition contained in the Credit Agreement that would constitute an event of default thereunder, up to or beyond any grace period provided in such agreement, unless waived by SG; the Company defaults in the observance or performance of any agreement, term or condition contained in any evidence of indebtedness other than the Credit Agreement, and the effect of such default is to cause, or permit the holders of such indebtedness to cause, acceleration of indebtedness in an aggregate amount for all such collective defaults of $20.0 million or more; voluntary and involuntary bankruptcy and insolvency events; and the occurrence of a change of control of the Company.

The CSA will terminate following the later of: the payment in full of all of the Company's obligations under the CSA; and the termination or expiration of the Guaranty following the maturity date of the last outstanding SG Loan or December 31, 2023, whichever is earlier.

NG Advantage Debt

On November 30, 2016, NG Advantage entered into a Loan and Security Agreement (the "Wintrust LSA") with Wintrust Commercial Finance ("Wintrust"), pursuant to which Wintrust agreed to lend NG Advantage $4.7 million. The proceeds were primarily used to fund the purchases of CNG trailers and equipment. Interest and principal are payable monthly in 72 equal monthly installments at an annual rate of 5.17%. As collateral security for the prompt payment in full when due of NG Advantage's obligations to Wintrust under the Wintrust LSA, NG Advantage pledged to and granted Wintrust a security interest in all of its right, title and interest in the CNG trailers and equipment purchased with the proceeds received under the Wintrust LSA. As of June 30, 2022, the Company had $0.2 million outstanding under the Wintrust LSA.

On December 10, 2020, NG Advantage entered an Amended and Restated Loan and Security Agreement with Berkshire Bank (the "Berkshire ALA") to substitute and replace the two existing loans with Berkshire Bank dated May 12, 2016 and January 24, 2017 (collectively, the "Original Debt"). The Berkshire ALA provides NG Advantage a 5-year term loan of $14.5 million with payments of principal and interest due monthly beginning February 1, 2021 at an annual interest rate of 5%, maturing on January 1, 2026. NG Advantage used the funds provided by the Berkshire ALA to repay in full the outstanding principal balance plus accrued and unpaid interest of the Original Debt, and to repay the outstanding balances of certain other financing obligations to unrelated lenders. NG Advantage has pledged as collateral certain assets and equipment including trailers under the Berkshire ALA, and the Company provided a limited guaranty of up to $7.0 million classified in "Restricted cash" on the accompanying condensed consolidated balance sheets as of December 31, 2021.

On January 31, 2022, NG Advantage entered into a second amendment to the Berkshire ALA pursuant to which Berkshire Bank agreed to extend additional new term loans with an aggregate principal amount of $14.0 million (collectively, the "Berkshire Term Loan 2") to NG Advantage. The Berkshire Term Loan 2 bears interest at an annual interest rate of 5% and has a maturity date of January 31, 2027. Payments for interest and principal are due monthly beginning March 1, 2022, with a final payment of remaining principal and interest due on the maturity date. Borrowings under the Berkshire Term Loan 2 are collateralized by various trailers and station assets of NG Advantage, and prepayment of the outstanding principal is permitted and subject to prepayment premiums. Financial and non-financial covenants of the Berkshire Term Loan 2 are consistent with those under the Berkshire ALA. As of June 30, 2022, the Company was in compliance with the covenants under the Berkshire ALA. NG Advantage used the proceeds from the Berkshire Term Loan 2 to repay in full the outstanding balances of certain other financing obligations to unrelated lenders. As a result of the full repayment of NG Advantage's financing obligations to unrelated lenders, for the six months ended June 30, 2022, the Company recognized a $2.3 million loss on extinguishment of debt, which is included in "interest expense" in the accompanying condensed consolidated statements of operations. No loss on extinguishment of debt was recognized during the three months ended June 30, 2022.

In connection with the second amendment to the Berkshire ALA, Berkshire Bank released $7.0 million, classified in "Restricted cash" on the accompanying condensed consolidated balance sheets as of December 31, 2021, to the Company related to the Company's limited guaranty under the Berkshire ALA. Concurrently, the Company issued a $7.0 million irrevocable standby letter of credit to Berkshire Bank as collateral under the second amendment to the Berkshire ALA. The standby letter of credit is valid until specified release conditions are satisfied and is collateralized by the Plains LSA (as defined below).

The amended Berkshire ALA also provides NG Advantage a $1.0 million revolving line of credit which bears interest at the greater of the Prime Rate or 3.00%, plus 0.25% and has a maturity date of July 31, 2023. As of June 30, 2022, NG Advantage had no amounts outstanding on the revolving line of credit.

Financing Obligations

NG Advantage has entered into sale and leaseback transactions with various lessors as described below. In each instance, the sale and leaseback transaction does not qualify for sale-leaseback accounting because of NG Advantage's continuing involvement with the buyer-lessor due to a fixed price repurchase option. As a result, the transactions are recorded under the financing method, in which the assets remain on the accompanying condensed consolidated balance sheets and the proceeds from the transactions are recorded as financing liabilities.

On December 18, 2017, NG Advantage entered into a sale-leaseback arrangement through a Master Lease Agreement (the "BoA MLA") with Bank of America Leasing & Capital, LLC ("BoA"). Pursuant to the BoA MLA, NG Advantage received $2.1 million in cash for CNG trailers and simultaneously leased them back from BoA for five years commencing January 1, 2018 with interest and principal payable in 60 equal monthly installments at an annual rate of 4.86%.

On March 1, 2018, NG Advantage entered into a sale-leaseback arrangement through a Master Lease Agreement (the "First National MLA") with First National Capital, LLC ("First National"). Pursuant to the First National MLA, NG Advantage received $6.3 million in cash, net of fees and the first month's lease payment for CNG trailers and simultaneously leased CNG trailers back from First National for six years commencing March 1, 2018 with interest and principal payable in 72 equal monthly installments at an annual rate of 9.28%. On January 31, 2022, NG Advantage used proceeds from the Berkshire Term Loan 2 and $0.8 million in deposits held with First National to repay in full the remaining outstanding financing obligations under the First National MLA. The application of $0.8 million in deposits to extinguish financing obligations under the First National MLA was excluded from the accompanying condensed consolidated statements of cash flows as it was a non-cash financing activity. As of June 30, 2022, no amounts were outstanding under the First National MLA.

On December 20, 2018 (the "Closing Date"), NG Advantage entered into a purchase agreement to sell a compression station for $7.0 million to an entity the member owners of which were noncontrolling interest member owners of NG Advantage. On the Closing Date and immediately following the consummation of the sale of the compression station, NG Advantage entered into a lease agreement with the buyer of the station pursuant to which the station was leased back to NG Advantage for a term of five years with monthly rent payments equal to $0.1 million at an annual rate of 12.0%. On January 31, 2022, NG Advantage used proceeds from the Berkshire Term Loan 2 to repay in full the remaining outstanding financing obligations related to the lease agreement for the compression station. As of June 30, 2022, no amounts were outstanding.

Plains Credit Facility

On May 1, 2021, the Company entered into a Loan and Security Agreement (the "Plains LSA") with PlainsCapital Bank ("Plains"), which provides the Company a $20.0 million revolving line of credit through May 1, 2022. In May 2022, the Plains LSA was renewed and extended through May 1, 2023. The interest rate on amounts outstanding under the Plains LSA is the greater of the Prime Rate or 3.25%. As of June 30, 2022, no amounts were outstanding under the Plains LSA, and the Company was in compliance with the covenants under the Plains LSA.

On September 16, 2021, Plains issued an irrevocable standby letter of credit on behalf of the Company to the Chevron Products Company, a division of Chevron U.S.A. Inc. ("Chevron"), for $2.0 million relating to the Company's Adopt-A-Port program with Chevron. The standby letter of credit is valid until cancelled and is collateralized by the Plains LSA, reducing the amount available under the Plains LSA from $20.0 million to $18.0 million. On January 31, 2022, the Company issued an irrevocable standby letter of credit to Berkshire Bank for $7.0 million as collateral under the second amendment to the Berkshire ALA. The standby letter of credit is collateralized by the Plains LSA, reducing the amount available under the Plains LSA to $11.0 million. As of June 30, 2022, no amounts have been drawn under the standby letters of credit.

Other Debt

The Company has other debt due at various dates through 2024 bearing interest at rates up to 4.75% with a weighted-average interest rate of 4.34% and 4.31% as of December 31, 2021 and June 30, 2022, respectively.

Note 13—Net Income (Loss) Per Share

Basic net income (loss) per share is computed by dividing the net income (loss) attributable to Clean Energy Fuels Corp. by the weighted-average number of common shares outstanding and common shares issuable for little or no cash consideration during the period. Diluted net income (loss) per share is computed by dividing the net income (loss) attributable to Clean Energy Fuels Corp. by the weighted-average number of common shares outstanding and common shares issuable for little or no cash consideration during the period and potentially dilutive securities outstanding during the period, and therefore reflects the dilution from common shares that may be issued upon exercise or conversion of these potentially dilutive securities, such as stock options, warrants, convertible notes and restricted stock units. The dilutive effect of stock awards and warrants is computed under the treasury stock method. The dilutive effect of convertible notes and restricted stock units is computed under the if-converted method. Potentially dilutive securities are excluded from the computations of diluted net income (loss) per share if their effect would be antidilutive.

The following table sets forth the computations of basic and diluted earnings (loss) per share for the three and six months ended June 30, 2021 and 2022 (in thousands except share and per share amounts):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2022	2021	2022
Net loss attributable to Clean Energy Fuels Corp.	$ (79,667)	$ (13,235)	$ (86,836)	$ (37,426)
Weighted-average common shares outstanding	207,047,221	222,433,900	203,043,580	222,496,426
Dilutive effect of potential common shares from restricted stock units, stock options and stock warrants	—	—	—	—
Weighted-average common shares outstanding - diluted	207,047,221	222,433,900	203,043,580	222,496,426
Basic and diluted loss per share	$ (0.38)	$ (0.06)	$ (0.43)	$ (0.17)

The following potentially dilutive securities have been excluded from the diluted net loss per share calculations because their effect would have been antidilutive. Although these securities were antidilutive for these periods, they could be dilutive in future periods.

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2022	2021	2022
Stock options	9,028,347	16,410,764	9,028,347	16,410,764
Restricted stock units	1,241,306	680,191	1,241,306	680,191
Amazon warrant shares	58,767,714	58,767,714	58,767,714	58,767,714
Total	69,037,367	75,858,669	69,037,367	75,858,669

Note 14—Stock-Based Compensation

The following table summarizes the compensation expense and related income tax benefit related to the Company's stock-based compensation arrangements recognized in the accompanying condensed consolidated statements of operations during the three and six months ended June 30, 2021 and 2022 (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2021	2022	2021	2022
Stock-based compensation expense, net of $0 tax in 2021 and 2022	$ 3,419	$ 6,468	$ 6,786	$ 14,721

As of June 30, 2022, there was $36.9 million of total unrecognized compensation costs related to unvested shares subject to outstanding service-based and market-based stock options and service-based restricted stock units. Unrecognized compensation costs associated with these stock-based awards are expected to be expensed over a weighted-average period of approximately 1.7 years. As of June 30, 2022, total unrecognized compensation costs related to unvested shares subject to outstanding performance-based stock options were $4.7 million.

Amazon Warrant

On April 16, 2021, the Company entered into a Project Addendum to Fuel Pricing Agreement (the "Fuel Agreement") with Amazon Logistics, Inc., a subsidiary of Amazon.com, Inc. ("Amazon"), and a Transaction Agreement with Amazon (the "Transaction Agreement"), pursuant to which, among other things, the Company issued to Amazon.com NV Investment Holdings LLC, a subsidiary of Amazon ("Amazon Holdings"), a warrant to purchase up to an aggregate of 53,141,755 shares (the "Warrant Shares") of the Company's common stock at an exercise price of $13.49 per share. As a result of the issuance of additional shares of common stock under the Company's at-the-market offering programs in 2021 and in accordance with the terms of the warrant, on June 14, 2021, the number of shares of the Company's common stock that may be purchased pursuant to the warrant, at an exercise price of $13.49 per share, increased by an aggregate of 5,625,959 shares (the "Additional Warrant Shares").

The Warrant Shares and the Additional Warrant Shares shall vest in multiple tranches, certain of which vested immediately upon execution of the Fuel Agreement. Subsequent tranches will vest over time based on fuel purchases by Amazon and its affiliates, up to a total of $500.0 million, excluding any payments attributable to "Pass Through Costs," which consist of all costs associated with the delivered cost of gas and applicable taxes determined by reference to the selling price of gallons or gas sold. The right to exercise the warrants and to receive the Warrant Shares and Additional Warrant Shares (the "Amazon Warrant") that have vested expires on April 16, 2031.

Non-cash stock-based sales incentive contra-revenue charges ("Amazon Warrant Charges") associated with the Amazon Warrant are recognized as Amazon and its affiliates purchase fuel and vesting conditions become probable of being achieved, based on the grant date fair value of the Amazon Warrant.

The following table summarizes the Amazon Warrant activity for the six months ended June 30, 2022:

	Warrant Shares
Outstanding and unvested as of December 31, 2021	44,077,779
Granted	—
Vested	(587,704)
Outstanding and unvested as of June 30, 2022	43,490,075

587,704 shares of the Amazon Warrant vested on March 26, 2022 based on fuel purchases made by Amazon and its affiliates. The Company recognized Amazon Warrant Charges of $78.1 million and $4.8 million during the three months ended June 30, 2021 and 2022, respectively, and $78.1 million and $8.5 million during the six months ended June 30, 2021 and 2022, respectively. Amazon Warrant Charges recognized during the three and six months ended June 30, 2021 included $76.6 million from the immediate vesting of a portion of the Amazon Warrant and $1.5 million from customer fuel purchases. Amazon Warrant Charges for the three and six months ended June 30, 2022 were related to customer fuel purchases. As of June 30, 2022, the Company had a customer incentive asset of $30.0 million classified in "Prepaid expenses and other current assets" in the accompanying condensed consolidated balance sheets.

Note 15—Stockholders' Equity

Authorized Shares

On June 14, 2021, the Company's stockholders approved an increase in the number of shares of common stock the Company is authorized to issue from 304,000,000 to 454,000,000. As of June 30, 2022, the Company is authorized to issue 455,000,000 shares, of which 454,000,000 shares of capital stock are designated common stock and 1,000,000 shares are designated preferred stock.

Share Repurchase Program

On March 12, 2020, the Company's Board of Directors approved a share repurchase program of up to $30.0 million (exclusive of fees and commissions) of the Company's outstanding common stock (the "Repurchase Program"). On December 7, 2021, the Company's Board of Directors approved an increase in the aggregate purchase amount under the Repurchase Program from $30.0 million to $50.0 million (exclusive of fees and commissions). The Repurchase Program does not have an expiration date, and it may be suspended or discontinued at any time. For the six months ended June 30, 2022, the Company repurchased 1,190,254 shares of its common stock under the Repurchase Program for a total cost of $6.1 million (exclusive of fees and commissions). As of June 30, 2022, the Company had utilized a total of $23.5 million under the Repurchase Program from its inception to repurchase 9,387,340 shares of common stock and had a total of $26.5 million of authorized funds remaining under the Repurchase Program. The Repurchase Program does not obligate the Company to acquire any specific number of shares. Repurchases under the Repurchase Program may be effected from time to time through open market purchases, privately negotiated transactions, structured or derivative transactions, including accelerated share repurchase transactions, or other methods of acquiring shares, in each case subject to market conditions, applicable securities laws and other relevant factors. Repurchases may also be made under plans complying with Rule 10b5-1 under the Securities Exchange Act of 1934, as amended.

Note 16—Income Taxes

The provision for income taxes for interim periods is determined using an estimate of the Company's annual effective tax rate, adjusted for discrete items, if any, that are taken into account in the relevant period. Each quarter, the Company updates the estimate of the annual effective tax rate, and if the estimated tax rate changes, a cumulative adjustment is recorded.

The Company's income tax expense was $0.1 million for each of the three months ended June 30, 2021 and 2022, and $0.1 million for each of the six months ended June 30, 2021 and 2022. Tax expense for all periods consists of taxes due on the Company's U.S. and foreign operations. The effective tax rates for the three and six months ended June 30, 2021 and 2022 are different from the federal statutory tax rate primarily due to losses for which no tax benefit has been recognized.

The Company increased its unrecognized tax benefits in the six months ended June 30, 2022 by $1.4 million. This increase is primarily attributable to the deductions attributed to the unvested Amazon Warrant. The net interest incurred was immaterial for the three and six months ended June 30, 2021 and 2022.

