UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-Q

(Mark One)

(Mark One)		
■ QUARTERLY REPORT PURSUANT TO SEC	CTION 13 OR 15(d) OF TH	IE SECURITIES EXCHANGE ACT OF 1934
FOR THE QUAI	RTERLY PERIOD ENDER	March 31, 2023
	OR	
☐ TRANSITION REPORT PURSUANT TO SEC	CTION 13 OR 15(d) OF TH	IE SECURITIES EXCHANGE ACT OF 1934
FOR THE TRANSIT	ION PERIOD FROM	то
Con	nmission File Number: 1-34	1392
	UG POWER IN of registrant as specified in	
Delaware (State or Other Jurisdiction of Incorporation or Organization)		22-3672377 (I.R.S. Employer Identification Number)
	AKER ROAD, LATHAM, Noting Executive Offices, incl	
(Registrant's	(518) 782-7700 s telephone number, includin	g 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, par value \$.01 per share	PLUG	The NASDAQ Capital Market
Indicate by check mark whether the registrant (1) ha Act of 1934 during the preceding 12 months (or for such st subject to such filing requirements for the past 90 days. Ye	horter period that the registra	be filed by Section 13 or 15(d) of the Securities Exchang ant was required to file such reports), and (2) has been
Indicate by check mark whether the registrant has su Rule 405 of Regulation S-T (§232.405 of this chapter) durito submit such files). Yes \boxtimes No \square		Interactive Data File required to be submitted pursuant to (or for such shorter period that the registrant was required
Indicate by check mark whether the registrant is a lacompany, or an emerging growth company. See the definit "emerging growth company" in Rule 12b-2 of the Exchange	ions of "large accelerated file	lerated filer, a non- accelerated filer, smaller reporting er," "accelerated filer," "smaller reporting company," and
Large accelerated filer \boxtimes Accelerated filer \square N	on-accelerated filer Sma	aller reporting company Emerging growth company
If an emerging growth company, indicate by check n complying with any new or revised financial accounting st		
Indicate by check mark whether the registrant is a sh	ell company (as defined in F	tule 12b-2 of the Exchange Act). Yes □ No 🗵

The number of shares of common stock, par value of \$0.01 per share, outstanding as of May 4, 2023 was 600,536,746 shares.

INDEX to FORM 10-Q

	Page
PART I. FINANCIAL INFORMATION	
<u>Item 1 – Interim Condensed Consolidated Financial Statements (Unaudited)</u>	3
Condensed Consolidated Balance Sheets	3
Condensed Consolidated Statements of Operations	4
Condensed Consolidated Statements of Comprehensive Loss	5
Condensed Consolidated Statements of Stockholders' Equity	6
Condensed Consolidated Statements of Cash Flows	7
Notes to Interim Condensed Consolidated Financial Statements	8
Item 2 – Management's Discussion and Analysis of Financial Condition and Results of Operations	35
Item 3 – Quantitative and Qualitative Disclosures About Market Risk	51
Item 4 – Controls and Procedures	51
PART II. OTHER INFORMATION	
Item 1 – Legal Proceedings	52
Item 1A – Risk Factors	52
Item 2 – Unregistered Sales of Equity Securities and Use of Proceeds	54
Item 3 – Defaults Upon Senior Securities	54
Item 4 – Mine Safety Disclosures	54
Item 5 – Other Information	54
Item 6 – Exhibits	55
Signatures	56

PART 1. FINANCIAL INFORMATION

Item 1 — Interim Financial Statements (Unaudited)

Plug Power Inc. and Subsidiaries Condensed Consolidated Balance Sheets (In thousands, except share and per share amounts) (Unaudited)

		March 31, 2023		December 31, 2022
Assets				
Current assets:		474.061	Φ.	(00.620
Cash and cash equivalents	\$	474,861	\$	690,630
Restricted cash		175,978		158,958
Available-for-sale securities, at fair value				
(amortized cost of \$1,045,731 and allowance for credit losses of \$0 at March 31, 2023 and amortized cost of \$1,355,614		1 000 051		1 222 0 42
and allowance for credit losses of \$0 at December 31, 2022		1,028,371		1,332,943
Equity securities		139,911		134,836
Accounts receivable		127,720		129,450
Inventory		775,649		645,636
Contract assets		99,012		62,456
Prepaid expenses and other current assets		155,822		150,389
Total current assets		2,977,324		3,305,298
Restricted cash		722,467		699,756
Property, plant, and equipment, net		874,659		719,793
Right of use assets related to finance leases, net		56,708		53,742
Right of use assets related to operating leases, net		371,472		360,287
Equipment related to power purchase agreements and fuel delivered to customers, net		98,301		89,293
Contract assets		25,418		41,831
Goodwill		249,871		248,607
Intangible assets, net		203,740		207,725
Investments in non-consolidated entities and non-marketable equity securities		67,350		31,250
Other assets		6,783		6,694
	S	5,654,093	\$	5,764,276
Total assets	J.	3,034,093	Ф	3,704,270
Liabilities and Stockholders' Equity				
Current liabilities:				
Accounts payable	S	188,149	\$	191.895
Accrued expenses		167,754		156,430
Deferred revenue and other contract liabilities		137,357		131,813
Operating lease liabilities		52,859		48,861
Finance lease liabilities		8.622		8.149
Finance obligations		63,370		58.925
Current portion of long-term debt		5,228		5,142
Contingent consideration, loss accrual for service contracts, and other current liabilities		54,201		34.060
Total current liabilities		677,540		635,275
Deferred revenue and other contract liabilities		82,793		98,085
Operating lease liabilities		274,940		271,504
Finance lease liabilities		39,404		37,988
Finance obligations		279,444		270,315
Convertible senior notes, net		194,250		193,919
Long-term debt		3,799		3,925
Contingent consideration, loss accrual for service contracts, and other liabilities		180,273		193,051
Total liabilities		1,732,443		1,704,062
Stockholders' equity:				
Common stock, \$0.01 par value per share; 1,500,000,000 shares authorized; Issued (including shares in treasury):				
611.951,626 at March 31, 2023 and 608,421,785 at December 31, 2022		6,120		6,084
Additional paid-in capital		7,360,887		7.297.306
Accumulated other comprehensive loss		(19,034)		(26,004)
Accumulated deficit		(3,327,472)		(3,120,911)
Less common stock in treasury: 18,245,914 at March 31, 2023 and 18,076,127 at December 31, 2022		(98,851)		(96,261)
Total stockholders' equity	_	3.921.650	_	4 060 214
Total liabilities and stockholders' equity	\$	5,654,093	\$	5,764,276
roun nationales and stockholders equity	_	.,,	<u> </u>	.,,=,=,=

Plug Power Inc. and Subsidiaries Condensed Consolidated Statements of Operations (In thousands, except share and per share amounts) (Unaudited)