Note 17—Commitments and Contingencies

Environmental Matters

The Company is subject to federal, state, local and foreign environmental laws and regulations. The Company does not anticipate any expenditures to comply with such laws and regulations that would have a material effect on the

Company's consolidated financial position, results of operations or liquidity. The Company believes that its operations comply, in all material respects, with applicable federal, state, local and foreign environmental laws and regulations.

Litigation, Claims and Contingencies

The Company may become party to various legal actions that arise in the ordinary course of its business. The Company is also subject to audit by tax and other authorities for varying periods in various federal, state, local and foreign jurisdictions, and disputes may arise during the course of these audits. It is impossible to determine the ultimate liabilities that the Company may incur resulting from any of these lawsuits, claims, proceedings, audits, commitments, contingencies and related matters or the timing of these liabilities, if any. If these matters were to ultimately be resolved unfavorably, it is possible that such an outcome could have a material adverse effect upon the Company's consolidated financial position, results of operations, or liquidity. The Company does not, however, anticipate such an outcome and believes the ultimate resolution of these matters will not have a material adverse effect on the Company's consolidated financial position, results of operations, or liquidity.

bpJV Capital Call Contribution

In December 2021, the bpJV issued the bpJV Capital Call in the amount of $143.2 million, which required bp and the Company each to contribute $71.6 million. Proceeds from the bpJV Capital Call will be used to fund working capital needs and to fund RNG production facility projects undertaken by the bpJV. As of June 30, 2022, the Company had paid its remaining, outstanding contribution balance of $51.6 million to the bpJV. On March 30, 2022, the bpJV issued the bpJV Capital Call 2 for $76.2 million to support bpJV's RNG project development and working capital needs. The bpJV Capital Call 2 requires that bp and the Company each contribute $38.1 million on or prior to September 30, 2022. As of June 30, 2022, no capital contribution under the bpJV Capital Call 2 had been paid by the Company or bp.

Note 18—Leases

Lessor Accounting

The Company leases fueling station equipment to customers pursuant to agreements that contain an option to extend and an end-of-term purchase option. Receivables from these leases are accounted for as finance leases, specifically sales-type leases, and are included in "Other receivables" and "Notes receivable and other long-term assets, net" in the accompanying condensed consolidated balance sheets.

The Company recognizes the net investment in the lease as the sum of the lease receivable and the unguaranteed residual value, both of which are measured at the present value using the interest rate implicit in the lease.

During each of the three months ended June 30, 2021 and 2022, the Company recognized $0.1 million in "Interest income" on its lease receivables. During each of the six months ended June 30, 2021 and 2022, the Company recognized $0.2 million in "Interest income" on its lease receivables.

The following schedule represents the Company's maturities of lease receivables as of June 30, 2022 (in thousands):

Fiscal year:		
Remainder of 2022	$	481
2023		962
2024		962
2025		962
2026		1,034
Thereafter		2,324
Total minimum lease payments		6,725
Less amount representing interest		(1,686)
Present value of lease receivables	$	5,039

Note 19—Alternative Fuel Excise Tax Credit

Under separate pieces of U.S. federal legislation, the Company has been eligible to receive AFTC for its natural gas vehicle fuel sales made between October 1, 2006 and December 31, 2021. The AFTC was equal to $0.50 per gasoline gallon equivalent of CNG that the Company sold as vehicle fuel, and $0.50 per diesel gallon of LNG that the Company sold as vehicle fuel in 2020 and 2021. AFTC is currently unavailable for vehicle fuel sales made after December 31, 2021.

Based on the service relationship with its customers, either the Company or its customers claim the credit. The Company records its AFTC, if any, as revenue in its condensed consolidated statements of operations because the credits are fully payable to the Company and do not offset income tax liabilities. As such, the credits are not deemed income tax credits under the accounting guidance applicable to income taxes.

Note 20—Related Party Transactions

TotalEnergies S.E.

During the three and six months ended June 30, 2021, the Company recognized revenue of $0.9 million and $1.6 million, respectively, related to RINs and LNG sold to TotalEnergies and its affiliates in the ordinary course of business and from settlements on commodity swap contracts (Note 6). During the three and six months ended June 30, 2022, the Company recognized revenue of $1.5 million and $2.9 million, respectively, related to equipment lease revenue and LNG sold to TotalEnergies and its affiliates in the ordinary course of business. As of December 31, 2021 and June 30, 2022, the Company had receivables from TotalEnergies of $1.4 million and $1.5 million, respectively.

During the three and six months ended June 30, 2021, the Company paid TotalEnergies $0.5 million and $1.0 million, respectively, for expenses incurred in the ordinary course of business, settlements on commodity swap contracts (Note 6), and the guaranty fee under the CSA (Note 12). During the three and six months ended June 30, 2022, the Company paid TotalEnergies $2.8 million and $3.6 million, respectively, for expenses incurred in the ordinary course of business, settlements on commodity swap contracts, and the guaranty fee under the CSA. As of December 31, 2021, the amount due to TotalEnergies was $0.1 million. As of June 30, 2022, total payables due to TotalEnergies were immaterial.

SAFE&CEC S.r.l.

During the three and six months ended June 30, 2021, the Company received $0.0 million and $0.2 million, respectively, from SAFE&CEC S.r.l. in the ordinary course of business. During the three and six months ended June 30, 2022, the Company received $0.1 million and $0.1 million, respectively, from SAFE&CEC S.r.l. in the ordinary course of business. The receivables balance as of December 31, 2021 was immaterial. As of June 30, 2022, the Company had receivables from SAFE&CEC S.r.l. of $0.1 million.

During the three and six months ended June 30, 2021, the Company paid SAFE&CEC S.r.l. $1.7 million and $2.5 million, respectively, for parts and equipment in the ordinary course of business. During the three and six months ended

June 30, 2022, the Company paid SAFE&CEC S.r.l. $1.6 million and $5.7 million, respectively, for parts and equipment in the ordinary course of business. As of December 31, 2021 and June 30, 2022, the Company had payables to SAFE&CEC S.r.l. of $0.2 million and $0.4 million, respectively.

TotalEnergies JV and bpJV

Pursuant to LLC agreements under the TotalEnergies JV and the bpJV, the Company manages the day-to-day operations of RNG projects under the joint ventures in exchange for management fees. During the three and six months ended June 30, 2022, the Company recognized management fee revenue of $0.3 million and $0.6 million, respectively, related to the TotalEnergies JV and the bpJV. No management fee revenue was recognized during the three and six months ended June 30, 2021. As of December 31, 2021 and June 30, 2022, the Company had receivables from the two joint ventures of $0.4 million and $0.3 million, respectively.

Note 21—Subsequent Events

On July 7, 2022, the Company entered into an amendment to the Liquefied Natural Gas Fueling Station and LNG Master Sales Agreement between Pilot Travel Centers LLC (“Pilot”) and Clean Energy, dated August 2, 2010, to decommission and remove certain fueling stations located on Pilot’s premises in accordance with a phased removal schedule. The removal of the fueling stations is anticipated to commence in the third quarter of 2022 and is expected to be completed by the end of the first quarter of 2023. Total costs related to the removal of the fueling stations are estimated to be approximately $8.7 million, consisting of asset retirement obligation charges and accelerated depreciation expense related to changes in depreciable life of the affected station assets.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis of Financial Condition and Results of Operations (this discussion, as well as discussions under the same heading in our other periodic reports, are referred to as the "MD&A") should be read together with our unaudited condensed consolidated financial statements and the related notes included in this report, and all cross references to notes included in this MD&A refer to the identified note in such condensed consolidated financial statements. For additional context with which to understand our financial condition and results of operations, refer to the MD&A included in our Annual Report on Form 10-K for our fiscal year ended December 31, 2021, which was filed with the Securities and Exchange Commission ("SEC") on February 24, 2022, as well as the audited consolidated financial statements and notes included therein (collectively, our "2021 Form 10-K").

Cautionary Note Regarding Forward-Looking Statements

This MD&A and the other disclosures in this report contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act")*, and Section 21E of the Securities Exchange Act of 1934, as amended* (the "Exchange Act")*. Forward-looking statements are statements other than historical facts. These statements relate to future events or circumstances or our future performance, and they are based on our current assumptions, expectations and beliefs concerning future developments and their potential effect on our business. In some cases, you can identify forward-looking statements by the following words: "if," "may," "might," "shall," "will," "can," "could," "would," "should," "expect," "intend," "plan," "goal," "objective," "initiative," "anticipate," "believe," "estimate," "predict," "project," "forecast," "potential," "continue," "ongoing" or the negative of these terms or other comparable terminology, although the absence of these words does not mean that a statement is not forward-looking. The forward-looking statements we make in this discussion include statements about, among other things, our future financial and operating performance, our growth strategies, including expectations regarding our delivery and sales of RNG and Environmental Credits (each as defined below), and anticipated trends in our industry and our business.*

The preceding list is not intended to be an exhaustive list of all topics addressed by our forward-looking statements. Although the forward-looking statements we make reflect our good faith judgment based on available information, they are only predictions. Accordingly, our forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our or our industry's actual results, levels of activity, performance or achievements to be materially different from any future results, levels of activity, performance or achievements expressed or implied by these forward-looking statements. Factors that might cause or contribute to such differences include, among others, those discussed under "Risk Factors" in Part II, Item 1A of this report, as such factors may be amended, supplemented or superseded from time to time by other reports we file with the SEC. In addition, we operate in a competitive and rapidly evolving industry in which new risks emerge from time to time, and it is not possible for us to predict all of the risks we may face. Nor can we assess the effect of all factors on our business or the extent to which any factor or combination of factors could cause actual results to differ from our expectations. As a result of these and other potential risks and uncertainties, our forward-looking statements should not be relied on or viewed as guarantees of future events.

All of our forward-looking statements in this report are made only as of the date of this document and, except as required by law, we undertake no obligation to update publicly any forward-looking statements for any reason, including to conform these statements to actual results or to changes in our expectations. You should, however, review the factors and risks we describe in the reports we will file from time to time with the SEC for the most recent information about our forward-looking statements and the risks and uncertainties related to these statements. We qualify all of our forward-looking statements by this cautionary note.

Overview

We are North America's leading provider of the cleanest fuel for the transportation market, based on the number of stations operated and the amount of gasoline gallon equivalents ("GGEs") of renewable natural gas ("RNG") and conventional natural gas delivered. Through our sales of RNG, which is derived from biogenic methane produced by the breakdown of organic waste, we help thousands of vehicles, from airport shuttles to city buses to waste and heavy-duty trucks, reduce their amount of climate-harming greenhouse gas from 60% to over 400% based on determinations by the

California Air Resources Board ("CARB"), depending on the source of the RNG, while also reducing criteria pollutants such as Nitrogen Oxides, or NOx. RNG is delivered as compressed natural gas ("CNG") and liquefied natural gas ("LNG").

As a clean energy solutions provider, we supply RNG and conventional natural gas, in the form of CNG and LNG, for medium and heavy-duty vehicles; design and build, as well as operate and maintain ("O&M"), public and private fueling stations in the United States and Canada; develop and own dairy ADG RNG production facilities; sell and service compressors and other equipment used in RNG production and at fueling stations; transport and sell RNG and conventional natural gas via "virtual" natural gas pipelines and interconnects; sell U.S. federal, state and local government credits (collectively, "Environmental Credits") we generate by selling RNG as a vehicle fuel, including Renewable Identification Numbers ("RIN Credits" or "RINs") under the federal Renewable Fuel Standard Phase 2 and credits under the California and the Oregon Low Carbon Fuel Standards (collectively, "LCFS Credits"); and obtain federal, state and local tax credits, grants and incentives.

At present, we see the best use of RNG as a replacement for fossil-based fuel in the transportation sector. We believe the most attractive market for RNG is U.S. heavy-duty Class 8 trucking; based on information from the American Trucking Association and our own internal estimates, we believe there are 3.9 million Class 8 heavy-duty trucks operating in the U.S. that use over 40 billion gallons of diesel per year. We deliver RNG to the transportation market through 558 fueling stations we own, operate or supply in 42 states and the District of Columbia in the U.S., including over 200 stations in California. We also own, operate, or supply 26 fueling stations in Canada.

Critically, to generate the valuable Environmental Credits, RNG must be placed in vehicle fuel tanks. We believe our stations and customer relationships allow us to deliver substantially more RNG to vehicle operators than any other participant in the market – we calculate that we have access to more fueling stations and vehicle fleets than all our competitors combined. As of June 30, 2022, we served over 1,000 fleet customers operating over 50,000 vehicles on our fuels.

Longer term, we plan to expand availability of hydrogen fuel for vehicle fleets. As operators deploy more hydrogen powered vehicles, we can modify our fueling stations to reform our RNG and deliver clean hydrogen to customers. We also believe our RNG can be used to generate clean electricity to power electric vehicles, and we have the capability to add electric vehicle charging at our station sites, although the cost of adding electric vehicle charging capacity may be significant.

Impact of COVID-19

The COVID-19 pandemic has had an adverse effect on the volume of our sales, which we saw bottom in the second quarter of 2020. We have since seen improvement in volumes, with volumes delivered for the second quarter of 2022 5% higher compared to the second quarter of 2021, 19% higher compared to the second quarter of 2020, and 7% higher compared to the second quarter of 2019. We continue to see significant improvement in our volumes delivered in the public transit customer markets and airports (fleet services), which increased by 8% and 24%, respectively, during the three months ended June 30, 2022, compared to the prior year period. The increase in volumes delivered in the second quarter of 2022 compared to that in the second quarter of 2021 was primarily due to COVID-19 restrictions being lifted and an increase in travel generally. For more information, see "Risk Factors" in Part II, Item 1A of this report.

We believe we have sufficient liquidity to support business operations through this volatile period, including total cash and cash equivalents and short-term investments of $187.5 million as of June 30, 2022 and $8.2 million of current debt. We have collected a significant portion of receivables relating to alternative fuel excise tax credits ("AFTC") generated from fuel sales during 2021 in the first half of 2022. We also believe AFTC will be reinstated during 2022 based on our historical experience and apply retroactively to vehicle fuel sales made beginning January 1, 2022, and we anticipate AFTC revenue to be approximately $21.2 million for 2022 after giving consideration to the effect of COVID-19 described above. However, there can be no assurance that AFTC will be reinstated for any portion of 2022, if at all. If AFTC is not extended after 2021, then our anticipated revenue from AFTC would be materially adversely affected. See Part II, Item 1A. "Risk Factors" of this report.

Inflation, Labor Shortage, Material Availability and Interest Rate

During the six months ended June 30, 2022, we have experienced increases in commodity and supply chain costs due to inflationary pressures. Additionally, effects stemming from the COVID-19 pandemic have caused disruptions in labor supply and in supply chain, leading to shortages of certain materials and equipment and higher labor costs. The future duration and extent of these pressures and effects are difficult to predict. Although we have partially offset these increased costs through price increases for our products and services, our efforts to manage the current inflationary pressure and to recover inflation-based cost increases from our customers may be hampered by the structure of our contracts as well as the competitive and economic conditions of the markets in which we serve. For more information, see “Risk Factors” in Part II, Item 1A of this report.

The majority of our debt outstanding represents long-term loans bearing fixed rates of interest. Changes in market interest rates do not affect the interest expense incurred from these outstanding long-term debt instruments. However, changes in market interest rates may affect the interest rate and corresponding interest expense on any new issuance of short-term and long-term debt securities. In addition, our SG Loans bear a variable rate of interest. As a result, changes in short-term interest rates will increase or decrease interest expense in future periods. See “Quantitative and Qualitative Disclosures about Market Risk” in Part I, Item 3 of this report for more information.

Performance Overview

This performance overview discusses matters on which our management focuses in evaluating our financial condition and our operating results.

Sources of Revenue

The following tables represent our sources of revenue:

	Three Months Ended June 30,		Six Months Ended June 30,	
Revenue (in millions)	**2021**	**2022**	**2021**	**2022**
Volume-related [1] [2]	$ (10.8)	$ 91.2	$ 57.3	$ 171.2
Station construction sales	6.1	6.0	10.6	9.3
AFTC [3]	5.2	—	9.7	0.2
Total	$ 0.5	$ 97.2	$ 77.6	$ 180.7

(1) Our volume-related revenue primarily consists of sales of RNG and conventional natural gas, in the form of CNG and LNG, performance of O&M services, and sales of RINs and LCFS Credits in addition to changes in fair value of our derivative instruments. More information about our volume of fuel and O&M services delivered in the periods is included below under “Key Operating Data,” and more information about our derivative instruments, which consist of commodity swap and customer fueling contracts, is included in Note 6. Additionally, a discussion of volume-related revenue is included below under “Results of Operations.” The following table summarizes our volume-related revenue in the periods:

	Three Months Ended June 30,		Six Months Ended June 30,	
Revenue (in millions)	**2021**	**2022**	**2021**	**2022**
Fuel sales and performance of O&M services [2]	$ (21.8)	$ 78.4	$ 38.8	$ 148.1
Change in fair value of derivative instruments [4]	(0.5)	(1.1)	(2.5)	(2.1)
RIN Credits	8.2	9.8	13.8	17.7
LCFS Credits	3.3	4.1	7.2	7.5
Total volume-related revenue	$ (10.8)	$ 91.2	$ 57.3	$ 171.2

(2) Includes $78.1 million of non-cash stock-based sales incentive contra-revenue charges related to the Amazon Warrant (as defined in Note 14) for the three and six months ended June 30, 2021. Includes $4.8 million and $8.5 million of non-cash stock-based sales incentive contra-revenue charges related to the Amazon Warrant for the three and six months ended June 30, 2022, respectively.

(3) Represents the federal alternative fuel excise tax credit that we refer to as AFTC. AFTC was available for vehicle fuel sales made through December 31, 2021. AFTC may not be reinstated for vehicle fuel sales made after December 31, 2021.

(4) The change in fair value of derivative instruments is related to the Company's commodity swap and customer fueling contracts. The amounts are classified as revenue because the Company's commodity swap contracts are used to economically offset the risk associated with the diesel-to-natural gas price spread resulting from customer fueling contracts under the Company's *Zero Now* truck financing program.

Key Operating Data

In evaluating our operating performance, we focus primarily on: (1) the amount of RNG, CNG and LNG GGEs delivered (which we define as (i) the volume of GGEs we sell to our customers as fuel, plus (ii) the volume of GGEs dispensed at facilities we do not own but where we provide O&M services on a per-gallon or fixed fee basis, plus (iii) our proportionate share of the GGEs sold as CNG by our joint venture with Mansfield Ventures, LLC and Mansfield Clean Energy Partners, LLC ("MCEP")), (2) our station construction cost of sales, (3) our gross margin (which we define as revenue minus cost of sales), and (4) net income (loss) attributable to us. The following tables present our key operating data for the years ended December 31, 2019, 2020 and 2021 and for the three and six months ended June 30, 2021 and 2022:

	Year Ended December 31,			Three Months Ended June 30,		Six Months Ended June 30,	
GGEs delivered (in millions)	**2019**	**2020**	**2021**	**2021**	**2022**	**2021**	**2022**
CNG (1)	335.7	321.0	347.4	88.5	92.5	167.1	174.9
LNG	65.1	61.5	55.2	12.9	14.4	26.7	27.8
Total	400.8	382.5	402.6	101.4	106.9	193.8	202.7

RNG sold as vehicle fuel is included in the CNG or LNG amounts in the table above as applicable based on the form in which it was sold. GGEs of RNG sold as vehicle fuel for the years ended December 31, 2019, 2020 and 2021 and for the three and six months ended June 30, 2021 and 2022, were as follows:

	Year Ended December 31,			Three Months Ended June 30,		Six Months Ended June 30,	
GGEs of RNG delivered (in millions)	**2019**	**2020**	**2021**	**2021**	**2022**	**2021**	**2022**
CNG	112.5	124.4	146.0	35.8	43.1	65.9	77.7
LNG	30.8	28.9	21.0	7.1	6.9	14.0	12.0
Total	143.3	153.3	167.0	42.9	50.0	79.9	89.7

	Year Ended December 31,			Three Months Ended June 30,		Six Months Ended June 30,	
GGEs delivered (in millions)	**2019**	**2020**	**2021**	**2021**	**2022**	**2021**	**2022**
O&M services	158.5	138.5	148.4	38.1	39.0	73.2	74.7
Fuel (1)	162.4	157.6	164.1	40.3	44.5	77.8	83.0
Fuel and O&M services (2)	79.9	86.4	90.1	23.0	23.4	42.8	45.0
Total	400.8	382.5	402.6	101.4	106.9	193.8	202.7

RNG sold as vehicle fuel is included in the table above as applicable based on the services provided. GGEs of RNG sold as vehicle fuel for the years ended December 31, 2019, 2020 and 2021 and for the three and six months ended June 30, 2021 and 2022, were as follows:

	Year Ended December 31,			Three Months Ended June 30,		Six Months Ended June 30,	
GGEs of RNG delivered (in millions)	**2019**	**2020**	**2021**	**2021**	**2022**	**2021**	**2022**
Fuel	87.3	86.2	88.0	23.6	30.6	42.8	52.2
Fuel and O&M services (2)	56.0	67.1	79.0	19.3	19.4	37.1	37.5
Total	143.3	153.3	167.0	42.9	50.0	79.9	89.7

Other operating data (in millions)	Year Ended December 31, 2019	2020	2021	Three Months Ended June 30, 2021	2022	Six Months Ended June 30, 2021	2022
Station construction cost of sales	$ 23.5	$ 24.0	$ 15.0	$ 5.5	$ 5.1	$ 9.5	$ 8.2
Gross margin (3) (4) (5)	$ 132.0	$ 106.3	$ 40.0	$ (46.4)	$ 25.2	$ (19.7)	$ 44.4
Net income (loss) attributable to Clean Energy Fuels Corp. (3) (5)	$ 20.4	$ (9.9)	$ (93.1)	$ (79.7)	$ (13.2)	$ (86.8)	$ (37.4)

(1) As noted above, amounts include our proportionate share of the GGEs sold as CNG by our joint venture with MCEP. GGEs sold by this joint venture were 0.4 million, 0.3 million and 0.4 million for the years ended December 31, 2019, 2020 and 2021, respectively, 0.1 million for each of the three months ended June 30, 2021 and 2022, and 0.1 million and 0.3 million for the six months ended June 30, 2021 and 2022, respectively.

(2) Represents GGEs at stations where we provide both fuel and O&M services.

(3) Includes the following amounts of AFTC revenue: $47.1 million, $19.8 million and $20.7 million for the years ended December 31, 2019, 2020 and 2021, respectively, $5.2 million and $9.7 million for the three and six months ended June 30, 2021, respectively, and $0.2 million for the six months ended June 30, 2022. No AFTC revenue is included for the three months ended June 30, 2022.

(4) Gross margin includes an unrealized gain (loss) from the change in fair value of commodity swap and customer fueling contracts of $(6.6) million, $2.1 million and $(3.5) million for the years ended December 31, 2019, 2020 and 2021, respectively, $(0.5) million and $(1.1)million for the three months ended June 30, 2021 and 2022, respectively, and $(2.5) million and $(2.1) million for the six months ended June 30, 2021 and 2022, respectively. See Note 6 for more information regarding the commodity swap and customer contracts.

(5) Includes $83.6 million of non-cash stock-based sales incentive contra-revenue charges for the year ended December 31, 2021 relating to the Amazon Warrant, $78.1 million for the three and six months ended June 30, 2021, and $4.8 million and $8.5 million for the three and six months ended June 30, 2022, respectively. No amounts of non-cash stock-based sales incentive contra-revenue charges related to the Amazon Warrant were recorded for the years ended December 31, 2019 and 2020.

Recent Developments

NG Advantage Debt Refinancing. On January 31, 2022, NG Advantage entered into a second amendment to the Amended and Restated Loan and Security Agreement with Berkshire Bank (the "Berkshire ALA") pursuant to which Berkshire Bank agreed to extend new term loans in an aggregate principal amount of $14.0 million (collectively, the "Berkshire Term Loan 2") to NG Advantage. The Berkshire Term Loan 2 bears interest at an annual interest rate of 5% and has a maturity date of January 31, 2027. Payments for interest and principal are due monthly beginning March 1, 2022, with a final payment of remaining principal and interest due on the maturity date. Borrowings under the Berkshire Term Loan 2 are collateralized by NG Advantage's trailers and station assets, and prepayment of the outstanding principal is permitted and subject to prepayment premiums. NG Advantage used the proceeds from the Berkshire Term Loan 2 to extinguish $11.1 million of existing financing obligations, consisting of $10.4 million in cash payoffs and an application of $0.8 million in deposits held with the former lenders. As a result of the extinguishment, we recognized a $2.3 million loss on extinguishment of debt, which is included in "interest expense" in the accompanying condensed consolidated statements of operations for the six months ended June 30, 2022. In connection with the second amendment to the Berkshire ALA, Berkshire Bank released $7.0 million, classified in "Restricted cash" on the accompanying condensed consolidated balance sheets as of December 31, 2021, to the Company related to the Company's limited guaranty under the Berkshire ALA.

NG Advantage Fixed Supply Commitment. NG Advantage had entered into an arrangement with bp for the supply, sale and reservation of a specified volume of CNG transportation capacity through February 2022. In connection with that arrangement, in February 2018, we entered into a guaranty agreement with NG Advantage and bp, which was amended in June 2020, pursuant to which we guaranteed NG Advantage's payment obligations to bp in the event of a default by NG Advantage under the supply arrangement, in an amount up to $15.0 million plus related fees. On February 28, 2022, the supply arrangement between NG Advantage and bp expired. Upon termination of the supply arrangement between NG Advantage and bp, we provided our notice to bp of termination, and our guaranty remained in effect until thirty days following our notice. As of June 30, 2022, our obligations under the guaranty agreement were fully released.

bp Joint Venture. On June 30, 2022, we satisfied our capital contribution commitment under the first bpJV capital call and paid the outstanding contribution balance of $51.6 million to the bp Joint Venture ("bpJV"). In March 2022, the bpJV issued a second capital call (the "bpJV Capital Call 2") in the amount of $76.2 million to provide capital for anaerobic digester gas ("ADG") RNG projects under the bpJV and to fund bpJV's working capital needs. Pursuant to the bpJV Capital Call 2, we and bp are each required to contribute $38.1 million to the bpJV on or prior to September 30, 2022. As of June 30, 2022, no capital contribution under the bpJV Capital Call 2 had been paid by us or bp, and we and bp each own 50% of the bpJV.

Plains Credit Facility. On January 31, 2022, we issued an irrevocable standby letter of credit to Berkshire Bank for $7.0 million as collateral under the second amendment to the Berkshire ALA. The standby letter of credit is valid until specified release conditions are satisfied and is collateralized by the Plains LSA (as defined in Note 12). As of June 30, 2022, no amounts have been drawn under the standby letter of credit.

Share Repurchase Program. On March 12, 2020, our Board of Directors approved a share repurchase program (the "Repurchase Program") for up to $30.0 million (exclusive of fees and commissions) of our outstanding common stock. On December 7, 2021, our Board of Directors approved an increase in the aggregate purchase amount under the Repurchase Program from $30.0 million to $50.0 million (exclusive of fees and commissions). The Repurchase Program does not have an expiration date, does not obligate us to acquire any specific number of shares, and may be suspended or discontinued at any time. For the six months ended June 30, 2022, we repurchased 1,190,254 shares of our common stock under the Repurchase Program for a total cost of $6.1 million (exclusive of fees and commissions) at an average price of $5.12 per share. As of June 30, 2022, we had utilized a total of $23.5 million under the Repurchase Program from its inception to repurchase 9,387,340 shares of our common stock and had a total of $26.5 million of authorized funds remaining under the Repurchase Program.

Fueling Stations Removal Obligations. On July 7, 2022, we entered into an amendment to our Liquefied Natural Gas Fueling Station and LNG Master Sales Agreement with Pilot Travel Centers LLC ("Pilot"), dated August 2, 2010, to decommission and remove certain fueling stations located on Pilot's premises as agreed to in a phased removal schedule. The removal of the fueling stations is anticipated to commence in the third quarter of 2022 and is expected to be completed by the end of the first quarter of 2023. We estimate that total costs related to the removal of the fueling stations will be approximately $8.7 million, consisting of asset retirement obligation charges and accelerated depreciation expense related to changes in depreciable life of the affected station assets.

Business Risks and Uncertainties and Other Trends

Our business and prospects are exposed to numerous risks and uncertainties. For more information, see "Risk Factors" in Part II, Item 1A of this report. In addition, our performance in any period may be affected by various trends in our business and our industry, including certain seasonality trends. See the description of the key trends in our past performance and anticipated future trends included in the MD&A contained in our 2021 Form 10-K. Except as set forth below, and in "Impact of COVID-19" above, there have been no material changes to such trends as described in the MD&A contained in our 2021 Form 10-K.

The market for our vehicle fuels is a relatively new and developing market, and has experienced slow, volatile or unpredictable growth in many sectors. For example, to date, adoption and deployment of natural gas vehicles, both in general and in certain of our key customer markets, including heavy-duty trucking, have been slower than we anticipated. Also, other important markets, including airports, refuse and public transit, experienced slowdowns in volume and customer growth in 2021 and in the six months ended June 30, 2022. Slower growth may continue if the effects of the COVID-19 pandemic linger, as well as due to other unfavorable macroeconomic events, including inflationary pressures.

Market prices for RINs and LCFS Credits can be volatile and unpredictable, and the prices for such credits can be subject to significant fluctuations. The value of RINs and LCFS Credits (derived from market prices) can materially affect our revenue. For example, from approximately the beginning of June 2019 to January 2020, market prices for RINs trended to historical lows. Although RIN prices have generally increased since late January 2020, prices have fluctuated significantly during 2021 and into 2022 and will likely continue to be volatile. Further, LCFS Credit prices have fluctuated significantly during 2021 and into 2022 and will likely continue to be volatile.

In addition, based on our historical experience, we believe AFTC will be reinstated during 2022 and apply retroactively to vehicle fuel sales made beginning January 1, 2022. We anticipate AFTC revenue to be approximately $21.2 million for 2022 after giving consideration to the effect of COVID-19 described above under "Impact of COVID-19." However, there can be no assurance that AFTC will be reinstated for any portion of 2022, if at all. If AFTC is not extended after 2021, then our anticipated revenue from AFTC would be materially adversely affected. See Part II, Item 1A. "Risk Factors" of this report.

The market price of our common stock can be volatile and unpredictable. If a decline of our market capitalization were sustained we may need to perform goodwill impairment tests more frequently and it is possible that our goodwill could become impaired, which could result in material non-cash charges and adversely affect our results of operations.

Debt Compliance

Certain of the agreements governing our outstanding debt, which are discussed in Note 12, have financial and non-financial covenants with which we must comply. As of June 30, 2022, we were in compliance with all of these covenants.

Risk Management Activities

Our risk management activities are discussed in the MD&A contained in our 2021 Form 10-K. During the six months ended June 30, 2022, there were no material changes to these activities.

Critical Accounting Policies and Estimates

The preparation of our condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires the appropriate application of accounting policies, some of which require us to make estimates and assumptions that affect the amounts reported and related disclosures in our condensed consolidated financial statements. We base our estimates on historical experience and various assumptions that we believe are reasonable under the circumstances. To the extent there are differences between these estimates and actual results, our financial condition or results of operations could be materially affected.

Our critical accounting policies and the related judgments and estimates are discussed in the MD&A contained in our 2021 Form 10-K. Except for our adoption of new guidance for leases effective January 1, 2022, which is described in Note 1, there have been no other material changes to our critical accounting policies as described in the MD&A contained in our 2021 Form 10-K.

Recently Adopted and Recently Issued Accounting Standards

See Note 1 for a description of recently adopted accounting standards and recently issued accounting standards pending adoption.

Results of Operations

The table below presents, for each period indicated, each line item of our statements of operations data as a percentage of our total revenue for the period. Additionally, the narrative that follows provides a comparative discussion of certain of these line items between the periods indicated. Historical results are not indicative of the results to be expected in the current period or any future period.

Three Months Ended June 30, 2022 Compared to Three Months Ended June 30, 2021

	Three Months Ended June 30, 2021	Three Months Ended June 30, 2022
Statements of Operations Data:		
Revenue:		
Product revenue	(1,867.7)%	88.3 %
Service revenue	1,967.7	11.7
Total revenue	100.0	100.0
Operating expenses:		
Cost of sales (exclusive of depreciation and amortization shown separately below):		
Product cost of sales	8,602.9	67.8
Service cost of sales	1,170.2	6.3
Selling, general and administrative	4,501.3	27.2
Depreciation and amortization	2,371.0	10.9
Total operating expenses	16,645.4	112.2
Operating loss	(16,545.4)	(12.2)
Interest expense	(208.8)	(0.8)
Interest income	50.0	0.5
Other income, net	34.6	—
Income (loss) from equity method investments	25.2	(1.2)
Loss before income taxes	(16,644.4)	(13.7)
Income tax expense	(11.7)	(0.1)
Net loss	(16,656.1)	(13.8)
Loss attributable to noncontrolling interest	58.8	0.1
Net loss attributable to Clean Energy Fuels Corp.	(16,597.3)%	(13.7)%

Revenue. Revenue increased by $96.7 million to $97.2 million in the three months ended June 30, 2022, from $0.5 million in the three months ended June 30, 2021. Revenue for the three months ended June 30, 2021 was negatively affected by the Amazon Warrant Charges (see Note 14) of $78.1 million compared to $4.8 million for the three months ended June 30, 2022. Excluding the effect of the Amazon Warrant Charges, the increase in revenue was primarily due to an increase in volume-related revenue, partially offset by a decrease in AFTC revenue of $5.2 million, an increase in unrealized loss from the change in fair value of our commodity swap and customer contracts entered into in connection with our *Zero Now* truck financing program, and lower station construction sales.