		Three Months End March 31,		
		2023		2022
Net revenue:				
Sales of equipment, related infrastructure and other	\$	182,094	\$	108,847
Services performed on fuel cell systems and related infrastructure		9,097		8,240
Power purchase agreements		7,937		10,037
Fuel delivered to customers and related equipment		10,142		13,429
Other		1,016		251
Net revenue		210,286		140,804
Cost of revenue:				
Sales of equipment, related infrastructure and other		158,320		88,828
Services performed on fuel cell systems and related infrastructure		12,221		13,875
Provision for loss contracts related to service		6,889		2,048
Power purchase agreements		46,816		31,753
Fuel delivered to customers and related equipment		54,501		39,272
Other		935		377
Total cost of revenue		279,682	_	176,153
Total cost of feverage		219,002		170,133
Gross loss		(69,396)		(35,349)
Closs loss		(09,390)		(33,349)
Operating asymptotics				
Operating expenses:		26.525		20.461
Research and development		26,535		20,461
Selling, general and administrative		104,016		80,890
Impairment of long-lived assets		1,083		
Change in fair value of contingent consideration		8,769		2,461
Total operating expenses		140,403		103,812
Operating loss		(209,799)		(139,161)
Interest income		17,632		2,054
Interest expense		(10,650)		(8,648)
Other expense, net		(4,771)		(1,309)
Realized loss on investments, net		(1)		(847)
Change in fair value of equity securities		5,075		(5,159)
Loss on equity method investments		(5,317)		(3,833)
		(=,==,)	_	(0,000)
Loss before income taxes	\$	(207,831)	\$	(156,903)
Loss before medine taxes	Ψ	(207,031)	Ψ	(130,703)
Income tax benefit		(1,270)		(414)
income tax benefit		(1,270)	-	(414)
	0	(206.561)	•	(156, 400)
Net loss	\$	(206,561)	\$	(156,489)
Net loss per share:				
Basic and diluted	\$	(0.35)	\$	(0.27)
Weighted average number of common stock outstanding	58	9,205,165	5	77,866,983
0 0		,,	_	,,-

Plug Power Inc. and Subsidiaries Condensed Consolidated Statements of Comprehensive Loss (In thousands) (Unaudited)

	Three months ended March 31,			
	2023 202			2022
Net loss	\$	(206,561)	\$	(156,489)
Other comprehensive (loss)/income				
Foreign currency translation (loss)/gain		1,659		(1,850)
Change in net unrealized loss on available-for-sale securities		5,311		(15,080)
Comprehensive loss attributable to the Company, net of tax	\$	(199,591)	\$	(173,419)

Plug Power Inc. and Subsidiaries Condensed Consolidated Statements of Stockholders' Equity (In thousands, except share amounts) (Unaudited)

					Additional		ccumulated Other					Total
	Comn	ion St			Paid-in		mprehensive	Treasi	ıry S		Accumulated	Stockholders'
	Shares		Amount		Capital	In	come (Loss)	Shares		Amount	Deficit	Equity
December 31, 2022	608,421,785	\$	6,084	\$	7,297,306	\$	(26,004)	18,076,127	\$	(96,261)	\$ (3,120,911)	\$ 4,060,214
Net loss											(206,561)	(206,561)
Other comprehensive income	_		_		_		6,970	_		_	_	6,970
Stock-based compensation	228,954		2		43,300		_	_		_	_	43,302
Stock option exercises and issuance of common stock												
upon vesting of restricted stock unit awards	620,250		6		668		_	_		_	_	674
Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock units	_		_		_		_	169,787		(2,590)	_	(2,590)
Exercise of common stock warrants	2,680,637		28		(28)					(),		_
Provision for common stock warrants			_		19,641		_	_		_	_	19,641
March 31, 2023	611,951,626	\$	6,120	\$	7,360,887	\$	(19,034)	18,245,914	\$	(98,851)	\$ (3,327,472)	\$ 3,921,650
				_								
December 31, 2021	594,729,610	\$	5,947	\$	7,070,710	\$	(1,532)	17,074,710	\$	(72,526)	\$ (2,396,903)	\$ 4,605,696
Net loss											(156,489)	(156,489)
Other comprehensive loss	_		_		_		(16,930)	_		_	`	(16,930)
Stock-based compensation	226,221		2		43,384		`	_		_	_	43,386
Stock option exercises and issuance of common stock upon vesting of restricted stock unit awards	253,525		3		288		_	_		_	_	291
Treasury stock acquired from employees upon exercise of stock options and vesting of restricted stock and restricted stock units	_		_		_		_	71,627		(1,465)	_	(1,465)
Provision for common stock warrants	_		_		1,743		_				_	1,743
March 31, 2022	595,209,356	\$	5,952	\$	7,116,125	\$	(18,462)	17,146,337	\$	(73,991)	\$ (2,553,392)	\$ 4,476,232

Plug Power Inc. and Subsidiaries Condensed Consolidated Statements of Cash Flows (In thousands) (Unaudited)

	Three months ended Marc			
		2023		2022
Operating activities				
Net loss	\$	(206,561)	\$	(156,489
Adjustments to reconcile net loss to net cash used in operating activities:				
Depreciation of long-lived assets		9,789		2,842
Amortization of intangible assets		4,959		5,190
Stock-based compensation		43,302		43,386
Amortization of debt issuance costs and discount on convertible senior notes		621		661
Provision for common stock warrants		14,175		1,852
Deferred income tax benefit		(947)		(414
Impairment of long-lived assets		1,083 221		(7.202
Loss/(benefit) on service contracts				(7,297
Fair value adjustment to contingent consideration		8,769		(2,46)
Net realized loss on investments (Accretion)/amortization of premium on available-for-sale securities		(5.045)		84° 2.290
		(5,945)		
Lease origination costs		(2,660)		(1,613
Change in fair value for equity securities		(5,075)		5,159
Loss on equity method investments		5,317		3,833
Changes in operating assets and liabilities that provide (use) cash:		1 720		26 17
Accounts receivable Inventory		1,730 (129,572)		36,170 (63,70)
Contract assets		(14,677)		(03,702
Prepaid expenses and other assets				
Accounts payable, accrued expenses, and other liabilities		(5,522) 13,821		(27,10° (25,09)
Deferred revenue and other contract liabilities				
		(9,748)	_	(28,01
Net cash used in operating activities		(276,919)		(209,91
Investing activities				
Purchases of property, plant and equipment		(168,565)		(78,394
Purchases of equipment related to power purchase agreements and equipment related to fuel delivered to customers		(11,389)		(6,79
Purchase of available-for-sale securities				(114,17)
Proceeds from sales of available-for-sale securities		_		469,563
Proceeds from maturities of available-for-sale securities		315,827		67,430
Purchase of equity securities		_		(4,99)
Net cash paid for acquisitions		_		(26,47)
Cash paid for non-consolidated entities and non-marketable equity securities		(40,077)		(32,25)
Net cash provided by investing activities		95,796		273,91
Financing activities		(2,000)		(2.66)
Payments of contingent consideration		(2,000)		(2,66
Payments of tax withholding on behalf of employees for net stock settlement of stock-based compensation Proceeds from exercise of stock options		(2,590) 674		(1,46
		(330)		(10.24)
Principal payments on long-term debt		27,927		(19,24d 17,27)
Proceeds from finance obligations Principal repayments of finance obligations and finance leases		(16,500)		(12,42)
			_	
Net cash provided by (used in) financing activities		7,181	_	(18,24)
Effect of exchange rate changes on cash		(2,096)		634
(Decrease)/increase in cash and cash equivalents		(215,769)		14,345
Increase in restricted cash		39,731		32,043
Cash, cash equivalents, and restricted cash beginning of period		1,549,344		3,132,19
Cash, cash equivalents, and restricted cash end of period	\$	1,373,306	\$	3,178,582
Supplemental disclosure of cash flow information				
Cash paid for interest, net of capitalized interest of \$2.0 million	\$	7,869	\$	5,731
Summary of non-cash activity Recognition of right of use asset - finance leases	S	4,018	\$	8,07
	Ф	4,018 22,470	Ф	20,070
Recognition of right of use asset - operating leases		22,470		
Net tangible assets acquired in a business combination				56,929
Intangible assets acquired in a business combination		441		60,522 489
Net transfers between inventory and long-lived assets		441		
Accrued purchase of fixed assets, cash to be paid in subsequent period		65,701		6,707