Volume-related revenue, excluding the effects of the change in fair value of our commodity swap and customer contracts entered in connection with our *Zero Now* truck financing program and the Amazon Warrant Charges, increased by $29.4 million between periods, attributable to an increase in gallons delivered and an increase in the effective price per gallon. The effect to volume-related revenue as a result of the change in fair value of our commodity swap and customer contracts entered into in connection with our *Zero Now* truck financing program was $(0.6) million, as we recognized an unrealized loss of $0.5 million in 2021 compared to an unrealized loss of $1.1 million in 2022 (see Note 6 for more information).

Our effective price per gallon increased by $0.24 per gallon to $0.91 per gallon in the three months ended June 30, 2022, compared to $0.67 per gallon in the three months ended June 30, 2021, excluding the effects of the change in fair value of derivative instruments and Amazon Warrant Charges discussed above. Our effective price per gallon is defined as revenue generated from selling RNG and conventional natural gas, and any related Environmental Credits and providing O&M services to our vehicle fleet customers at stations we do not own and for which we receive a per-gallon or fixed fee, all divided by the total GGEs delivered less GGEs delivered by non-consolidated entities, such as entities that are accounted for under the equity method. The increase in our effective price per gallon was primarily due to higher RIN and natural gas prices, and a favorable fuel price mix, which is based on the variation of fuel types and locations where we deliver fuel.

Station construction sales decreased by $0.1 million between periods due to decreased construction activities as a result of permitting and utility delays associated with the ongoing effects of COVID-19.

AFTC revenue decreased by $5.2 million between periods due to the expiration of the AFTC program after December 31, 2021. Based on our historical experience, we expect AFTC will be reinstated during 2022 and apply retroactively to vehicle fuel sales made beginning January 1, 2022. However, there can be no assurance that AFTC will be reinstated for any portion of 2022, if at all. See Part II, Item 1A. “Risk Factors” of this report.

Cost of sales. Cost of sales increased by $25.2 million to $72.1 million in the three months ended June 30, 2022, from $46.9 million in the three months ended June 30, 2021. This increase was primarily due to an increase in gallons delivered, and an increase in our effective cost per gallon delivered, partially offset by a decrease in the cost of station construction activities.

Our effective cost per gallon increased by $0.22 per gallon to $0.63 per gallon in the three months ended June 30, 2022 from $0.41 per gallon in the three months ended June 30, 2021. Our effective cost per gallon is defined as the total costs associated with delivering our fuels, including commodity costs, transportation fees, liquefaction charges, and other site operating costs, plus the total cost of providing O&M services at stations that we do not own and for which we receive a per-gallon or fixed fee, including direct technician labor, indirect supervisor and management labor, repair parts and other direct maintenance costs, all divided by the total GGEs delivered less GGEs delivered by non-consolidated entities, such as entities that are accounted for under the equity method. The increase in our effective cost per gallon was due to higher commodity prices and transportation costs.

Selling, general and administrative. Selling, general and administrative expenses increased by $4.9 million to $26.5 million in the three months ended June 30, 2022, from $21.6 million in the three months ended June 30, 2021. This increase was primarily driven by an increase in stock-based compensation expense due to equity awards granted during 2021, an increase in salaries, bonuses and benefits, and an increase in travel and general business expense.

Depreciation and amortization. Depreciation and amortization decreased by $0.8 million to $10.6 million in the three months ended June 30, 2022, from $11.4 million in the three months ended June 30, 2021, primarily due to a lower amount of depreciable assets.

Interest expense. Interest expense decreased by $0.3 million to $0.7 million in the three months ended June 30, 2022, from $1.0 million in the three months ended June 30, 2021, primarily due to lower outstanding indebtedness and lower average interest rates between periods.

Other income, net. Other income, net decreased by $0.2 million to $0.0 million in the three months ended June 30, 2022, from $0.2 million in the three months ended June 30, 2021, primarily due to certain other fees earned in the prior year period.

Income (loss) from equity method investments. Income (loss) from equity method investments changed by $1.3 million to loss of $(1.2) million in the three months ended June 30, 2022, from an income of $0.1 million in the three months ended June 30, 2021, primarily due to the operating results of SAFE&CEC S.r.l, the bpJV and the TotalEnergies JV.

Income tax expense. Income tax expense remained consistent at $0.1 million for each of the three months ended June 30, 2021 and June 30, 2022. The expense is primarily composed of deferred taxes associated with goodwill and the Company’s expected state tax expense, which was consistent between the periods.

Loss attributable to noncontrolling interest. During the three months ended June 30, 2022 and 2021, we recorded a gain of $0.1 million and $0.3 million, respectively, for the noncontrolling interest in the net loss of NG Advantage. The noncontrolling interest in NG Advantage represents a 6.7% minority interest that was held by third parties during both the 2022 and 2021 periods.

Six Months Ended June 30, 2022 Compared to Six Months Ended June 30, 2021

	Six Months Ended June 30,	
	2021	2022
Statements of Operations Data:		
Revenue:		
Product revenue	75.7 %	87.6 %
Service revenue	24.3	12.4
Total revenue	100.0	100.0
Operating expenses:		
Cost of sales (exclusive of depreciation and amortization shown separately below):		
Product cost of sales	110.9	68.4
Service cost of sales	14.4	7.1
Selling, general and administrative	55.5	30.1
Depreciation and amortization	29.8	12.1
Total operating expenses	210.6	117.7
Operating loss	(110.6)	(17.7)
Interest expense	(3.1)	(2.1)
Interest income	0.6	0.4
Other income, net	1.1	—
Loss from equity method investments	(0.4)	(1.6)
Loss before income taxes	(112.4)	(21.0)
Income tax expense	(0.2)	(0.1)
Net loss	(112.6)	(21.1)
Loss attributable to noncontrolling interest	0.7	0.3
Net loss attributable to Clean Energy Fuels Corp.	(111.9)%	(20.8)%

Revenue. Revenue increased by $103.1 million to $180.7 million in the six months ended June 30, 2022, from $77.6 million in the six months ended June 30, 2021. Revenue for the six months ended June 30, 2021 was negatively affected by the Amazon Warrant Charges (see Note 14) of $78.1 million compared to $8.5 million for the six months ended June 30, 2022. Excluding the effect of the Amazon Warrant Charges, the increase in revenue was primarily due to an increase in volume-related revenue and a decrease in unrealized loss from the change in fair value of our commodity swap and customer contracts entered into in connection with our *Zero Now* truck financing program, partially offset by a decrease in AFTC revenue of $9.5 million and lower station construction sales.

Volume-related revenue, excluding the effects of the change in fair value of our commodity swap and customer contracts entered in connection with our *Zero Now* truck financing program and the Amazon Warrant Charges, increased by $44.0 million between periods, attributable to an increase in gallons delivered and a higher effective price per gallon delivered. The effect on volume-related revenue as a result of the change in fair value of our commodity swap and customer contracts entered into in connection with our *Zero Now* truck financing program was $0.4 million, as we recognized an unrealized loss of $2.5 million in 2021 compared to an unrealized loss of $2.1 million in 2022 (see Note 6 for more information).

Our effective price per gallon increased by $0.19 per gallon to $0.90 per gallon in the six months ended June 30, 2022, compared to $0.71 per gallon in the six months ended June 30, 2021, excluding the effects of the change in fair value of derivative instruments and Amazon Warrant Charges discussed above. The increase in our effective price per gallon was due to higher RIN and natural gas prices, and a favorable fuel price mix, which is based on the variation of fuel types and locations where we deliver fuel.

Station construction sales decreased by $1.3 million between periods due to decreased construction activities as a result of permitting and utility delays associated with the ongoing effects of COVID-19.

AFTC revenue decreased by $9.5 million between periods due to the expiration of the AFTC program after December 31, 2021. Based on our historical experience, we expect AFTC will be reinstated during 2022 and apply retroactively to vehicle fuel sales made beginning January 1, 2022. However, there can be no assurance that AFTC will be reinstated for any portion of 2022, if at all. See Part II, Item 1A. "Risk Factors" of this report.

Cost of sales. Cost of sales increased by $39.0 million to $136.3 million in the six months ended June 30, 2022, from $97.3 million in the six months ended June 30, 2021. This increase was primarily due to an increase in gallons delivered and an increase in our effective cost per gallon delivered, partially offset by a decrease in the cost of station construction activities.

Our effective cost per gallon increased by $0.18 per gallon to $0.63 per gallon in the six months ended June 30, 2022, from $0.45 per gallon in the six months ended June 30, 2021. The increase in our effective cost per gallon was due to higher commodity prices and transportation costs.

Selling, general and administrative. Selling, general and administrative expenses increased by $11.4 million to $54.4 million in the six months ended June 30, 2022, from $43.0 million in the six months ended June 30, 2021. This increase was primarily driven by an increase in stock-based compensation expense due to equity awards granted during 2021, an increase in salaries, bonuses and benefits, and an increase in travel and general business expense.

Depreciation and amortization. Depreciation and amortization decreased by $1.2 million to $21.9 million in the six months ended June 30, 2022, from $23.1 million in the six months ended June 30, 2021, primarily due to a lower amount of depreciable assets.

Interest expense. Interest expense increased by $1.4 million to $3.8 million in the six months ended June 30, 2022, from $2.4 million in the six months ended June 30, 2021. This increase was primarily due to a loss from extinguishment of debt of $2.3 million recognized during the first quarter of 2022 relating to the full repayment of certain financing obligations of NG Advantage. The increase is partially offset by lower outstanding indebtedness between periods.

Other income, net. Other income, net decreased by $0.8 million to $0.0 million in the six months ended June 30, 2022, from $0.8 million in the six months ended June 30, 2021, primarily due to certain other fees earned in the prior year period.

Loss from equity method investments. Loss from equity method investments increased by $2.6 million to $2.9 million in the six months ended June 30, 2022, from $0.3 million in the six months ended June 30, 2021, primarily due to the operating results of SAFE&CEC S.r.l., the bpJV and the TotalEnergies JV.

Income tax expense. Income tax expense was $0.1 million for each of the six months ended June 30, 2021 and June 30, 2022. The expense is primarily composed of deferred taxes associated with goodwill and the Company's expected state tax expense, which was consistent between the periods.

Loss attributable to noncontrolling interest. During the six months ended June 30, 2022 and 2021, we recorded a gain of $0.5 million and $0.6 million, respectively, for the noncontrolling interest in the net loss of NG Advantage. The noncontrolling interest in NG Advantage represents a 6.7% minority interest that was held by third parties during both the 2022 and 2021 periods.

Liquidity and Capital Resources

Liquidity

Liquidity is the ability to meet present and future financial obligations through operating cash flows, the sale or maturity of investments or the acquisition of additional funds through capital management. Our financial position and liquidity are, and will continue to be, influenced by a variety of factors, including the level of our outstanding indebtedness and the principal and interest we are obligated to pay on our indebtedness, which could be influenced by the discontinuance of LIBOR for certain of our debt instruments that tie interest rates to this metric; the amount and timing of any capital calls related to the TotalEnergies JV, bpJV, or any other joint venture we may enter into in the future; the amount and timing of any additional debt or equity financing we may pursue; our capital expenditure requirements; any merger, divestiture or acquisition activity; and our ability to generate cash flows from our operations. We expect cash provided by our operating activities to fluctuate as a result of a number of factors, including our operating results and the factors that affect these results, including the amount and timing of our vehicle fuel sales, station construction sales, sales of RINs and LCFS Credits and recognition of government credits, the effects of COVID-19, grants and incentives, if any; fluctuations in commodity, station construction and labor costs; environmental credit prices; variations in the fair value of certain of our derivative instruments that are recorded in revenue; and the amount and timing of our billing, collections and liability payments.

Cash Flows

Cash provided by operating activities was $32.2 million in the six months ended June 30, 2022, compared to cash provided by operating activities of $12.9 million in the comparable 2021 period. The increase in cash provided by operating activities was primarily attributable to changes in working capital from the comparable 2021 period, resulting from the timing of receipts and payments of cash in the six months ended June 30, 2022.

Cash used in investing activities was $70.4 million in the six months ended June 30, 2022, compared to cash used in investing activities of $150.4 million in the comparable 2021 period. The decrease in cash used in investing activities from the comparable 2021 period was primarily attributable to an increase in maturities and sales of our available-for-sale debt securities, partially offset by higher expenditures for property and equipment and RNG production projects.

Cash used in financing activities was $10.7 million in the six months ended June 30, 2022, compared to $158.4 million provided by financing activities in the comparable 2021 period. The decrease in cash provided by financing activities was primarily attributable to the net proceeds received from the issuance of common stock in connection with our ATM Programs in 2021. There were no ATM program activities in the comparable 2022 period.

Capital Expenditures, Indebtedness and Other Uses of Cash

We require cash to fund our capital expenditures, operating expenses and working capital and other requirements, including costs associated with fuel sales; outlays for the design and construction of new fueling stations; additions or other modifications to existing fueling stations; RNG production facilities; debt repayments and repurchases; repurchases of common stock; purchases of heavy-duty trucks that use our fuels; additions or modifications of LNG production facilities; supporting our operations, including maintenance and improvements of our infrastructure; supporting our sales and marketing activities, including support of legislative and regulatory initiatives; financing vehicles for our customers; any investments in other entities; any mergers or acquisitions, including acquisitions to expand our RNG production capacity; pursuing market expansion as opportunities arise, including geographically and to new customer markets; and to fund other activities or pursuits and for other general corporate purposes.

Our business plan calls for approximately $63.5 million in capital expenditures in 2022. These capital expenditures primarily relate to the construction of fueling stations, IT software and equipment and LNG plant costs, and we expect to fund these expenditures primarily through cash on hand and cash generated from operations. Further, in 2022, we anticipate deploying up to approximately $195.0 million to develop ADG RNG production facilities, which includes the $51.6 million paid on June 30, 2022 in connection with the bpJV Capital Call and the $38.1 million due by September 30, 2022 in connection with the bpJV Capital Call 2.

In addition, NG Advantage may spend up to $0.6 million in 2022 to purchase additional equipment in support of its operations and customer contracts. Although NG Advantage has sought financing from third parties for capital expenditures, we have provided and may continue to provide financing for these capital expenditures.

We had total indebtedness, consisting of our debt and finance leases, of approximately $35.5 million in principal amount as of June 30, 2022, of which approximately $6.7 million, $2.9 million, $3.9 million, $11.4 million, and $10.6 million is expected to become due in 2022, 2023, 2024, 2025, and 2026, respectively. We expect our total interest payment obligations relating to our indebtedness to be approximately $1.9 million in 2022, $0.9 million of which had been paid when due as of June 30, 2022. We plan to and believe we are able to make all expected principal and interest payments in the next 12 months.

We also have indebtedness, including the amount representing interest, from our operating leases of approximately $66.9 million as of June 30, 2022, of which approximately $3.1 million, $6.3 million, $6.3 million, $6.2 million, $6.1 million and $38.9 million is expected to become due in 2022, 2023, 2024, 2025, 2026 and thereafter, respectively.

In addition, in connection with implementing our *Zero Now* truck financing program, we have entered into agreements that permit us to incur a material amount of additional debt on a delayed draw basis and obligate us to make interest and other fee payments that vary in amount depending on the outstanding principal of this debt and certain other factors; none of this potential debt nor the related interest and other payments are included in the foregoing estimates, other than the principal amount of $4.5 million outstanding as of June 30, 2022. Our ability to draw additional debt under these agreements expired on January 2, 2022.

We intend to make payments under our various debt instruments when due and pursue opportunities for earlier repayment and/or refinancing if and when these opportunities arise. Although we believe we have sufficient liquidity and capital resources to repay our debt coming due in the next 12 months, we may elect to suspend, or limit repurchases under, our share repurchase program or pursue alternatives, such as refinancing, or debt or equity offerings, to increase our cash management flexibility.

Sources of Cash

Historically, our principal sources of liquidity have consisted of cash on hand; cash provided by our operations, including, if available, AFTC and other government credits, grants and incentives; cash provided by financing activities; and sales of assets. As of June 30, 2022, we had total cash and cash equivalents and short-term investments of $187.5 million, compared to $229.2 million as of December 31, 2021.

In addition, we expect AFTC will be reinstated during 2022 and apply retroactively to vehicle fuel sales made beginning January 1, 2022, and we anticipate AFTC revenue to be approximately $21.2 million for 2022 after giving consideration to the effect of COVID-19 described above under “Impact of COVID-19.” However, there can be no assurance that AFTC will be reinstated for any portion of 2022, if at all. If AFTC is not extended after 2021, then our anticipated revenue from AFTC would be materially adversely affected. See Part II, Item 1A. “Risk Factors” of this report.

We expect cash provided by our operating activities to fluctuate depending on our operating results, which can be affected by the factors described above, as well as the other factors described in this MD&A and Part II, Item 1A. “Risk Factors” of this report.

Subject to the following paragraph, we believe our cash and cash equivalents and short-term investments and anticipated cash provided by our operating and current or future financing activities will satisfy our expected business requirements for at least the 12 months following the date of this report. Subsequent to that period, we may need to raise additional capital to fund any planned or unanticipated capital expenditures, investments, debt repayments, share repurchases or other expenses that we cannot fund through cash on-hand, cash provided by our operations or other sources. Moreover, we may use our cash resources faster than we predict due to unexpected expenditures, the effects of COVID-19, or higher-than-expected expenses due to inflationary pressures or otherwise, in which case we may need to seek capital from alternative sources sooner than we anticipate. The timing and necessity of any future capital raise would depend on various factors, including our rate and volume of, and prices for, natural gas fuel sales and other volume-related activity, the effects of COVID-19, new station construction, debt repayments (either before or at maturity) and any potential mergers, acquisitions, investments, divestitures or other strategic relationships we may pursue, as well as the other factors that affect our revenue and expense levels as described in this MD&A and elsewhere in this report.

If we deploy additional capital to develop ADG RNG production facilities and fueling stations to support contracted RNG fueling volume, we could be required to raise additional capital.

We may raise additional capital through one or more sources, including, among others, obtaining equity capital, including through offerings of our common stock or other securities, obtaining new or restructuring existing debt, selling assets, or any combination of these or other potential sources of capital. We may not be able to raise capital when needed, on terms that are favorable to us or our stockholders or at all. Any inability to raise necessary capital may impair our ability to develop and maintain fueling infrastructure, invest in strategic transactions or acquisitions or repay our outstanding indebtedness and may reduce our ability to support and build our business and generate sustained or increased revenue.

Off-Balance Sheet Arrangements

As of June 30, 2022, we had the following off-balance sheet arrangements that have had, or are reasonably likely to have, a material current or future effect on our financial condition, changes in financial condition, revenue or expenses, results of operations, liquidity, capital expenditures or capital resources:

- Outstanding surety bonds for construction contracts and general corporate purposes totaling $47.7 million;

- Quarterly fixed-price natural gas purchase contracts with take-or-pay commitments; and

- One long-term natural gas sale contract with a fixed supply commitment.

We provide surety bonds primarily for construction contracts in the ordinary course of our business, as a form of guarantee. No liability has been recorded in connection with our surety bonds because, based on historical experience and available information, we do not believe it is probable that any amounts will be required to be paid under these arrangements for which we will not be reimbursed.

As of June 30, 2022, we had quarterly fixed-price natural gas purchase contracts with take-or-pay commitments extending through June 2023. The long-term natural gas purchase contract with a take-or-pay commitment, which required us to purchase minimum volumes of natural gas at index-based prices, expired in June 2022 and was not subsequently renewed.

In addition, as of June 30, 2022, we have a fixed supply arrangement with UPS for the supply and sale of 170.0 million GGEs of RNG through March 2026.

NG Advantage had entered into an arrangement with bp for the supply, sale and reservation of a specified volume of CNG transportation capacity through February 2022. In connection with that arrangement, in February 2018, we entered into a guaranty agreement with NG Advantage and bp, which was amended in June 2020, pursuant to which we guaranteed NG Advantage’s payment obligations to the customer in the event of a default by NG Advantage under the supply arrangement, in an amount up to $15.0 million plus related fees. On February 28, 2022, the supply arrangement between NG Advantage and bp expired. Upon termination of the supply arrangement between NG Advantage and bp, we provided our notice to bp of termination, and our guaranty remained in effect until thirty days following our notice. As of June 30, 2022, our obligations under the guaranty agreement were fully released.

Item 3.—Quantitative and Qualitative Disclosures about Market Risk

In the ordinary course of our business, we are exposed to various market risks, including commodity price risks, risks related to foreign currency exchange rates, and risks related to fluctuations in interest rates.

Commodity Price Risk

We are subject to market risk with respect to our sales of natural gas, which have historically been subject to volatile market conditions. Our exposure to market risk is heightened when we have a fixed-price sales contract with a customer that is not covered by a futures contract, or when we are otherwise unable to pass through natural gas price increases to customers. Natural gas prices and availability are affected by many factors, including, among others, drilling activity, supply, weather conditions, the global trade environment, overall economic conditions and foreign and domestic government regulations.

Natural gas costs represented $111.8 million of our total cost of sales in 2021 and $80.4 million of our total cost of sales for the six months ended June 30, 2022.

In October 2018, in support of our *Zero Now* truck financing program, we entered into two commodity swap contracts with TotalEnergies Gas & Power North America, an affiliate of TotalEnergies and THUSA, for a total of five million diesel gallons annually from April 1, 2019 to June 30, 2024. These commodity swap contracts are intended to manage risks related to the diesel-to-natural gas price spread in connection with the natural gas fuel supply commitments we make in our fueling agreements with fleet operators that participate in the *Zero Now* truck financing program.

We have prepared a sensitivity analysis to estimate our exposure to price risk with respect to our commodity swap contracts. If the diesel-to-natural gas price spread were to fluctuate by 10% as of June 30, 2022, then a corresponding fluctuation in the fair value of our commodity swap contracts would have been approximately $1.8 million.

Foreign Currency Exchange Rate Risk

For the three months ended June 30, 2022, our primary exposure to foreign currency exchange rates relates to our Canadian operations that had certain outstanding accounts receivable and accounts payable denominated in Canadian dollar, which were not hedged.

We performed a sensitivity analysis to estimate our exposure to market risk with respect to our monetary transactions denominated in a foreign currency. If the exchange rates on these assets and liabilities were to fluctuate by 10% from the rates as of June 30, 2022, we would expect a corresponding fluctuation in the value of the assets and liabilities of approximately $0.1 million, net.

Interest Rate Risk

As of June 30, 2022, we had $4.5 million of debt that bears interest at a rate equal to LIBOR or the Prime Rate plus a margin per annum. Thus, our interest expense would fluctuate with changes in LIBOR or the Prime Rate. If these rates were to each increase or decrease by 1% for the year, our annual interest expense would increase or decrease by approximately $0.1 million.

The SG Credit Agreement permitted us to draw loans through the beginning of January 2022. These loans are subject to an interest rate indexed to LIBOR. Certain LIBOR tenors were discontinued after 2021 with other LIBOR tenors to be discontinued after June 2023. We intend to monitor the developments with respect to the discontinuance of LIBOR and work with our lenders under the credit agreements, including SG, and any other indebtedness with an interest rate tied to LIBOR to minimize the effect of such a discontinuance on our financial condition and results of operations; however, the effect of the anticipated discontinuance of LIBOR on us and our debt instruments remains uncertain. If our lenders have increased costs due to changes in LIBOR, we may experience potential increases in interest rates on our variable rate debt, which could adversely affect our interest expense, results of operations and cash flows.

Item 4.—Controls and Procedures

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Our management carried out an evaluation, with the participation of our Chief Executive Officer and Chief Financial Officer (our principal executive and principal financial officers, respectively), of the effectiveness of our disclosure controls and procedures as of June 30, 2022. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of June 30, 2022.

Changes in Internal Control over Financial Reporting

We regularly review and evaluate our internal control over financial reporting, and from time to time we may make changes to our processes and systems to improve controls or increase efficiencies. Such changes may include, among others, implementing new and more efficient systems, consolidating activities, and migrating processes.

There were no changes in our internal control over financial reporting that occurred during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations of Disclosure Controls and Procedures and Internal Control Over Financial Reporting

In designing our disclosure controls and procedures and internal control over financial reporting, management recognizes that any controls and procedures, no matter how well-designed and operated, can provide only reasonable assurance of achieving the desired control objectives. In addition, the design of our controls and procedures must reflect the fact that there are resource constraints, and management necessarily applies its judgment in evaluating the benefits of possible controls and procedures relative to their costs. Because of these inherent limitations, our disclosure and internal controls may not prevent or detect all instances of fraud, misstatements or other control issues. In addition, projections of any evaluation of the effectiveness of disclosure or internal controls to future periods are subject to risks, including, among others, that controls may become inadequate because of changes in conditions or that compliance with policies or procedures may deteriorate.

PART II.—OTHER INFORMATION

Item 1. —Legal Proceedings

From time to time, we may become involved in various legal proceedings that arise in the ordinary course of our business, including lawsuits, claims, audits, government enforcement actions and related matters. It is not possible to predict when or if these proceedings may arise, nor is it possible to predict the outcome of any proceedings that do arise, including, among other things, the amount or timing of any liabilities we may incur, and any such proceedings could have a material effect on us regardless of outcome. In the opinion of management, however, we are not a party, and our properties are not subject, to any pending legal proceedings that are material to us.

Item 1A.—Risk Factors

An investment in our Company involves a high degree of risk of loss. You should carefully consider the risk factors discussed below and all of the other information included in this report and our 2021 Form 10-K before you make any investment decision regarding our securities. We believe the risks and uncertainties described below are the most significant we face, but additional risks and uncertainties not known to us or that we currently deem immaterial could also be or become significant. The occurrence of any of these risks could harm our business, financial condition, results of operations, prospects and reputation and could cause the trading price of our common stock to decline.

Risks Related to Our Business

The COVID-19 pandemic and measures intended to reduce its spread have affected, and may continue to adversely affect, our business, results of operations and financial condition.

Given the dynamic nature of the novel coronavirus (“COVID-19”) pandemic, including the travel bans, quarantines, business limitations and other governmental restrictions that were previously instituted and may in the future be reinstituted, and the related adverse impact these restrictions have had, and may continue to have, on the economy generally, our business and financial results may continue to be adversely affected by the COVID-19 pandemic.

We are subject to various risks and uncertainties because of the COVID-19 pandemic, including a further delay in the adoption of our RNG and natural gas vehicle fuels by heavy-duty trucks and/or a delay in increasing the use of our vehicle fuels; a continued or further decrease in the volume of truck and fleet operations, including shuttle buses at airports, and lower-than-normal levels of public transportation generally, which have resulted and may continue to result in decreased demand for our vehicle fuels; and the impact of business disruptions on the production of vehicles and engines that use our fuels, which has resulted in, and may continue to result in, plant closures, decreased manufacturing capacity, and delays in deliveries.

The duration and extent of the impact of the COVID-19 pandemic on our business and financial results will depend on future developments, including the duration, severity and spread of the pandemic, actions taken to contain its spread, any further resurgence of COVID-19, the severity and transmission rates of new variants of COVID-19, the availability, distribution, public acceptance and efficacy of vaccines and therapeutics for COVID-19, and how quickly and to what extent normal economic and operating conditions can resume and continue within the markets in which we operate, each of which are highly uncertain at this time and outside of our control. Even after the COVID-19 pandemic subsides, we may continue to experience adverse effects to our business and financial results because of its global economic impact, including any economic downturn or recession that has occurred or may occur. The adverse effect of the COVID-19 pandemic or other pandemics, epidemics, or infectious disease outbreaks on our business, results of operations and financial condition could be material.

Our success is dependent on the willingness of fleets and other consumers to adopt our vehicle fuels, which may not occur in a timely manner, at expected levels or at all.

Our success is highly dependent on the adoption by fleets and other consumers of our RNG and conventional natural gas vehicle fuels. The market for our vehicle fuels has experienced slow, volatile and unpredictable growth in many sectors. For example, adoption and deployment of our vehicle fuels in heavy-duty trucking has been slower and more limited than we anticipated. Also, other important fleet markets, including airports and public transit, had slower volume and customer growth in 2019, 2020, 2021 and 2022 year-to-date that may continue. If the market for our vehicle fuels does not develop at improved rates or levels, or if a market develops but we are not able to capture a significant share of the market or the market subsequently declines, our business, prospects, financial condition, and operating results would be harmed.

Factors that may influence the adoption of our vehicle fuels, many of which are beyond our control, include, among others:

- Lack of demand for trucks that use our vehicle fuels;

- Adoption or expansion of government policies, programs, funding or incentives, or increased publicity or popular sentiment in favor of vehicles or fuels other than RNG and natural gas, including long-standing support for gasoline and diesel-powered vehicles, changes to emissions requirements applicable to vehicles powered by gasoline, diesel, RNG, natural gas, or other vehicle fuels and/or growing support for electric and hydrogen-powered vehicles;

- Limitations on the capabilities of utilities to provide services to meet our requirements. For example, natural gas utilities may be unable to expand piping or provide services for new expansions, and electric utilities may lack the capacity to provide service for our projects;

- Perceptions about the benefits of our vehicle fuels relative to gasoline, diesel and other alternative vehicle fuels, including with respect to factors such as supply, cost savings, environmental benefits and safety;

- Increases, decreases or volatility in the supply, demand, use and prices of crude oil, gasoline, diesel, RNG, natural gas and other vehicle fuels, such as electricity, hydrogen, renewable diesel, biodiesel and ethanol;

- Inertia among fleets and fleet vehicle operators, who may be unable or unwilling to prioritize converting a fleet to our vehicle fuels over an operator's other general business concerns, particularly if the operator is not sufficiently incentivized by emissions regulations or other requirements or lacks demand for the conversion from its customers, drivers, or other stakeholders;

- Vehicle cost, fuel efficiency, availability, quality, safety, convenience (to fuel and service), design, performance and residual value, as well as operator perception with respect to these factors, generally and in our key customer markets and relative to comparable vehicles powered by other fuels;

- The development, production, cost, availability, performance, sales and marketing and reputation of engines that are well-suited for the vehicles used in our key customer markets, including heavy-duty trucks and other fleets;

- Increasing competition in the market for vehicle fuels generally, and the nature and effect of competitive developments in this market, including improvements in or perceived advantages of other vehicle fuels and engines powered by these fuels;

- The availability and effect of environmental, tax or other government regulations, programs or incentives that promote our products or other alternatives as a vehicle fuel, including certain programs under which we generate credits by selling RNG as a vehicle fuel, as well as the market prices for such credits; and

- Emissions and other environmental regulations and pressures on producing, transporting, and dispensing our fuels.

In June 2020, CARB adopted the Advanced Clean Trucks regulation, which requires manufacturers to sell a gradually increasing proportion of zero-emission electric trucks, vans and pickup trucks from 2024 onwards. By the year

2045, the Advanced Clean Trucks regulation seeks to have every new commercial vehicle sold in California be zero-emissions. Further, in September 2020, the Governor of the State of California issued an executive order (the “September 2020 Executive Order”) providing that it shall be the goal of California that (i) 100% of in-state sales of new passenger cars and trucks will be zero-emission by 2035, (ii) 100% of medium- and heavy-duty vehicles in California will be zero-emission by 2045 for all operations, where feasible, and by 2035 for drayage trucks, and (iii) the state will transition to 100% zero-emission off-road vehicles and equipment by 2035 where feasible. The September 2020 Executive Order also directed CARB to develop and propose regulations and strategies aimed at achieving the foregoing goals. Among other things, we believe the intent of the Advanced Clean Trucks regulation and the September 2020 Executive Order is to limit and ultimately discontinue the production and use of internal combustion engines because such engines have “tailpipe” emissions. If either the Advanced Clean Trucks regulation or any additional regulations adopted by CARB, including pursuant to the September 2020 Executive Order, is permitted to take effect, it may slow, delay or prevent the adoption by fleets and other commercial consumers of our vehicle fuels, particularly in California. Moreover, because of the adoption of the Advanced Clean Trucks regulation and the issuance of the September 2020 Executive Order, other states have taken steps to enact similar regulations, which actions may accelerate if either regulation is permitted to take effect, thereby slowing, delaying or preventing the adoption of our vehicle fuels in those states as well. These actions could result in state funding and incentive programs being directed only to the adoption of electric vehicles. In December 2021, President Biden signed an executive order (the “2021 Executive Order”) that directs the federal government to achieve certain goals, including purchasing 100% zero-emission vehicles by 2035 for its fleet of over 600,000 cars and trucks.

Our RNG business may not be successful.

Our RNG business consists of procuring RNG from projects we plan to develop and own or from projects owned by third-party producers and reselling this RNG through our fueling infrastructure.

The success of our RNG business depends on our ability to secure, on acceptable terms, a sufficient supply of RNG; sell this RNG in adequate volumes and at prices that are attractive to customers and produce acceptable margins for us; and sell Environmental Credits we may generate under applicable federal or state programs from our sale of RNG as a vehicle fuel at favorable prices.