1. Nature of Operations

Plug Power Inc. (the "Company," "Plug," "we" or "our") is facilitating the paradigm shift to an increasingly electrified world by innovating cutting-edge hydrogen and fuel cell solutions. While we continue to develop commercially viable hydrogen and fuel cell product solutions, we have expanded our offerings to support a variety of commercial operations that can be powered with green hydrogen. We provide electrolyzers that allow customers — such as refineries, producers of chemicals, steel, fertilizer and commercial refueling stations — to generate hydrogen on-site. We are focusing our efforts on (a) industrial mobility applications, including electric forklifts and electric industrial vehicles, at multi-shift high volume manufacturing and high throughput distribution sites where we believe our products and services provide a unique combination of productivity, flexibility, and environmental benefits; (b) stationary power systems that will support critical operations, such as data centers, microgrids, and generation facilities, in either a backup power or continuous power role and replace batteries, diesel generators or the grid for telecommunication logistics, transportation, and utility customers; and (c) production of hydrogen. Plug expects to support these products and customers with an ecosystem of vertically integrated products that produce, transport, store and handle, dispense, and use hydrogen for mobility and power applications.

2. Summary of Significant Accounting Policies

Principles of Consolidation

The unaudited interim condensed consolidated financial statements include the financial statements of the Company and its wholly-owned subsidiaries. Intercompany balances and transactions have been eliminated in consolidation. In addition, we include our share of the results of our joint venture with Renault SAS ("Renault") named HyVia SAS, a French société par actions simplifiée ("HyVia"), AccionaPlug S.L. (AccionaPlug), and SK Plug Hyverse Co., Ltd. ("SK Plug Hyverse"), using the equity method based on our economic ownership interest and our ability to exercise significant influence over the operating and financial decisions of HyVia, AccionaPlug and SK Plug Hyverse. Additionally, we consolidate the results of our joint venture with Niloco Hydrogen Holdings LLC, a wholly-owned subsidiary of Olin Corporation ("Olin"), named "Hidrogenii".

Interim Financial Statements

The accompanying unaudited interim condensed consolidated financial statements have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). In the opinion of management, all adjustments, which consist solely of normal recurring adjustments, necessary to present fairly, in accordance with U.S. generally accepted accounting principles ("GAAP"), the financial position, results of operations and cash flows for all periods presented, have been made. The results of operations for the interim periods presented are not necessarily indicative of the results that may be expected for the full year.

Certain information and footnote disclosures normally included in annual consolidated financial statements prepared in accordance with GAAP have been condensed or omitted. These unaudited interim condensed consolidated financial statements should be read in conjunction with the Company's audited consolidated financial statements and notes thereto included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022 (the "2022 Form 10-K").

The information presented in the accompanying unaudited interim condensed consolidated balance sheets as of December 31, 2022 has been derived from the Company's December 31, 2022 audited consolidated financial statements.

The unaudited interim condensed consolidated financial statements contained herein should be read in conjunction with our 2022 Form 10-K.

Recent Accounting Pronouncements

Recently Adopted Accounting Guidance

Other than the adoption of the accounting guidance mentioned in our 2022 Form 10-K, there have been no other significant changes in our reported financial position or results of operations and cash flows resulting from the adoption of new accounting pronouncements.

Recent Accounting Guidance Not Yet Effective

All issued but not yet effective accounting and reporting standards as of March 31, 2023 are either not applicable to the Company or are not expected to have a material impact on the Company.

3. Acquisitions

Alloy Custom Products, LLC and WesMor Cryogenics, LLC

On December 5, 2022, the Company acquired two subsidiaries of Cryogenic Industrial Solutions, LLC, Alloy Custom Products, LLC and WesMor Cryogenics, LLC (collectively, "CIS"). The CIS acquisition is expected to increase the Company's production capabilities for stainless steel and aluminum cryogenic transport truck-mounted cryogenic pressure vessels, cryogenic transport trailers, and other mobile storage containers.

The fair value of consideration paid by the Company in connection with the CIS acquisition was as follows (in thousands):

Cash	\$ 30,700
Due to Cryogenic Industrial Solutions, LLC	500
Plug Power Inc. Common Stock	 6,107
Total consideration	\$ 37,307

The following table summarizes the preliminary allocation of the purchase price to the estimated fair value of the net assets acquired, excluding goodwill (in thousands):

Cash	\$ 267
Accounts receivable	5,038
Inventory	11,120
Prepaid expenses and other assets	464
Property, plant and equipment	3,887
Right of use asset	1,538
Identifiable intangible assets	13,430
Lease liability	(1,562)
Accounts payable, accrued expenses and other liabilities	(3,826)
Deferred revenue	(6,193)
Total net assets acquired, excluding goodwill	\$ 24,163

The preliminary allocation of the purchase price is considered provisional pending the finalization of the valuation for the assets acquired and liabilities assumed and related tax liabilities, if any, in relation to the CIS acquisition. Therefore, the fair values of the assets acquired and liabilities assumed are subject to change as we obtain additional information for valuation assumptions such as market demand for CIS product lines to support forecasted financial data, which will not exceed 12 months from the date of acquisition. There have been no measurement period adjustments recorded for the three months ended March 31, 2023.

The fair value of the tradename totaling \$6.2 million was calculated using the relief from royalty approach which is a variant of the income approach, and was assigned a useful life of fifteen years. The fair value of the customer relationships totaling \$7.1 million was calculated using the multi-period excess earnings method ("MPEEM") approach which is a variant of the income approach, and was assigned a useful life of fifteen years. The basic principle of the MPEEM approach is that a single asset, in isolation, is not capable of generating cash flow for an enterprise. Several assets are brought together and exploited to generate cash flow. The fair value of the non-compete agreements was \$0.2 million with a useful life of five years.

The goodwill was primarily attributed to the value of synergies created with the Company's current and future offerings and the value of the assembled workforce. Goodwill and intangible assets are not deductible for income tax purposes. Goodwill associated with the CIS acquisition was calculated as follows (in thousands):

Consideration paid	\$ 37,307
Less: net assets acquired	(24,163)
Total goodwill recognized	\$ 13,144

The acquisition of CIS contributed \$11.1 million to total consolidated revenue for the three months ended March 31, 2023. The Company determined it immaterial to report net loss for the CIS acquisition for the three months ended March 31, 2023.

Joule Processing LLC

On January 14, 2022, the Company acquired Joule Processing LLC ("Joule"), an engineered modular equipment, process design and procurement company founded in 2009.

The fair value of consideration paid by the Company in connection with the Joule acquisition was as follows (in thousands):

Cash	\$ 28,140
Contingent consideration	41,732
Total consideration	\$ 69,872

The contingent consideration represents the estimated fair value associated with earn-out payments of up to \$130 million that the sellers are eligible to receive in cash or shares of the Company's common stock (at the Company's election). Of the total earnout consideration, \$90 million is related to the achievement of certain financial performance and \$40 million is related to the achievement of certain internal operational milestones.

The following table summarizes the final allocation of the purchase price to the estimated fair value of the net assets acquired, excluding goodwill (in thousands):

Current assets	\$ 2,672
Property, plant and equipment	493
Right of use asset	182
Identifiable intangible assets	60,522
Lease liability	(374)
Current liabilities	(2,612)
Contract liability	(3,818)
Total net assets acquired, excluding goodwill	\$ 57,065

The fair value of the developed technology totaling \$59.2 million included in the identifiable intangible assets was calculated using the MPEEM approach. Therefore, to determine cash flow from the developed technology over its useful life of 15 years, one must deduct the related expenses incurred for the exploitation of other assets used for the generation of overall cash flow. The fair value of the tradename totaling \$0.8 million was calculated using the relief from

royalty approach, which is a variant of the income approach, and was assigned a useful life of four years. The fair value of the non-compete agreements was \$0.5 million with a useful life of six years.