Our ability to maintain an adequate supply of RNG is subject to risks affecting RNG production. Projects that produce RNG often experience unpredictable production levels or other difficulties due to a variety of factors, including, among others, problems with equipment, severe weather, droughts, financial condition of the applicable anaerobic digester gas (“ADG”) and landfill gas (“LFG”) source owner, health crises, including the ongoing COVID-19 pandemic, construction delays, technical difficulties, high operating costs, limited availability, unfavorable composition of collected feedstock gas, and plant shutdowns caused by upgrades, expansion or required maintenance. In addition, increasing demand for RNG will result in more robust competition for supplies of RNG, including from other vehicle fuel providers, gas utilities (which may have distinct advantages in accessing RNG supply including potential use of ratepayer funds to fund RNG purchases if approved by a utility’s regulatory commission) and other users and providers. If we or any of our RNG suppliers experience these or other difficulties in RNG production processes, or if competition for RNG development projects and supply increases, then our supply of RNG and our ability to resell it as a vehicle fuel could be jeopardized.

Our ability to generate revenue from our sale of RNG or our generation and sale of Environmental Credits depends on many factors, including the markets for RNG as a vehicle fuel and for Environmental Credits. The markets for Environmental Credits have been volatile and unpredictable in recent periods, and the prices for these credits are subject to fluctuations. For example, from the beginning of 2021 to 2022 year-to-date, market prices for RINs were as high as $3.81 and as low as $1.95. Additionally, the value of Environmental Credits, and consequently the revenue levels we may receive from our sale of these credits, may be adversely affected by changes to the federal and state programs under which these credits are generated and sold, prices for and use of oil, diesel or gasoline, the inclusion of additional qualifying fuels in the programs, increased production and use of other fuels in the programs, or other conditions. Our ability to generate revenue from sales of Environmental Credits depends on our strict compliance with these federal and state programs, which are complex and can involve a significant degree of judgment. If the agencies that administer and enforce these programs disagree with our judgments, otherwise determine we are not in compliance, conduct reviews of our activities or make changes to the programs, then our ability to generate or sell these credits could be restricted, permanently limited, or lost entirely, and we could also be subject to fines or other sanctions. Any of these outcomes could force us to purchase credits in the open market to cover any credits we have contracted to sell, retire credits we may have generated but not yet sold, reduce or eliminate a significant revenue stream, or incur substantial additional and unplanned expenses. We experienced many of these effects in connection with the administrative review by CARB of our generation of LCFS Credits in the third and fourth quarters of 2017, during which we were restricted from selling and transferring accumulated LCFS Credits, we were required to make cash payments to third parties to settle preexisting commitments to transfer LCFS Credits, and certain of our LCFS Credits were invalidated. Any permanent or temporary discontinuation or suspension of federal and state programs to provide credits, grants and incentives, such as an alternative fuel tax credit (“AFTC”), would also adversely impact our revenue. The AFTC has not yet been extended for after 2021. Although we believe the AFTC ultimately will be reinstated and applied retroactively for the entire year 2022, there can be no assurance that this will happen. Moreover, in the absence of programs that allow us to generate and sell Environmental Credits or other federal and state programs that support the RNG vehicle fuel market, or if our customers are not willing to pay a premium for RNG, we may be unable to operate our RNG business profitably or at all.

Our commercial success depends on our ability and the ability of our third-party supply sources to successfully develop and operate projects and produce expected volumes of RNG.

Our specific focus on RNG exposes us to risks related to the supply of and demand for RNG and Environmental Credits, the cost of capital expenditures, government regulation, and economic conditions, among other factors. As an RNG supplier we may also be negatively affected by lower RNG production resulting from lack of feedstock, mechanical breakdowns, faulty technology, competitive markets, or changes to the laws and regulations that mandate the use of renewable energy sources.

In addition, other factors related to the development and operation of renewable energy projects could adversely affect our business, including: (i) changes in pipeline gas quality standards or other regulatory changes that may limit our ability to transport RNG on pipelines for delivery to vehicles or increase the costs of processing RNG to allow for such deliveries; (ii) construction risks, including the risk of delay, that may arise because of inclement weather, labor disruptions, disputes, or increases in costs for equipment and construction materials; (iii) operating risks; (iv) weather conditions; (v) financial condition of the applicable source owner; (vi) health of the applicable dairy herd; (vii) consolidation in the dairy industry; (viii) budget overruns; (ix) possible liabilities because of unforeseen environmental, construction, technological or other complications; (x) failures or delays in obtaining desired or necessary rights, including leases and feedstock agreements; and (xi) failures or delays in obtaining and keeping in good standing permits, authorizations and consents from local city, county, state and U.S. federal governments as well as local and U.S. federal governmental organizations. Any of these factors could prevent completion or operation of projects, or otherwise adversely affect our business, financial condition, and results of operations.

Acquisition, financing, construction, and development of projects by us or our partners that own projects may not commence on anticipated timelines or at all.

Our strategy is to continue to expand, including through the acquisition of additional projects and by signing additional supply agreements with third-party project owners. From time to time we and our partners enter into nonbinding letters of intent for projects. Until the negotiations are final, however, and the parties have executed definitive documentation, we or our partners may not be able to consummate any development or acquisition transactions, or any other similar arrangements, on the terms set forth in the applicable letter of intent or at all.

The acquisition, financing, construction and development of projects involves numerous risks, including: the ability to obtain financing for a project on acceptable terms or at all; difficulties in identifying, obtaining, and permitting suitable sites for new projects; failure to obtain all necessary rights to land access and use; inaccuracy of assumptions with respect to the cost and schedule for completing construction; inaccuracy of assumptions with respect to the biogas potential, including quality, volume, and asset life; delays in deliveries or increases in the price of equipment; permitting and other regulatory issues, license revocation and changes in legal requirements; increases in the cost of labor, labor disputes and work stoppages; failure to receive quality and timely performance of third-party or utility services; unforeseen engineering and environmental problems; cost overruns; accidents involving personal injury or the loss of life; and weather conditions, catastrophic events, including fires, explosions, earthquakes, droughts and acts of terrorism, and other force majeure events.

We are dependent on the production of vehicles and engines in our key customer and geographic markets by vehicle and engine manufacturers, over which we have no control.

Vehicle and engine manufacturers control the development, production, quality assurance, cost and sales and marketing of their products, which shapes the performance, availability and reputation of these products in the marketplace. We are dependent on these manufacturers to succeed in our target markets, and we have no influence or control over their activities. For example, Cummins is the only engine manufacturer for the RNG and natural gas heavy-duty truck market in the United States, and Cummins and other original equipment manufacturers currently produce a relatively small number of engines and vehicles that use our vehicle fuels. These manufacturers may decide not to expand or maintain, or may decide to discontinue or curtail, their engine or vehicle product lines for a variety of reasons, including as a result of the adoption of government policies or programs such as the Advanced Clean Trucks regulation and the September 2020 Executive Order. Further, the supply of engines or vehicle product lines by these manufacturers has been and continues to be disrupted/delayed due to the COVID-19 pandemic and global supply chain issues. The limited production of engines and vehicles that use our fuels increases their cost and limits availability, which restricts large-scale adoption, and may reduce resale value, which may contribute to operator reluctance to convert their fleets to vehicles that use our fuels. In addition, some operators have communicated to us that the first-generation models of heavy-duty truck engines using our fuels have a reputation for unsatisfactory performance, and that this reputation or their first-hand experiences of such performance may be a factor in operator decisions regarding whether to convert their fleets to vehicles that use our fuels.

To secure ADG RNG from new projects we develop, we typically face a long and variable development cycle that requires significant resource commitments and a long lead time before we realize revenue.

The development, design and construction process for ADG RNG projects generally lasts between 12 to 18 months on average. Prior to entering into a letter of intent with respect to an ADG RNG project, we typically conduct a preliminary assessment of whether the site is commercially viable based on our expected return on investment, investment payback period, and other operating metrics, as well as the necessary permits to develop a project on that site. After entering into a project letter of intent, we perform a more detailed review of the site’s facilities, which serves as the basis for the final specifications of the project. Finally, we negotiate and execute contracts with the site owner. This extended development process requires the dedication of significant time and resources from our personnel, with no certainty of success or recovery of our expenses. Further, upon commencement of operations, it takes about 12 months for the project to ramp up to expected production level, receive necessary registrations and approvals from the Environmental Protection Agency (the “EPA”) and CARB, and begin generating revenue. All these factors, and in particular, expenditures on development of projects that will not generate significant revenue in the near term, can contribute to fluctuations in our quarterly financial performance and increase the likelihood that our operating results in a particular period will fall below investor expectations.

Livestock waste and dairy farm projects are more dependent on LCFS credits and RINS, and therefore have different economic models and risk profiles than, landfill facilities, and we may not be able to achieve the operating results we expect from these projects.

Livestock waste and dairy farm projects produce less RNG and have higher operating costs than landfill facilities. As a result, these projects are even more dependent on the LCFS credits and, to a lesser extent, RINs for commercial viability. If CARB reduces the CI score that it applies to waste conversion projects, such as dairy digesters, the number of LCFS credits for RNG generated at livestock waste and dairy farm projects will decline. Additionally, revenue from LCFS credits also depends on the price per LCFS credit, which is driven by various market forces, including the supply of and demand for LCFS credits, which in turn depends on the demand for traditional transportation fuel and the supply of renewable fuel from other renewable energy sources, and mandated CI targets, which determine the number of LCFS credits required to offset LCFS deficits. Fluctuations in the price of LCFS credits or the number of LCFS credits assigned will have a significantly greater effect on the success of livestock waste and dairy farm projects. RINs and LCFS Credit prices have fluctuated during 2021 and into 2022 and will likely continue to be volatile. A significant decline in the value of LCFS credits could adversely affect our business, financial condition, and results of operations.

We have a history of losses and may incur additional losses in the future.

We incurred pre-tax losses in 2018, 2020 and 2021 and in the six months ended June 30, 2022. During 2019, 2020, 2021 and the six months ended June 30, 2022, our results were positively affected by $47.1 million, $19.8 million, $20.7 million, and $0.2 million of AFTC revenue, respectively. We may incur losses in future periods, and we may never sustain profitability, either of which would adversely affect our business, prospects and financial condition and may cause the price of our common stock to fall. Furthermore, historical losses may not be indicative of future losses, and our future losses may be greater than our past losses. In addition, to try to achieve or sustain profitability, we may choose or be forced to take actions that result in material costs or material asset or goodwill impairments. For instance, in the third and fourth quarters of 2017, we recorded significant charges in connection with our former fueling compressor manufacturing business (which we combined with another company's fueling compressor manufacturing business in the CEC Combination (as defined in Note 3 to the Condensed Consolidated Financial Statements)), our closure of certain fueling stations, our determination that certain assets were impaired because of the foregoing, and other actions. We review our assets for impairment whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable, and we perform a goodwill impairment test on an annual basis and between annual tests in certain circumstances, in each case in accordance with applicable accounting guidance and as described in the financial statements and related notes included in this report. Changes to the use of our assets, divestitures, changes to the structure of our business, significant negative industry or economic trends, disruptions to our operations, inability to effectively integrate any acquired businesses, further market capitalization declines, or other similar actions or conditions could result in additional asset impairment or goodwill impairment charges or other adverse consequences, any of which could have material negative effects on our financial condition, our results of operations and the trading price of our common stock.

Our plans for hydrogen and electric vehicle stations will require significant cash investments and management resources and may not meet our expectations.

As operators deploy hydrogen powered vehicles, we plan to modify our fueling stations to reform our RNG, build additional hydrogen stations, and deliver clean hydrogen. Further, we have the capability to add electric charging at our sites, and we believe our RNG can be used to generate clean electricity to power vehicles.

Our plans will require significant cash investments and management resources and may not meet our expectations with respect to additional sales of our vehicle fuels. We have experience constructing hydrogen fueling stations, but such facilities cost significantly more than traditional RNG vehicle fueling stations. In addition, we have not yet added electric charging capability to any of our stations, and the cost of such capability may be significant. We will need to ensure compliance with all applicable regulatory requirements, including obtaining any required permits and land use rights, which could take considerable time and expense and is subject to the risk that government support in certain areas may be discontinued. If we are unable to modify our stations to provide hydrogen or add electric charging to our stations, or if we experience delays in doing so, our stations may be unable to meet our customer demand, which may negatively impact our business, prospects, financial condition, and operating results.

Various manufacturers have announced their plans to bring long-haul Class 8 commercial hydrogen- and battery- powered vehicles to the market. We will, however, be dependent on these manufacturers to succeed in our target markets, and we will have no influence over their activities. See the risks discussed under "*We are dependent on the production of vehicles and engines in our key customer and geographic markets by vehicle and engine manufacturers, over which we have no control*," above and elsewhere in these risk factors.

Increases, decreases and general volatility in oil, gasoline, diesel, natural gas and RNG prices could adversely affect our business.

The prices of RNG, natural gas, crude oil, gasoline and diesel can be volatile and this volatility may continue to increase. Factors that may cause volatility in the prices of RNG, natural gas, crude oil, gasoline and diesel include, among others, changes in supply and availability of crude oil, RNG, natural gas, government regulations, inventory levels, consumer demand, price and availability of alternatives, weather conditions, negative publicity about crude oil or natural gas drilling, production or transportation techniques and methods, worldwide economic, military, health and political conditions, transportation costs and the price of foreign imports. If the prices of crude oil, gasoline and diesel are low or decline, or if the price of RNG or natural gas increases without corresponding increases in the prices of crude oil, gasoline and diesel or Environmental Credits, we may not be able to offer our customers an attractive price for our vehicle fuels, market adoption of our vehicle fuels could be slowed or limited and/or we may be forced to reduce the prices at which we sell our vehicle fuels in order to try to attract new customers or prevent the loss of demand from existing customers. Natural gas and crude oil prices are expected to remain volatile for the near future because of market uncertainties over supply and demand, including due to the state of the world economy, geopolitical conditions, military conflicts such as the war in Ukraine, energy infrastructure and other factors. Fluctuations in natural gas prices affect the cost to us of the natural gas commodity. High natural gas prices adversely affect our operating margins when we cannot pass the increased costs through to our customers. Conversely, lower natural gas prices reduce our revenue when the commodity cost is passed through to our customers.

Pricing conditions may also exacerbate the cost differential between vehicles that use our fuels and gasoline or diesel-powered vehicles, which may lead operators to delay or refrain from purchasing or converting to our vehicle fuels. Generally, vehicles that use our fuels cost more initially than gasoline or diesel-powered vehicles because the components needed for a vehicle to use our fuels add to the vehicle's base cost. Operators then seek to recover the additional base cost over time through a lower cost to use our fuels. Operators may, however, perceive an inability to timely recover these additional initial costs if our vehicle fuels are not available at prices sufficiently lower than gasoline and diesel. Such an outcome could decrease our potential customer base and harm our business prospects.

We face increasing competition from competitors, many of which have far greater resources, experience, customer bases and brand awareness than we have, and we may not be able to compete effectively with these businesses.

The market for vehicle fuels is highly competitive. The biggest competition for our products is gasoline and diesel because most vehicles in our key markets are powered by these fuels. We also compete with suppliers of other alternative vehicle fuels, including renewable diesel, biodiesel, and ethanol, as well as producers and fuelers of alternative vehicles, including hybrid, electric and hydrogen-powered vehicles. Additionally, our stations compete directly with other natural gas fueling stations and indirectly with electric vehicle charging stations and fueling stations for other vehicle fuels.

Many businesses are in the market for RNG and other alternatives for use as vehicle fuel, including alternative vehicle and alternative fuel companies, refuse collectors, industrial gas companies, private equity groups, commodity traders, truck stop and fuel station owners, fuel providers, gas marketers, utilities and their affiliates and other organizations. If the alternative vehicle fuel market grows, the number and type of participants in this market and their level of capital and other commitments to alternative vehicle fuel programs could increase. Many of our competitors have substantially greater experience, customer bases, brand awareness and financial, marketing and other resources than we have. As a result, these competitors may be able to respond more quickly to changes in customer preferences, legal requirements or other industry or regulatory trends; devote greater resources to the development, promotion and sale of their products; adopt more aggressive pricing policies; dedicate more effort to infrastructure and systems development in support of their business or product development activities; implement more robust or creative initiatives to advance consumer acceptance of their products; or exert more influence on the regulatory landscape that affects the vehicle fuels market.

We expect competition to increase in the vehicle fuels market generally. In addition, if the demand for alternative vehicle fuels, including RNG, increases, then we expect competition to also increase. Any such increased competition may reduce our customer base and revenue and may lead to increased pricing pressure, reduced operating margins and fewer expansion opportunities.

NG Advantage may not be successful.