In addition to identifiable intangible assets, the fair value of acquired work in process and finished goods inventory, included in inventory, was estimated based on the estimated selling price less costs to be incurred and a market participant profit rate.

In connection with the acquisition, the Company recorded on its consolidated balance sheet a liability of \$41.7 million representing the fair value of contingent consideration payable, and is recorded in the unaudited interim condensed consolidated balance sheet in contingent consideration, loss accrual for service contracts, and other current liabilities. The fair value of this contingent consideration was \$59.9 million and \$53.2 million as of March 31, 2023 and December 31, 2022, respectively, and as a result \$6.7 million reduction was recorded in the unaudited interim condensed consolidated statement of operations for the three months ended March 31, 2023.

Included in the purchase price consideration are contingent earn-out payments as described above. Due to the nature of the earn-outs, a scenario-based analysis using the probability of achieving the milestone expectations was used to determine the fair value of the contingent consideration. These fair value measurements were based on unobservable inputs and are considered to be level 3 financial instruments.

The goodwill was primarily attributed to the value of synergies created with the Company's current and future offerings and the value of the assembled workforce. Goodwill and intangible assets are not deductible for income tax purposes. Goodwill associated with the Joule acquisition was calculated as follows (in thousands):

Consideration paid	\$ 28,140
Contingent consideration	41,732
Less: net assets acquired	 (57,065)
Total goodwill recognized	\$ 12,807

The acquisition of Joule contributed \$20.7 million and \$1.4 million to total consolidated revenue for the three months ended March 31, 2023 and 2022, respectively. The Company determined it immaterial to report net loss for the Joule acquisition for the three months ended March 31, 2023.

The CIS and Joule acquisitions were not material to our consolidated results of operations or financial position and, therefore, pro forma financial information is not presented.

4. Extended Maintenance Contracts

On a quarterly basis, we evaluate any potential losses related to our extended maintenance contracts for fuel cell systems, related infrastructure and equipment that have been sold. The following table shows the roll forward of balances in the accrual for loss contracts, including changes due to the provision for loss accrual, loss accrual acquired from acquisition, releases to service cost of sales, releases due to the provision for warrants, and foreign currency translation adjustment (in thousands):

	Three months ended March 31, 2023		Year ended December 31, 2022	
Beginning balance	\$ 81,066	\$	89,773	
Provision for loss accrual	6,981		23,295	
Releases to service cost of sales	(6,668)		(35,446)	
Increase/(decrease) to loss accrual related to customer warrants	(92)		3,506	
Foreign currency translation adjustment	25		(62)	
Ending balance	\$ 81,312	\$	81,066	

5. Earnings Per Share

Basic earnings per common stock are computed by dividing net loss attributable to common stockholders by the weighted average number of common stock outstanding during the reporting period. In periods when we have net income, the shares of our common stock subject to the convertible notes outstanding during the period will be included in our diluted earnings per share under the if-converted method. Since the Company is in a net loss position, all common stock equivalents would be considered anti-dilutive and are therefore not included in the determination of diluted earnings per share. Accordingly, basic and diluted loss per share are the same.

The potentially dilutive securities are summarized as follows:

	At March 31,		
	2023	2022	
Stock options outstanding (1)	27,479,533	24,185,000	
Restricted stock and restricted stock units outstanding (2)	5,888,013	5,439,207	
Common stock warrants (3)	85,879,175	80,017,181	
Convertible Senior Notes (4)	39,170,766	39,170,766	
Number of dilutive potential shares of common stock	158,417,487	148,812,154	

- (1) During the three months ended March 31, 2023 and 2022, the Company granted options for 94,550 and 451,500 shares of common stock, respectively.
- (2) During the three months ended March 31, 2023 and 2022, the Company granted 94,550 and 802,500 shares of restricted stock and restricted stock units, respectively.
- (3) In August 2022, the Company issued a warrant to acquire up to 16,000,000 shares of the Company's common stock as part of a transaction agreement with Amazon.com, Inc. ("Amazon"), subject to certain vesting events, as described in Note 12, "Warrant Transaction Agreements." The warrant had not been exercised as of March 31, 2023.
 - In April 2017, the Company issued a warrant to acquire up to 55,286,696 shares of the Company's common stock as part of a transaction agreement with Amazon, subject to certain vesting events, as described in Note 12, "Warrant Transaction Agreements." The warrant had been exercised with respect to 27,600,000 and 24,704,450 shares of the Company's common stock as of March 31, 2023 and 2022, respectively.
 - In July 2017, the Company issued a warrant to acquire up to 55,286,696 shares of the Company's common stock as part of a transaction agreement with Walmart, subject to certain vesting events, as described in Note 12, "Warrant Transaction Agreements." The warrant had been exercised with respect to 13,094,217 shares of the Company's common stock as of March 31, 2023 and 2022, respectively.
- (4) In March 2018, the Company issued \$100.0 million in aggregate principal amount of the 5.5% Convertible Senior Notes due 2023 (the "5.5% Convertible Senior Notes"). In May 2020, the Company repurchased \$66.3 million of the 5.5% Convertible Senior Notes and in the fourth quarter of 2020, \$33.5 million of the 5.5% Convertible Senior Notes were converted into approximately 14.6 million shares of common stock. The remaining \$0.2 million aggregate principal amount of the 5.5% Convertible Senior Notes were converted into 69,808 shares of common stock in January 2021. In May 2020, the Company issued \$212.5 million in aggregate principal amount of the 3.75% Convertible Senior Notes due 2025 (the "3.75% Convertible Senior Notes). There were no conversions for the three months ended March 31, 2023 and 2022.

6. Inventory

Inventory as of March 31, 2023 and December 31, 2022 consisted of the following (in thousands):

	March 31, 2023	December 31, 2022
Raw materials and supplies - production locations	\$ 550,315	\$ 450,432
Raw materials and supplies - customer locations	21,765	18,860
Work-in-process	139,013	112,231
Finished goods	64,556	64,113
Inventory	\$ 775,649	\$ 645,636

As of March 31, 2023 and December 31, 2022, the reserve for excess and obsolete inventory was \$5.4 million.

Inventory is primarily comprised of raw materials, work-in-process, and finished goods. The increase in inventory is primarily due to a combination of new product offerings, as well as increased revenue and orders.

7. Property, Plant and Equipment

Property, plant and equipment at March 31, 2023 and December 31, 2022 consisted of the following (in thousands):

	March 31, 2023		Decem	ber 31, 2022
Land	\$	1,772	\$	1,772
Construction in progress	ϵ	597,456		575,141
Building and leasehold improvements		40,548		21,363
Software, machinery, and equipment	1	88,530		169,633
Property, plant, and equipment	9	928,306		767,909
Less: accumulated depreciation	((53,647)		(48,116)
Property, plant, and equipment, net	\$ 8	374,659	\$	719,793

Construction in progress is primarily comprised of construction of five hydrogen production plants, the Gigafactory in Rochester, NY, and our facility in the Slingerlands, NY. Completed assets are transferred to their respective asset classes, and depreciation begins when an asset is ready for its intended use. Interest on outstanding debt is capitalized during periods of capital asset construction and amortized over the useful lives of the related assets. During the three months ended March 31, 2023 and 2022, the Company capitalized \$2.0 million and \$4.3 million of interest, respectively.