NG Advantage provides "virtual pipelines" to transport CNG by truck from compression facilities to pipeline interconnects and to industrial and commercial customer users that do not have direct access to natural gas pipelines. NG Advantage faces unique risks, including among others: (i) it has a history of net losses and has incurred substantial indebtedness; (ii) NG Advantage will need to raise additional capital, which may not be available, may only be available on onerous terms, or may only be available from the Company; (iii) the labor market for truck drivers is very competitive, which increases NG Advantage's difficulty in meeting its delivery obligations; (iv) NG Advantage often transports CNG in trailers over long distances and these trailers may be involved in accidents; and (v) NG Advantage's CNG trailers may become subject to new or changed regulations that could adversely affect its business. If NG Advantage fails to manage any of these risks, our business, financial condition, liquidity, results of operations, prospects and reputation may be harmed. In addition, we have been a significant source of financing for NG Advantage, consisting of loans of $18.4 million and $12.9 million in the years ended December 31, 2021 and 2020, respectively, and a $5.0 million equity investment in the year ended December 31, 2018. If NG Advantage is not able to obtain financing from external sources, we will need to provide additional debt or equity capital to allow NG Advantage to satisfy its commitments and maintain operations.

Our station construction activities subject us to business and operational risks.

As part of our business activities, we design and construct vehicle fueling stations that we either own and operate ourselves or sell to our customers. These activities require a significant amount of judgment in determining where to build and open fueling stations, including predictions about fuel demand that may not be accurate for any of the locations we target. As a result, we have built stations that we may not open for fueling operations, and we may open stations that fail to generate the volume or profitability levels we anticipate, either or both of which could occur due to a lack of sufficient customer demand at the station locations or for other reasons. For any stations that are completed but unopened, we would have substantial investments in assets that do not produce revenue, and for any stations that are open and underperforming, we may decide to close the stations. We determined to close a number of underperforming stations in the third and fourth quarters of 2017 and recorded impairment charges in connection with these closures and other related actions. As of June 30, 2022, we had 30 nearly completed stations with a carrying amount of $54.2 million that were not open for fueling operations. We do not know when or if these stations will open, and some of these stations are subject to agreements that may expire prior to us being able to open such stations. Closure of these and/or any other stations could result in substantial additional costs and non-cash asset impairments or other charges and could cause the price of our common stock to decline.

We also face many operational challenges in connection with our station design and construction activities. For example, we may not be able to identify suitable locations for the stations we or our customers seek to build. Additionally, even if preferred sites can be located, we may encounter land use or zoning difficulties, problems with utility services, challenges obtaining and retaining required permits and approvals or local resistance, including due to reduced operations of permitting agencies because of the ongoing COVID-19 pandemic, any of which could prevent us or our customers from building new stations on these sites or limit or restrict the use of new or existing stations. Any such difficulties, resistance or limitations or any failure to comply with local permit, land use or zoning requirements could restrict our activities or expose us to fines, reputational damage or other liabilities, which would harm our business and results of operations. In addition, we act as the general contractor and construction manager for new station construction and facility modification projects, and we typically rely on licensed subcontractors to perform the construction work. We may be liable for any damage we or our subcontractors cause or for injuries suffered by our employees or our subcontractors' employees during the course of work on our projects. Additionally, shortages of skilled subcontractor labor could significantly delay a project or otherwise increase our costs. Further, our expected profit from a project is based in part on assumptions about the cost of the project, and cost overruns, delays or other execution issues may, in the case of projects we complete and sell to customers, result in our failure to achieve our expected margins or cover our costs, and in the case of projects we build and own, result in our failure to achieve an acceptable rate of return. If any of these events occur, our business, operating results and liquidity could be negatively affected.

We have significant contracts with government entities, which are subject to unique risks.

We have, and expect to continue to seek, long-term fueling station construction, maintenance and fuel sale contracts with various government bodies, which accounted for 21%, 22%, and 31% of our revenue in 2019, 2020 and 2021, respectively. In addition to normal business risks, including the other risks discussed in these risk factors, our contracts with government entities are often subject to unique risks, some of which are beyond our control. For example, long-term government contracts and related orders are subject to cancellation if adequate appropriations for subsequent performance periods are not made. Further, the termination of funding for a government program supporting any of our government contracts or any other governmental action that results in reduced support for our government contracts could result in the loss of anticipated future revenue attributable to the contract. Moreover, government entities with which we contract are often able to modify, curtail or terminate contracts with us at their convenience and without prior notice, and would only be required to pay for work completed and commitments made at or prior to the time of termination.

In addition, government contracts are frequently awarded only after competitive bidding processes, which are often protracted. In many cases, unsuccessful bidders for government contracts are provided the opportunity to formally protest the contract awards through various agencies or other administrative and judicial channels. The protest process may substantially delay a successful bidder's contract performance, result in cancellation of the contract award entirely and distract management. As a result, we may not be awarded contracts for which we bid, and substantial delays or cancellation of contracts may follow any successful bids as a result of any protests by other bidders. The occurrence of any of these risks would have a material adverse effect on our results of operations and financial condition.

We may from time to time pursue acquisitions, divestitures, investments or other strategic relationships or transactions, which could fail to meet expectations or otherwise harm our business.

We may acquire or invest in other companies or businesses or pursue other strategic transactions or relationships, such as joint ventures, collaborations, divestitures, or other similar arrangements. For example, in 2021 we created joint ventures with each of TotalEnergies and bp to develop and own dairy RNG production projects. These strategic transactions and relationships and any others we may pursue in the future involve numerous risks, any of which could harm our business, performance and liquidity, including, among others, the following: (i) difficulties integrating the operations, personnel, contracts, service providers and technologies of an acquired company or partner; (ii) diversion of financial and management resources from existing operations or alternative acquisition, investment, strategic or other opportunities; (iii) failure to realize the anticipated synergies or other benefits of a transaction or relationship; (iv) risks of entering new customer or geographic markets in which we may have limited or no experience; (v) potential loss of an acquired company's or partner's key employees, customers or vendors in the event of an acquisition or investment, or potential loss of our assets (and their associated revenue streams), employees or customers in the event of a divestiture or other strategic transaction; and (vi) incurrence of substantial costs or debt or equity dilution to fund an acquisition, investment or other transaction or relationship, as well as possible write-offs or impairment charges relating to any businesses we partner with, invest in or acquire.

Our partners may choose to invest in renewable or low carbon vehicle fuels other than RNG.

Our partners, including TotalEnergies, bp and Chevron, may reallocate their resources from RNG to other renewable or low carbon vehicle fuels. Any such action would have a material adverse effect on our plans, results of operations and financial condition.

Our results of operations fluctuate significantly and are difficult to predict.

Our results of operations have historically experienced, and may continue to experience, significant fluctuations as a result of a variety of factors, including, among others, the amount and timing of our vehicle fuel sales, Environmental Credit sales and recognition of government credits, station construction sales, grants and incentives, such as AFTC (for example, we recorded all of the AFTC revenue associated with our vehicle fuel sales made in 2017 during the first quarter of 2018, and we recorded all of the AFTC revenue associated with our vehicles fuel sales made in 2018 and 2019 in the fourth quarter of 2019); fluctuations in commodity, station construction and labor costs; variations in the fair value of certain of our derivative instruments that are recorded in revenue; sales of compressors and other equipment used in RNG production and at fueling stations; the amount and timing of our billing, collections and liability payments; and the other factors described in these risk factors.

Our performance in certain periods has also been affected by transactions or events that have resulted in significant cash or non-cash gains or losses. For example, our results for 2017 were positively affected by gains related to repurchases or retirements of our outstanding convertible debt at a discount and by a gain related to bp, but were also negatively affected by significant charges in connection with our closure of certain fueling stations, the decreased operating performance of our former fueling compressor manufacturing business, our determination of an impairment of assets as a result of the foregoing, and certain other actions. These or other similar gains or losses may not recur, in the same amounts or at all in future periods.

These significant fluctuations in our operating results may render period-to-period comparisons less meaningful, especially given uncertainties related to the COVID-19 pandemic, and investors in our securities should not rely on the results of one period as an indicator of performance in any other period. Additionally, these fluctuations in our operating results could cause our performance in any period to fall below the financial guidance we may have provided to the public or the estimates and projections of the investment community, which could negatively affect the price of our common stock.

Our warranty reserves may not adequately cover our warranty obligations, which could result in unexpected costs.

We provide product warranties with varying terms and durations for the stations we build and sell, and we establish reserves for the estimated liability associated with these warranties. Our warranty reserves are based on historical trends and any specifically identified warranty issues known to us, and the amounts estimated for these reserves could differ materially from the warranty costs we may actually incur. We would be adversely affected by an increase in the rate or volume of warranty claims or the amounts involved in warranty claims, any of which could increase our costs beyond our established reserves and cause our cash position and financial condition to suffer.

Risks Related to Our Indebtedness and Other Capital Resources.

We may need to raise additional capital to continue to fund our business, which could have negative effects and may not be available when needed, on acceptable terms or at all.

We require capital to pay for capital expenditures, operating expenses, any mergers, acquisitions or strategic investments, capital calls related to our joint ventures, transactions or relationships we may pursue, and to make principal and interest payments on our indebtedness. If we cannot fund any of these activities with capital on-hand or cash provided by our operations, we may seek to obtain additional capital from other sources, such as by selling assets or pursuing debt or equity financing.

Asset sales and equity or debt financing may not be available when needed, on terms favorable to us or at all. Any sale of our assets to generate cash proceeds may limit our operational capacity and could limit or eliminate any revenue streams or business plans that are dependent on the sold assets. Any issuances of our common stock or securities convertible into our common stock to raise capital would dilute the ownership interest of our existing stockholders. Any debt financing we may pursue could require us to make significant interest or other payments and to pledge some or all of our assets as security. In addition, higher levels of indebtedness could increase our risk of non-repayment, adversely affect our creditworthiness, and amplify the other risks associated with our existing debt, which are discussed elsewhere in these risk factors. Further, we may incur substantial costs in pursuing any capital-raising transactions, including investment banking, legal and accounting fees. On the other hand, if we are unable to obtain capital in amounts sufficient to fund our obligations, expenses, and strategic initiatives, we could be forced to suspend, delay or curtail our business plans or operating activities or could default on our contractual commitments. Any such outcome could negatively affect our business, performance, liquidity, and prospects.

We may not generate sufficient cash flow from our business to pay our debt.

As of June 30, 2022, we have consolidated indebtedness of $35.4 million, and we may incur additional debt in the future. Our outstanding and any future indebtedness could make us more vulnerable to adverse changes in general U.S. and worldwide economic, regulatory, and competitive conditions, limit our flexibility to plan for or react to changes in our business or industry, place us at a disadvantage compared to our competitors that have less debt, or limit our ability to borrow or otherwise raise additional capital as needed.

Our payments of amounts owed under our various debt instruments will reduce our cash resources available for other purposes, including pursuing strategic initiatives, transactions or other opportunities, satisfying our other commitments, and generally supporting our operations. Moreover, our ability to make these payments depends on our future performance, which is subject to economic, financial, competitive and other factors, including those described in these risk factors, and many of which are beyond our control. Our business may not generate sufficient cash from operations to service our debt.

If we cannot meet our debt obligations from our operating cash flows, we may pursue one or more alternative measures. Any repayment of our debt with equity, however, would dilute the ownership interests of our existing stockholders. Additionally, because the agreements governing much of our existing indebtedness contain minimal restrictions on our ability to incur additional debt and do not require us to maintain financial ratios or specified levels of net worth or liquidity, we may seek capital from other sources to service our debt, such as selling assets, restructuring or refinancing our existing debt or obtaining additional equity or debt financing. Our ability to engage in any of these activities, if we decide to do so, would depend on the capital markets and the state of our industry, business and financial condition at the time, and could also subject us to significant risks, which are discussed elsewhere in these risk factors. Moreover, we may not be able to obtain any additional capital we may pursue on desirable terms, at a desirable time or at all. Any failure to pay our debts when due could result in a default on our debt obligations. In addition, certain of our debt agreements contain restrictive covenants, and any failure by us to comply with these covenants could also cause us to be in default under these agreements.

In the event of any default on our debt obligations, the holders of the indebtedness could, among other things, declare all amounts owed immediately due and payable. Any such declaration could deplete all or a large portion of our available cash flow, and thereby reduce the amount of cash available to pursue our business plans or force us into bankruptcy or liquidation.

Risks Related to Environmental Health and Safety and Governmental and Environmental Regulations

Our business is influenced by environmental, tax and other government regulations, programs and incentives that promote our vehicle fuels, and their modification or repeal could negatively affect our business.

Our business is influenced by federal, state, and local tax credits, rebates, grants and other government programs and incentives that promote the use of our vehicle fuels. These include various government programs that make grant funds available from the purchase of vehicles and construction of fueling stations, as well as the AFTC under which we generate revenue for our vehicle fuel sales. The AFTC expired at the end of 2021. If the AFTC is not extended after 2021, the AFTC would not be available for vehicle fuel sales, and our revenue would be materially adversely affected. Additionally, our business is influenced by laws, rules and regulations that require reductions in carbon emissions and/or the use of renewable fuels, such as the programs under which we generate Environmental Credits.

These programs and regulations, which have the effect of encouraging the use of RNG as a vehicle fuel, could expire or be repealed or amended for a variety of reasons. For example, parties with an interest in gasoline and diesel, electric or other alternative vehicles or vehicle fuels, including lawmakers, regulators, policymakers, environmental or advocacy organizations, producers of alternative vehicles or vehicle fuels, or other powerful groups, may invest significant time and money in efforts to delay, repeal or otherwise negatively influence regulations and programs that promote RNG. Many of these parties have substantially greater resources and influence than we have. Further, changes in federal, state or local political, social or economic conditions, including a lack of legislative focus on these programs and regulations, could result in their modification, delayed adoption or repeal. Any failure to adopt, delay in implementing, expiration, repeal or modification of these programs and regulations, or the adoption of any programs or regulations that encourage the use of other alternative fuels or alternative vehicles over RNG (such as the September 2020 Executive Order or the 2021 Executive Order), would reduce the market for RNG as a vehicle fuel and harm our operating results, liquidity, and financial condition.

For instance, California lawmakers and regulators have implemented various measures designed to increase the use of electric, hydrogen and other zero-emission vehicles, including establishing firm goals for the number of these vehicles operating on state roads by specified dates and enacting various laws and other programs in support of these goals. Although the influence and applicability of these or similar measures on our business remains uncertain, a focus on “zero tailpipe emission” vehicles over vehicles with an overall net carbon negative emissions profile, but with some tailpipe emissions operating on RNG, would adversely affect the market for our fuels.

To benefit from Environmental Credits, RNG projects are required to be registered and are subject to audit.

RNG projects are required to register with the EPA and relevant state regulatory agencies. Further, we qualify our RINs through a voluntary Quality Assurance Plan, which typically takes from three to five months from first injection of RNG into the commercial pipeline system. Delays in obtaining registration, RIN qualification, and any LCFS credit qualification of a new project could delay future revenues from a project and could adversely affect our cash flow. Further, we may make large investments in projects prior to receiving the regulatory approval and RIN qualification. By registering RNG projects with the EPA's voluntary Quality Assurance Plan, we are subject to quarterly third-party audits and semi-annual on-site visits of projects to validate generated RINs and overall compliance with the federal renewable fuel standard. We are also subject to a separate third party's annual attestation review. The Quality Assurance Plan provides a process for RIN owners to follow, for an affirmative defense to civil liability, if used or transferred Quality Assurance Plan verified RINs were invalidly generated. A project's failure to comply could result in remedial action by the EPA, including penalties, fines, retirement of RINs, or termination of the project's registration, any of which could adversely affect our business, financial condition and results of operations.

Our business could be negatively affected by federal or state laws, orders or regulations mandating new or additional limits on GHG emissions, "tailpipe" emissions or internal combustion engines.

Federal or state laws, orders or regulations have been adopted, such as California's AB 32 cap and trade law and the 2021 Executive Order, and may in the future be adopted that impose limits on GHG emissions or otherwise require the adoption of zero-emission electric vehicles. The effects of GHG emission limits on our business are subject to significant uncertainties based on, among other things, the timing of any requirements, the required levels of emission reductions, the nature of any market-based or tax-based mechanisms adopted to facilitate reductions, the relative availability of GHG emission reduction offsets, the development of cost-effective, commercial-scale carbon capture and storage technology and supporting regulations and liability mitigation measures, the range of available compliance alternatives, and our ability to demonstrate that our vehicle fuels qualify as a compliance alternative under any statutory, regulatory, or standards-based organization (such as The World Business Council for Sustainable Development) programs to limit GHG emissions. If our vehicle fuels are not able to meet GHG emission limits or perform as well as other alternative fuels and vehicles, our solutions could be less competitive. Furthermore, additional federal or state taxes could be implemented on "tailpipe" emissions, which would have a negative impact on the cost of our vehicle fuels, as compared to vehicle fuels that do not generate tailpipe emissions. See also the discussion above regarding the Advanced Clean Trucks regulation, the September 2020 Executive Order and the 2021 Executive Order under "*Our success is dependent on the willingness of fleets and other consumers to adopt our vehicle fuels, which may not occur in a timely manner, at expected levels or at all.*"

Our business is subject to a variety of government regulations, which may restrict our operations and result in costs and penalties or otherwise adversely affect our business and ability to compete.

We are subject to a variety of federal, state and local laws and regulations relating to the environment, health and safety, labor and employment, building codes and construction, zoning and land use, the government procurement process, any political activities or lobbying in which we may engage, public reporting and taxation, among others. It is difficult and costly to manage the requirements of every authority having jurisdiction over our various activities and to comply with their varying standards. Many of these laws and regulations are complex, change frequently, may be unclear and difficult to interpret and have become more stringent over time. Any changes to existing regulations, adoption of new regulations, or judicial rulings regarding such regulations, may result in significant additional expense to us or our customers. For example, in June 2020, California passed the Advanced Clean Trucks regulation, which seeks to have all new commercial vehicles sold in California have zero-emissions by 2045, in September 2020, California's Governor issued the September 2020 Executive Order, which seeks to have 100% of medium- and heavy-duty vehicles in California be zero emission by 2045, and in December 2021, President Biden signed the 2021 Executive Order, which seeks to achieve 100% zero-emission vehicle acquisitions by the federal government by 2035. Further, from time to time, as part of the regular evaluation of our operations, including newly acquired or developing operations, we may be subject to compliance audits by regulatory authorities, which may distract management from our revenue-generating activities and involve significant costs and use of other resources. Also, we often need to obtain facility permits or licenses to address, among other things, storm water or wastewater discharges, waste handling and air emissions in connection with our operations, which may subject us to onerous or costly permitting conditions or delays if permits cannot be timely obtained. Our failure to comply with any applicable laws and regulations could result in a variety of administrative, civil and criminal enforcement measures, including, among others, assessment of monetary penalties, imposition of corrective requirements or prohibition from providing services to government entities. If any of these enforcement measures were imposed on us, our business, financial condition, and performance could be negatively affected.

We are subject to various environmental laws and regulations that could impose substantial costs upon us.

Our operations are and will be subject to federal, state and local environmental laws and regulations, including laws relating to the use, handling, storage, disposal of and human exposure to hazardous materials. Moreover, we expect that we will be affected by future amendments to such laws or other new environmental and health and safety laws and regulations which may require us to change our operations, potentially resulting in a material adverse effect on our business, prospects, financial condition, and operating results. These laws can give rise to liability for administrative oversight costs, cleanup costs, property damage, bodily injury, fines, and penalties. Capital and operating expenses needed to comply with environmental laws and regulations can be significant, and violations may result in substantial fines and penalties, third-party damages, suspension of production or a cessation of our operations.

Contamination at properties we own or operate, will own or operate, or formerly owned or operated or to which hazardous substances were sent by us, may result in liability for us under environmental laws and regulations, including, but not limited to, the Comprehensive Environmental Response, Compensation and Liability Act, which can impose liability for the full amount of remediation-related costs without regard to fault, for the investigation and cleanup of contaminated soil and ground water, for impacts to human health and for damages to natural resources. The costs of complying with environmental laws and regulations and any claims concerning noncompliance, or liability with respect to contamination in the future, could have a material adverse effect on our financial condition or operating results. We may face unexpected delays in obtaining the required permits and approvals in connection with our planned RNG production facilities that could require significant time and financial resources and delay our ability to operate these facilities, which would adversely impact our business, prospects, financial condition and operating results.

Our operations entail inherent safety and environmental risks, which may result in substantial liability to us.

Our operations entail inherent safety risks, including risks associated with equipment defects, malfunctions, failures, and misuses. For example, operation of LNG pumps requires special training because of the extremely low temperatures of LNG. Also, LNG tanker trailers and CNG fuel tanks and trailers could rupture if involved in accidents or improper maintenance or installation. Further, improper refueling of vehicles that use our fuels or operation of vehicle fueling stations could result in sudden releases of pressure that could cause explosions. In addition, our operations may result in the venting of methane, a potent GHG. These safety and environmental risks could result in uncontrollable flows of our fuels, fires, explosions, death, or serious injury, any of which may expose us to liability for personal injury, wrongful death, property damage, pollution and other environmental damage. We may incur substantial liability and costs if any such damages are not covered by insurance or are more than policy limits, or if environmental damage causes us to violate applicable GHG emissions or other environmental laws. Additionally, the occurrence of any of these events with respect to our fueling stations or our other operations could materially harm our business and reputation. Moreover, the occurrence of any of these events to any other organization in our vehicle fuel business could harm our industry generally by negatively affecting perceptions about, and adoption levels of, our vehicle fuels.

Risks Related to Our Common Stock

A significant portion of our outstanding common stock is owned or otherwise subject to acquisition by two equityholders, each of which may have interests that differ from the Company's other stockholders and which now or in the future may be able to influence the Company's corporate decisions, including a change of control.

After giving effect to the issuance of the Amazon Warrant, TotalEnergies Marketing Services, SAS ("TMS"), a wholly owned subsidiary of TotalEnergies, owns 42,581,801 shares of our common stock, or 19.2% of our outstanding shares of common stock as of June 30, 2022 (excluding 8,218,910 shares of our common stock that are the subject of a voting agreement, dated May 9, 2018, among TMS, the Company and all of the Company's directors and officers then in office); the Amazon Warrant is immediately exercisable by Amazon Holdings for shares of our common stock representing

4.999% of our outstanding common stock. Subject to vesting of the Amazon Warrant, the Amazon Warrant will be exercisable for up to 19.999% of our outstanding common stock on a fully diluted basis (determined at the time of issuance of the Amazon Warrant), subject to certain anti-dilution provisions, and Amazon Holding's beneficial ownership will initially be contractually limited to the beneficial ownership limitation unless Amazon Holdings gives the Company sixty one (61) days' notice that it is waiving such limitation. In addition, TotalEnergies was granted certain special rights that our other stockholders do not have in connection with its acquisition of this ownership position, including the right to designate two individuals to serve as directors of our Company and a third individual to serve as an observer on certain of our board committees.

TotalEnergies or other large stockholders may be able to influence or control matters requiring approval by our stockholders, including the election of directors, mergers and acquisitions, or other extraordinary transactions. Amazon, through ownership by Amazon Holdings, could become a large stockholder if the Amazon Warrant were to vest further through additional fuel purchases from the Company pursuant to the Fuel Agreement, and Amazon Holdings were to exercise the Amazon Warrant to purchase vested Warrant Shares or Additional Warrant Shares and waive the Beneficial Ownership Limitation. Large stockholders may have interests that differ from other stockholders and may vote or otherwise act in ways with which the Company or other stockholders disagree or that may be adverse to your interests. A concentration of stock ownership may also have the effect of delaying, preventing or deterring a change of control of our Company, which could deprive our stockholders of an opportunity to receive a premium for their shares of our common stock as part of a sale of our Company and could affect the market price of our common stock. Conversely, such a concentration of stock ownership may facilitate a change of control under terms other stockholders may not find favorable or at a time when other stockholders may prefer not to sell.

Sales of our common stock, or the perception that such sales may occur, could cause the market price of our stock to drop significantly, regardless of the state of our business.

All outstanding shares of our common stock are eligible for sale in the public market, subject in certain cases to the requirements of Rule 144 under the Securities Act. Also, shares of our common stock that may be issued upon the exercise, vesting or conversion of our outstanding stock options and restricted stock units may be eligible for sale in the public market, to the extent permitted by Rule 144 and the provisions of the applicable stock option and restricted stock unit agreements or if such shares have been registered under the Securities Act.

Sales of large amounts of our common stock by large stockholders, or the perception that such sales may occur, could cause the market price of our common stock to decline, regardless of the state of the Company's business. Our common stock held by TMS and our common stock underlying the Amazon Warrant may be sold in the public market under Rule 144 or in registered sales or offerings pursuant to registration rights held by each stockholder. For instance, we filed a registration statement with the SEC to cover the resale of the shares of our common stock issued and sold to TMS, which registration statement was declared effective in August 2018. If these shares are sold, or if it is perceived that they may be sold, in the public market, the trading price of our common stock could decline. For instance, in the year ended December 31, 2021, TMS sold 8,274,495 shares of our common stock, which we believe caused downward pressure on the trading price of our common stock.

General Risk Factors

We rely on information technology in our operations, and any material failure, inadequacy, interruption, or security failure of that technology could harm our business.

Increased global IT security threats and more sophisticated and targeted computer crime pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. There have been several recent, highly publicized cases in which organizations of various types and sizes have reported the unauthorized disclosure of customer or other confidential information, as well as cyber incidents involving the dissemination, theft and destruction of corporate information, intellectual property, cash or other valuable assets. There have also been several highly publicized cases in which hackers have requested "ransom" payments in exchange for not disclosing customer or other confidential information or for not disabling the target company's computer or other systems. Implementing security measures designed to prevent, detect, mitigate or correct these or other IT security threats involves significant costs.

Although we have taken steps to protect the security of our information systems and the data maintained in those systems, we have, from time to time, experienced cyberattacks or other cyber incidents that have threatened our data and systems, including malware and computer virus attacks and it is possible that future cyber incidents we may experience may materially and adversely affect our business. We cannot provide assurance that our safety and security measures will prevent our information systems from improper functioning or damage, or the improper access or disclosure of personally identifiable information such as in the event of cyber incidents. Any IT security threats that are successful against our security measures could, depending on their nature and scope, lead to the compromise of confidential information, improper use of our systems and networks, manipulation and destruction of data, operational disruptions, and substantial financial outlays. Further, a cyber incident could occur and persist for an extended period of time without detection, and an investigation of any successful cyber incident would likely require significant time, costs and other resources to complete. We may be required to expend significant financial resources to protect against or to remediate such cyber incidents. In addition, our technology infrastructure and information systems are vulnerable to damage or interruption from natural disasters, power loss and telecommunications failures. Any failure to maintain proper function, security and availability of our information systems and the data maintained in those systems could interrupt our operations, damage our reputation, subject us to liability claims or regulatory penalties, harm our business relationships or increase our security and insurance costs, which could have a material adverse effect on our business, financial condition and results of operations.

The price of our common stock may continue to fluctuate significantly, and you could lose all or part of your investment.

The market price of our common stock has experienced, and may continue to experience, significant volatility. Factors that may cause volatility in the price of our common stock, many of which are beyond our control, include, among others, the following: (i) the factors that may influence the adoption of our vehicle fuels, as discussed elsewhere in these risk factors; (ii) our ability to implement our business plans and initiatives and their anticipated, perceived or actual level of success; (iii) failure to meet or exceed any financial guidance we have provided to the public or the estimates and projections of the investment community; (iv) the market's perception of the success and importance of any of our acquisitions, divestitures, investments or other strategic relationships or transactions; (v) the amount of and timing of sales of, and prices for, Environmental Credits; (vi) actions taken by state or federal governments to mandate or otherwise promote or incentivize alternative vehicles or vehicle fuels over, or to the exclusion of, RNG; (vii) technical factors in the public trading market for our common stock that may produce price movements that may or may not comport with macro, industry or company-specific fundamentals, including, without limitation, the sentiment of retail investors (including as may be expressed on financial trading and other social media sites), the amount and status of short interest in our common stock, access to margin debt, and trading in options and other derivatives on our common stock; (viii) changes in political, regulatory, health, economic and market conditions; and (ix) a change in the trading volume of our common stock.

In addition, the securities markets have from time-to-time experienced significant price and volume fluctuations that are unrelated to the operating performance of particular companies, but which have affected the market prices of these companies' securities. These market fluctuations may also materially and adversely affect the market price of our common stock.

Volatility or declines in the market price of our common stock could have other negative consequences, including, among others, further impairments to our assets (following the asset impairment charges we recorded in the third and fourth quarters of 2017 related to our former fueling compressor manufacturing business and our closure of certain fueling stations), potential impairments to our goodwill and a reduced ability to use our common stock for capital-raising, acquisitions or other purposes. The occurrence of any of these risks could materially and adversely affect our financial condition, results of operations and liquidity and could cause further declines in the market price of our common stock.

Item 2.—Unregistered Sales of Equity Securities and Use of Proceeds

Issuer Purchases of Equity Securities

On March 12, 2020, our Board of Directors approved the Repurchase Program for up to $30.0 million (exclusive of fees and commissions) of our outstanding common stock. On December 7, 2021, our Board of Directors approved an increase in the aggregate purchase amount under the Repurchase Program from $30.0 million to $50.0 million (exclusive of fees and commissions). The Repurchase Program does not have an expiration date, and it may be suspended or discontinued at any time.

The Repurchase Program does not obligate us to acquire any specific number of shares. Repurchases under the Repurchase Program may be effected from time to time through open market purchases, privately negotiated transactions, structured or derivative transactions, including accelerated share repurchase transactions, or other methods of acquiring shares, in each case subject to market conditions, applicable securities laws and other relevant factors. Repurchases may also be made under plans complying with Rule 10b5-1 under the Exchange Act.

The following table summarizes the share repurchase activity during the three months ended June 30, 2022 (in thousands, except share and per share amounts):

Period	Total Number of Shares Purchased	Average Price Paid per Share (a)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares That May Yet Be Purchased Under the Plans or Program
April 1, 2022 through April 30, 2022	—	$ —	—	$ 29,610
May 1, 2022 through May 31, 2022	679,244	4.57	679,244	26,502
June 1, 2022 through June 30, 2022	—	—	—	26,502
Total	679,244	$ 4.57	679,244	$ 26,502

(a) Exclusive of fees and commissions.

Item 3.—Defaults Upon Senior Securities

None.

Item 4.—Mine Safety Disclosures

None.

Item 5.—Other Information

None.

Item 6.—Exhibits

The information required by this Item 6 is set forth on the Exhibit Index that immediately precedes the signature page to this report and is incorporated herein by reference.

EXHIBIT INDEX

Exhibit Number	Description
31.1*	Certification of Andrew J. Littlefair, President and Chief Executive Officer, pursuant to Rule 13a-14(a) or 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of Robert M. Vreeland, Chief Financial Officer, pursuant to Rule 13a-14(a) or 15d-14(a) of the Exchange Act, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Andrew J. Littlefair, President and Chief Executive Officer, and Robert M. Vreeland, Chief Financial Officer, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101*	The following materials from the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2022, formatted in iXBRL (Inline eXtensible Business Reporting Language): (i) Condensed Consolidated Balance Sheets as of December 31, 2021 and June 30, 2022; (ii) Condensed Consolidated Statements of Operations for the Three and Six Months Ended June 30, 2021 and 2022; (iii) Condensed Consolidated Statements of Comprehensive Loss for the Three and Six Months Ended June 30, 2021 and 2022; (iv) Condensed Consolidated Statements of Stockholders' Equity for the Three and Six Months Ended June 30, 2021 and 2022; (v) Condensed Consolidated Statements of Cash Flows for the Six Months Ended June 30, 2021 and 2022; and (vi) Notes to Condensed Consolidated Financial Statements.
104*	Cover Page Interactive Data File (formatted as iXBRL and contained in Exhibit 101).

* Filed herewith.
** Furnished herewith.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CLEAN ENERGY FUELS CORP.

Date: August 4, 2022

By: /s/ ROBERT M. VREELAND

Robert M. Vreeland

Chief Financial Officer

(Principal financial officer and duly authorized to sign on behalf of the registrant)

Exhibit 31.1

Certification

I, Andrew J. Littlefair, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Clean Energy Fuels Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

/s/ ANDREW J. LITTLEFAIR
Andrew J. Littlefair
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

Certification

I, Robert M. Vreeland, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Clean Energy Fuels Corp.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: August 4, 2022

/s/ ROBERT M. VREELAND
Robert M. Vreeland
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32.1

CERTIFICATION REQUIRED BY
SECTION 1350 OF TITLE 18 OF THE UNITED STATES CODE

Each of the undersigned hereby certifies in his capacity as the specified officer of Clean Energy Fuels Corp. (the “Company”), pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that, to the best of his knowledge, the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2022 (the “Report”) fully complies with the requirements of Section 13(a) or 15(d), as applicable, of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and that the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 4, 2022

/s/ ANDREW J. LITTLEFAIR
Andrew J. Littlefair
President and Chief Executive Officer
(Principal Executive Officer)

Date: August 4, 2022

/s/ ROBERT M. VREELAND
Robert M. Vreeland
Chief Financial Officer
(Principal Financial Officer)

A signed original of this written statement required by Section 906 has been provided to the Company and will be retained by the Company and furnished to the Securities and Exchange Commission or its staff on request.