Depreciation expense related to property, plant and equipment was \$5.5 million and \$2.6 million for the three months ended March 31, 2023 and 2022, respectively.

8. Intangible Assets and Goodwill

The gross carrying amount and accumulated amortization of the Company's acquired identifiable intangible assets as of March 31, 2023 were as follows (in thousands):

Amortization Period	Amount		Accumulated Amortization		Total
14 years	\$	104,389	(14,746)	\$	89,643
10 years		29,000	(3,142)		25,858
12 years		103,325	(15,086)		88,239
	\$	236,714	\$ (32,974)	\$ 2	203,740
	Amortization Period 14 years 10 years	Amortization Period 14 years \$ 10 years	Amortization Period Amount 14 years \$ 104,389 10 years 29,000 12 years 103,325	Amortization Period Amount Amount Amortization 14 years \$ 104,389 (14,746) 10 years 29,000 (3,142) 12 years 103,325 (15,086)	Amortization Period Amount Amortization 14 years \$ 104,389 (14,746) \$ 10 years 29,000 (3,142) 12 years 103,325 (15,086)

The gross carrying amount and accumulated amortization of the Company's acquired identifiable intangible assets as of December 31, 2022 were as follows (in thousands):

	Weighted Average Amortization Period	Gross Carrying Amount								 Total
Acquired technology	14 years	\$	104,221	\$	(12,754)	\$ 91,467				
Dry stack electrolyzer technology	10 years		29,000		(2,417)	26,583				
Customer relationships, Non-compete agreements, Backlog &										
Trademark	13 years		102,521		(12,846)	89,675				
		\$	235,742	\$	(28,017)	\$ 207,725				

The change in the gross carrying amount of the acquired technology from December 31, 2022 to March 31, 2023 was primarily due to changes in foreign currency translation.

Amortization expense for acquired identifiable intangible assets for the three months ended March 31, 2023 and 2022 was \$5.0 million and \$5.2 million, respectively.

The estimated amortization expense for subsequent years is as follows (in thousands):

Remainder of 2023	\$ 14,34	7
2024	19,06	9
2025	18,29	4
2026	16,70	2
2027	16,69	4
2028 and thereafter	118,63	4
Total	\$ 203,74	0

Goodwill was \$249.9 million and \$248.6 million as of March 31, 2023 and December 31, 2022, which primarily increased due to foreign currency translation adjustments for goodwill associated with our international subsidiaries.

The change in the carrying amount of goodwill for the three months ended March 31, 2023 was as follows (in thousands):

Beginning balance at December 31, 2022	\$ 248,607
Foreign currency translation adjustment	1,264
Ending balance at March 31, 2023	\$ 249,871

9. Long-Term Debt

In March 2019, the Company entered into a loan and security agreement, as amended, with Generate Lending, LLC, providing for a secured term loan facility in the amount of \$100 million (the "Term Loan Facility"). In December 2022, the Company fully repaid the outstanding balance of the Term Loan Facility.

In June 2020, the Company acquired debt as part of its acquisition of United Hydrogen Group Inc. The outstanding carrying value of the debt was \$9.0 million as of March 31, 2023. The outstanding principal on the debt was \$11.1 million and the unamortized debt discount was \$2.1 million, bearing varying interest rates ranging from 2.2% to 8.3%. The debt is scheduled to mature in 2026. As of March 31, 2023, the principal balance is due at each of the following dates as follows (in thousands):

December 31, 2023	\$ 5,660
December 31, 2024	3,357
December 31, 2025	1,200
December 31, 2026	900
	\$ 11,117

10. Convertible Senior Notes

3.75% Convertible Senior Notes

On May 18, 2020, the Company issued \$200.0 million in aggregate principal amount of 3.75% Convertible Senior Notes due June 1, 2025, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended (the "Securities Act"). On May 29, 2020, the Company issued an additional \$12.5 million in aggregate principal amount of 3.75% Convertible Senior Notes. During the three months ended March 31, 2023, there were no conversions of the 3.75% Convertible Senior Notes.

The 3.75% Convertible Senior Notes consisted of the following (in thousands):

	1	March 31, 2023	December 31, 2022		
Principal amounts:					
Principal	\$	197,278	\$	197,278	
Unamortized debt issuance costs (1)		(3,028)		(3,359)	
Net carrying amount	\$	194,250	\$	193,919	

¹⁾ Included in the unaudited interim condensed consolidated balance sheets within the 3.75% Convertible Senior Notes, net and amortized over the remaining life of the notes using the effective interest rate method.

The following table summarizes the total interest expense and effective interest rate related to the 3.75% Convertible Senior Notes (in thousands, except for the effective interest rate):

	М	arch 31, 2023	March 31, 2022			
Interest expense	\$	1,849	\$	1,849		
Amortization of debt issuance costs		331		316		
Total		2,180		2,165		
Effective interest rate		4.5%		4.5%		

Based on the closing price of the Company's common stock of \$11.72 on March 31, 2023, the if-converted value of the notes was greater than the principal amount. The estimated fair value of the note at March 31, 2023 was approximately \$433.6 million. The fair value estimation was primarily based on an active stock exchange trade on March 29, 2023 of the 3.75% Convertible Senior Notes.

Capped Call

In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (the "3.75% Notes Capped Call") with certain counterparties at a price of \$16.2 million. The 3.75% Notes Capped Call covers, subject to anti-dilution adjustments, the aggregate number of shares of the Company's common stock that underlie the initial 3.75% Convertible Senior Notes and is generally expected to reduce potential dilution to the Company's common stock upon any conversion of the 3.75% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The cap price of the 3.75% Notes Capped Call is initially \$6.7560 per share, which represents a premium of approximately 60% over the last then-reported sale price of the Company's common stock of \$4.11 per share on the date of the transaction and is subject to certain adjustments under the terms of the 3.75% Notes Capped Call. The 3.75% Notes Capped Call becomes exercisable if the conversion option is exercised.

The net cost incurred in connection with the 3.75% Notes Capped Call were recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets. The book value of the 3.75% Notes Capped Call is not remeasured.

Common Stock Forward

In March 2018, the Company issued \$100.0 million in aggregate principal amount of the 5.5% Convertible Senior Notes due on March 15, 2023, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, which have been fully repaid. In connection with the issuance of the 5.5% Convertible Senior Notes, the Company entered into a forward stock purchase transaction (the "Common Stock Forward"), pursuant to which the Company agreed to purchase 14,397,906 shares of its common stock for settlement on or about March 15, 2023. On May 18, 2020, the Company amended and extended the maturity of the Common Stock Forward to June 1, 2025. The number of shares of common stock that the Company will ultimately repurchase under the Common Stock Forward is subject to customary anti-dilution adjustments. The Common Stock Forward is subject to early settlement or settlement with alternative consideration in the event of certain corporate transactions.

The net cost incurred in connection with the Common Stock Forward of \$27.5 million was recorded as an increase in treasury stock in the unaudited interim condensed consolidated balance sheets. The related shares were accounted for as a repurchase of common stock. The book value of the Common Stock Forward is not remeasured.

There were no shares of common stock settled in connection with the Common Stock Forward during the three months ended March 31, 2023 or during the three months ended March 31, 2022.

11. Stockholders' Equity

Common Stock and Warrants

On August 24, 2022, a warrant to purchase up to 16,000,000 shares of common stock was issued in connection with a transaction agreement with Amazon, as discussed in Note 12, "Warrant Transaction Agreements." This warrant is measured at fair value at the time of grant or modification and is classified as an equity instrument on the unaudited interim condensed consolidated balance sheets.

Accumulated Other Comprehensive Income

Accumulated Other Comprehensive Income comprises the following (in thousands):

	Availa	and Losses on ble-For-Sale ecurities		alized Gains and Losses on ilable-For-Sale Securities		Foreign Currency Items		Total
December 31, 2022	\$	(749)	\$	(19,472)	\$	(5,783)	\$	(26,004)
Net current-period other comprehensive loss				5,311		1,659		6,970
March 31, 2023	\$	(749)	\$	(14,161)	\$	(4,124)	\$	(19,034)
December 31, 2021	\$	(150)	\$	(67)	\$	(1,315)	\$	(1,532)
Net current-period other comprehensive loss				(15,080)		(1,850)		(16,930)
March 31, 2022	\$	(150)	\$	(15,147)	\$	(3,165)	\$	(18,462)
			_		_		_	

12. Warrant Transaction Agreements

Amazon Transaction Agreement in 2022

On August 24, 2022, the Company and Amazon entered into a Transaction Agreement (the "2022 Transaction Agreement"), under which the Company concurrently issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, a warrant (the "Amazon Warrant") to acquire up to 16,000,000 shares (the "Amazon Warrant Shares") of the Company's common stock, subject to certain vesting events described below. The Company and Amazon entered into the 2022 Transaction Agreement in connection with a concurrent commercial arrangement under which Amazon agreed to purchase hydrogen fuel from the Company through August 24, 2029.

1,000,000 of the Amazon Warrant Shares vested immediately upon issuance of the Amazon Warrant. 15,000,000 of the Amazon Warrant Shares will vest in multiple tranches over the 7-year term of the Amazon Warrant based on payments made to the Company directly by Amazon or its affiliates, or indirectly through third parties, with 15,000,000 of the Amazon Warrant Shares fully vesting if Amazon-related payments of \$2.1 billion are made in the aggregate. The exercise price for the first 9,000,000 Amazon Warrant Shares is \$22.9841 per share and the fair value on the grant date was \$20.36. The exercise price for the remaining 7,000,000 Amazon Warrant Shares will be an amount per share equal to 90% of the 30-day volume weighted average share price of the Company's common stock as of the final vesting event that results in full vesting of the first 9,000,000 Amazon Warrant Shares. The Amazon Warrant is exercisable through August 24, 2029.

Upon the consummation of certain change of control transactions (as defined in the applicable warrant) prior to the vesting of at least 60% of the aggregate Amazon Warrant Shares, the Amazon Warrant will automatically vest and become exercisable with respect to an additional number of Amazon Warrant Shares such that 60% of the aggregate Amazon Warrant Shares shall have vested. If a change of control transaction is consummated after the vesting of at least 60% of the aggregate Amazon Warrant Shares, then no acceleration of vesting will occur with respect to any of the unvested Amazon Warrant Shares as a result of the transaction. The exercise price and the Amazon Warrant Shares issuable upon exercise of the Amazon Warrant are subject to customary antidilution adjustments.

At March 31, 2023, 1,000,000 of the Amazon Warrant Shares issued pursuant to the 2022 Transaction Agreement had vested upon issuance. The warrant fair value associated with the vested shares of \$20.4 million was capitalized to contract assets in our condensed consolidated unaudited interim financial statements based on the grant date fair value and is subsequently amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. The grant date fair value of tranches 2 and 3 will also be amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. Because the exercise price has yet to be determined, the fair value of tranche 4 will be remeasured at each reporting period end and amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the three months ended March 31, 2023 was \$1.1 million.

The assumptions used to calculate the valuations as of August 24, 2022 and March 31, 2023 are as follows:

	Tranches 1-3 August 24, 2022	Tranche 4 March 31, 2023
Risk-free interest rate	3.15%	3.50%
Volatility	75.00%	75.00%
Expected average term	7 years	4 years
Exercise price	\$22.98	\$10.55
Stock price	\$20.36	\$11.72

Amazon Transaction Agreement in 2017

On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the "2017 Amazon Transaction Agreement"), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a warrant to acquire up to 55,286,696 Amazon Warrant Shares, subject to certain vesting events described below. The Company and Amazon entered into the 2017 Amazon Transaction Agreement in connection with existing commercial agreements between the Company and Amazon with respect to the deployment of the Company's GenKey fuel cell technology at Amazon distribution centers. The vesting of the Amazon Warrant Shares was conditioned upon payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to the existing commercial agreements. At December 31, 2021, all 55,286,696 of the Amazon Warrant Shares had vested.

The warrant had been exercised with respect to 27,600,000 and 24,704,450 shares of the Company's common stock as of March 31, 2023 and December 31, 2022, respectively.

Walmart Transaction Agreement

On July 20, 2017, the Company and Walmart entered into a Transaction Agreement (the "Walmart Transaction Agreement"), pursuant to which the Company agreed to issue to Walmart a warrant (the "Walmart Warrant") to acquire up to 55,286,696 shares of the Company's common stock, subject to certain vesting events (the "Walmart Warrant Shares"). The Company and Walmart entered into the Walmart Transaction Agreement in connection with existing commercial agreements between the Company and Walmart with respect to the deployment of the Company's GenKey fuel cell technology across various Walmart distribution centers. The existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Company's fuel cell technology. The vesting of the warrant shares was conditioned upon payments made by Walmart or its affiliates (directly or indirectly through third parties) pursuant to transactions entered into after January 1, 2017 under existing commercial agreements.

The warrant had been exercised with respect to 13,094,217 shares of the Company's common stock as of March 31, 2023 and December 31, 2022.

At March 31, 2023 and December 31, 2022, 27,643,347 of the Walmart Warrant Shares had vested. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended March 31, 2023 and 2022 was \$12.9 million and \$1.7 million, respectively. During the three months ended March 31, 2023 and 2022, there were no exercises with respect to the Walmart Warrant.

The assumptions used to calculate the valuations of the final tranche of the Walmart Warrant as of March 31, 2023 are as follows:

	March 31, 2023
Risk-free interest rate	3.55%
Volatility	75.00%
Expected average term	3.5 years
Exercise price	\$10.55
Stock price	\$11.72

13. Revenue

Disaggregation of revenue

The following table provides information about disaggregation of revenue (in thousands):

Major products/services lines

	Three months ended March 31,			ded
		2023		2022
Sales of fuel cell systems	\$	28,852	\$	37,528
Sales of hydrogen infrastructure		48,868		27,089
Sales of electrolyzers		40,032		4,059
Sales of engineered equipment		7,753		21,968
Services performed on fuel cell systems and related infrastructure		9,097		8,240
Power Purchase Agreements		7,937		10,037
Fuel delivered to customers and related equipment		10,142		13,429
Sales of cryogenic equipment and other		56,589		18,203
Other		1,016		251
Net revenue	\$	210,286	\$	140,804

Contract balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers (in thousands):

	March 31, 2023	December 31, 2022
Accounts receivable	\$ 127,720	\$ 129,450
Contract assets	124,430	104,287
Deferred revenue and contract liabilities	220,150	229,898

Contract assets relate to contracts for which revenue is recognized on a straight-line basis; however, billings escalate over the life of a contract. Contract assets also include amounts recognized as revenue in advance of billings to customers, which are dependent upon the satisfaction of another performance obligation. These amounts are included in contract assets on the accompanying unaudited interim condensed consolidated balance sheets.

The contract liabilities relate to the advance consideration received from customers for services that will be recognized over time (primarily fuel cell and related infrastructure services) and advance consideration received from customers prior to delivery of products. These amounts are included within deferred revenue and other contract liabilities on the unaudited interim condensed consolidated balance sheets.

Significant changes in the contract assets and the contract liabilities balances during the period are as follows (in thousands):

Contract assets

	ľ	March 31, 2023	D	ecember 31, 2022
Transferred to receivables from contract assets recognized at the beginning of the	' <u></u>			
period	\$	(19,709)	\$	(33,394)
Contract assets related to warrants		5,577		26,455
Revenue recognized and not billed as of the end of the period		34,275		72,469
Net change in contract assets	\$	20,143	\$	65,530

Deferred revenue and contract liabilities

	N	March 31, 2023		ecember 31,
				2022
Increases due to cash received, net of amounts recognized as revenue during the				
period	\$	80,740	\$	200,347
Contract liabilities assumed as part of acquisitions		_		10,011
Revenue recognized that was included in the contract liability balance as of the				
beginning of the period		(90,488)		(163,550)
Net change in deferred revenue and contract liabilities	\$	(9,748)	\$	46,808

Estimated future revenue

The following table includes estimated revenue included in the backlog expected to be recognized in the future (sales of fuel cell systems, equipment, and hydrogen installations are expected to be recognized as revenue within one year; sales of services, Power Purchase Agreements ("PPAs"), and fuel are expected to be recognized as revenue over five to ten years) related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period, including provision for common stock warrants (in thousands):

	March 31, 2023
Sales of fuel cell systems	\$ 53,578
Sales of hydrogen installations and other infrastructure	21,807
Sales of electrolyzers	281,720
Sales of engineered equipment	16,628
Services performed on fuel cell systems and related infrastructure	121,418
Power Purchase Agreements	385,096
Fuel delivered to customers and related equipment	92,470
Sales of cryogenic equipment	121,657
Total estimated future revenue	\$ 1,094,374

Contract costs

Contract costs consist of capitalized commission fees and other expenses related to obtaining or fulfilling a contract. Capitalized contract costs at March 31, 2023 and December 31, 2022 were \$0.6 million.

14. Income Taxes

The Company recorded \$1.3 million and \$0.4 million of income tax benefit for the three months ended March 31, 2023 and 2022, respectively. The Company has not changed its overall conclusion with respect to the need for a valuation allowance against its domestic net deferred tax assets, which remain fully reserved.

The domestic net deferred tax asset generated from the Company's net operating loss has been offset by a full valuation allowance because it is more likely than not that the tax benefits of the net operating loss carry forward will not be realized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

15. Fair Value Measurements

The Company records the fair value of assets and liabilities in accordance with ASC 820, *Fair Value Measurement* ("ASC 820"). ASC 820 defines fair value as the price received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date and in the principal or most advantageous market for that asset or liability. The fair value should be calculated based on assumptions that market participants would use in pricing the asset or liability, not on assumptions specific to the entity.

In addition to defining fair value, ASC 820 expands the disclosure requirements around fair value and establishes a fair value hierarchy for valuation inputs. The hierarchy prioritizes the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels, which is determined by the lowest level input that is significant to the fair value measurement in its entirety.

These levels are:

- Level 1 quoted prices (unadjusted) in active markets for identical assets or liabilities.
- Level 2 quoted prices for similar assets and liabilities in active markets or inputs that are observable for the
 asset or liability, either directly or indirectly through market corroboration, for substantially the full term of the
 financial instrument.

Level 3 — unobservable inputs reflecting management's own assumptions about the inputs used in pricing the
asset or liability at fair value.

Securities reported at fair value utilizing Level 1 inputs represent assets whose fair value is determined based upon observable unadjusted quoted market prices for identical assets in active markets. Level 2 securities represent assets whose fair value is determined using observable market information such as previous day trade prices, quotes from less active markets or quoted prices of securities with similar characteristics. Available-for-sale securities are characterized as Level 2 assets, as their fair values are determined using observable market inputs. Equity securities are characterized as Level 1 assets, as their fair values are determined using active markets for identical assets. There were no transfers between Level 1, Level 2, or Level 3 for the three months ended March 31, 2023.

Financial instruments not recorded at fair value on a recurring basis include equity method investments that have not been remeasured or impaired in the current period, such as our investments in HyVia, AccionaPlug, and SK Plug Hyverse. During the three months ended March 31, 2023, the Company contributed approximately \$40.1 million to HyVia, AccionaPlug and SK Plug Hyverse.

Assets and liabilities measured at fair value on a recurring basis are summarized below (in thousands):

				As of M	1arch 31, 2023			
	C	arrying	Fair			Fair Valu	e Measurements	
	A	mount	 Value		Level 1		Level 2	Level 3
Assets								
Cash equivalents	\$	208,358	\$ 208,358	\$	208,358	\$	_	\$ _
Corporate bonds		163,863	163,863		_		163,863	_
U.S. Treasuries		864,508	864,508		864,508		_	_
Equity securities		139,911	139,911		139,911		_	_
Liabilities								
Contingent consideration		123,473	123,473		_		_	123,473

		As of December 31, 2022								
	- (Carrying		Fair			Fair Valu	ue Measurements	3	
	A	Amount		Value		Level 1		Level 2		Level 3
Assets				<u>.</u>						
Cash equivalents	\$	212,577	\$	212,577	\$	212,577	\$	_	\$	_
Corporate bonds		193,633		193,633		_		193,633		_
U.S. Treasuries		1,139,310		1,139,310		1,139,310		_		_
Equity securities		134,836		134,836		134,836		_		_
Liabilities										
Contingent consideration		116,165		116,165		_		_		116,165

The liabilities measured at fair value on a recurring basis that have unobservable inputs and are therefore categorized as level 3 are related to contingent consideration. The fair value as of March 31, 2023 of \$123.5 million is comprised of \$59.9 million related to the acquisition of Joule, as well as \$63.6 million from the Frames Holding B.V. ("Frames") and Applied Cryo Technologies, Inc. ("Applied Cryo") acquisitions in 2021 and the Giner ELX, Inc. and United Hydrogen Group Inc. acquisition in 2020.

In connection with the Applied Cryo acquisition, the Company recorded on its consolidated balance sheet an initial liability of \$14.0 million representing the fair value of contingent consideration payable, and is recorded in the unaudited interim condensed consolidated balance sheet in contingent consideration, loss accrual for service contracts, and other current liabilities. The fair value of this contingent consideration was \$19.0 million and \$15.9 million as of March 31, 2023 and December 31, 2022, respectively, and as a result a \$3.1 million increase was recorded due to a settlement with the sellers. We expect \$19.0 million to be paid to the sellers in the second quarter of 2023.

In connection with the Frames acquisition, the Company recorded on its consolidated balance sheet a liability of \$29.1 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was \$29.7 million and \$31.0 million as of March 31, 2023 and December 31, 2022, respectively. The change in fair value compared to December 31, 2022 was due to a change in the foreign currency translation, partially offset by an decrease in the liability. The Company recorded an adjustment of \$1.3 million for the three months ended March 31,

2023 in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations.

In connection with the Giner ELX, Inc. acquisition the Company recorded on its consolidated balance sheet a liability of \$16.0 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was \$13.3 million and \$14.5 million as of March 31, 2023 and December 31, 2022, respectively, and as a result, a \$1.3 million decrease was recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations for the three months ended March 31, 2023.

In connection with the United Hydrogen Group Inc. acquisition the Company recorded on its consolidated balance sheet a liability of \$1.1 million representing the fair value of contingent consideration payable. The fair value of this contingent consideration was \$1.6 million and \$1.5 million as of March 31, 2023 and December 31, 2022, respectively, and, as a result, a \$0.1 million increase was recorded in change in fair value of contingent consideration in the unaudited interim condensed consolidated statement of operations for the three months ended March 31, 2023.

In the unaudited interim condensed consolidated balance sheets, contingent consideration is recorded in the contingent consideration, loss accrual for service contracts, and other current liabilities financial statement line item, and is comprised of the following unobservable inputs for the three months ending March 31, 2023:

Financial Instrument	 Fair Value	Valuation Technique	Unobservable Input	Range (weighted average)
		Scenario based		
Contingent Consideration	\$ 87,049	method	Credit spread	15.73% - 15.74%
			Discount rate	19.85% - 20.68%
		Monte carlo		
	11,880	simulation	Credit spread	15.74%
			Discount rate	20.00%-20.30%
			Revenue volatility	45.29%
		Monte carlo		
	24,544	simulation	Credit spread	15.73%
			Revenue volatility	35.7% - 23.1% (35.0%)
			Gross profit volatility	106.7% - 23.2% (60.0%)
	\$ 123,473			

In the unaudited interim condensed consolidated balance sheets, contingent consideration is recorded in the contingent consideration, loss accrual for service contracts, and other current liabilities financial statement line item, and is comprised of the following unobservable inputs for the twelve months ending December 31, 2022:

 Fair Value	Valuation Technique	Unobservable Input	Range (weighted average)
	Scenario based		
\$ 85,269	method	Credit spread	15.73% - 15.74%
		Discount rate	19.85% - 20.68%
	Monte carlo		
11,310	simulation	Credit spread	15.74%
		Discount rate	20.00%-20.30%
		Revenue volatility	45.29%
	Monte carlo		
19,586	simulation	Credit spread	15.73%
		Revenue volatility	35.7% - 23.1% (35.0%)
		Gross profit volatility	106.7% - 23.2% (60.0%)
\$ 116,165			
	11,310 19,586	\$ 85,269 Scenario based method Monte carlo simulation Monte carlo simulation 19,586 Monte carlo simulation	\$ 85,269 Scenario based method Monte carlo 11,310 Simulation Credit spread Discount rate Monte carlo Discount rate Revenue volatility Monte carlo simulation Credit spread Credit spread Credit spread Revenue volatility Gross profit volatility

The change in the carrying amount of Level 3 liabilities for the three month period ended March 31, 2023 was as follows (in thousands):

	Three months ended March 31, 2023	
Beginning balance at December 31, 2022	\$ 116,	,165
Payments	(2,	(000)
Fair value adjustments	8,	,769
Foreign currency translation adjustment		539
Ending balance at March 31, 2023	\$ 123,	,473

16. Investments

The fair values of the Company's investments are based upon prices provided by an independent pricing service provider. Management has assessed and concluded that these prices are reasonable and has not adjusted any prices received from the independent pricing service provider.

The amortized cost, gross unrealized gains and losses, fair value of those investments classified as available-for-sale, and allowance for credit losses at March 31, 2023 are summarized as follows (in thousands):

	<u></u>				Ma	rch 31, 2023		
		Amortized Cost		Gross dized Gains	Unre	Gross ealized Losses	Fair Value	Allowance for Credit Losses
		Cust	Unite	inzeu Gains	UIII	ealized Losses	 value	 leuit Losses
Corporate bonds	\$	169,804	\$	15	\$	(5,956)	\$ 163,863	_
U.S. Treasuries		875,927		106		(11,525)	864,508	_
Total	\$	1,045,731	\$	121	\$	(17,481)	\$ 1,028,371	\$ _

The amortized cost, gross unrealized gains and losses, fair value of those investments classified as available-for-sale, and allowance for credit losses at December 31, 2022 are summarized as follows (in thousands):

			Decei	mber 31, 2022		
	Amortized Cost	Gross lized Gains	Unre	Gross ealized Losses	Fair Value	wance for dit Losses
Corporate bonds	\$ 200,735	\$ 7	\$	(7,109)	\$ 193,633	 _
U.S. Treasuries	1,154,879	111		(15,680)	1,139,310	_
Total	\$ 1,355,614	\$ 118	\$	(22,789)	\$ 1,332,943	\$ _

The following table summarizes the fair value and gross unrealized losses on securities classified as available-forsale, and length of time that the individual securities have been in a continuous loss position as of March 31, 2023 (in thousands):

					March 3	31, 20	23				
	Less than 12 months				12 months	or gr	eater	Total			
	r Value of				Fair Value of	_			air Value of		
	tments with	Gre	oss Unrealized Losses		vestments with realized Losses	Gr	oss Unrealized Losses		estments with ealized Losses	Gr	oss Unrealized Losses
Corporate bonds	\$ 8,794	\$	(226)	\$	141,875	\$	(5,730)	\$	150,669	\$	(5,956)
U.S. Treasuries	24,884		(94)		307,587		(11,431)		332,471		(11,525)
Total available-for-											
sale securities	\$ 33,678	\$	(320)	\$	449,462	\$	(17,161)	\$	483,140	\$	(17,481)

We regularly review available-for-sale securities for declines in fair values that we determine to be credit related. In order to determine whether an allowance for credit losses was required, we considered factors such as whether amounts related to securities have become uncollectible, whether we intend to sell a security, and whether it is more likely than not that we will be required to sell a security prior to recovery. The Company also reviewed the declines in market value

related to our available-for-sale securities and determined that these declines were due to fluctuations in interest rates. As of March 31, 2023, the Company did not have an allowance for credit losses related to available-for-sale securities.

The cost, gross unrealized gains and losses, and fair value of those investments classified as equity securities at March 31, 2023 are summarized as follows (in thousands):

	 March 31, 2023									
		Gross		Gross		Fair				
	 Cost	Unrealized Gains	Unre	alized Losses		Value				
Fixed income mutual funds	\$ 70,257	\$	\$	(2,245)	\$	68,012				
Exchange traded mutual funds	76,000			(4,101)		71,899				
Total	\$ 146,257	\$	- \$	(6,346)	\$	139,911				

The cost, gross unrealized gains and losses, and fair value of those investments classified as equity securities at December 31, 2022 are summarized as follows (in thousands):

	 December 31, 2022								
			Gross		Gross		Fair		
	Cost	Unre	alized Gains	Unre	alized Losses		Value		
Fixed income mutual funds	\$ 70,257	\$		\$	(2,620)	\$	67,637		
Exchange traded mutual funds	 75,999				(8,800)		67,199		
Total	\$ 146,256	\$		\$	(11,420)	\$	134,836		

A summary of the amortized cost and fair value of investments classified as available-for-sale, by contractual maturity, as of March 31, 2023 and December 31, 2022 was as follows (in thousands):

	March 31, 2023					December 31, 2022					
		Amortized		Fair		Amortized		Fair			
Maturity:		Cost		Value		Cost		Value			
Less than 12 months	\$	817,369	\$	810,898	\$	1,045,120	\$	1,039,333			
12 months or greater		228,362		217,473		310,494		293,610			
Total	\$	1,045,731	\$	1,028,371	\$	1,355,614	\$	1,332,943			

Accrued interest income was \$2.4 million and \$3.0 million at March 31, 2023 and December 31, 2022, respectively, and included within the balance for prepaid expenses and other current assets in the unaudited interim condensed consolidated balance sheets.

Equity Method Investments

As of March 31, 2023 and December 31, 2022, the Company accounted for the following investments in the investee's common stock under the equity method, which are included in the investments in non-consolidated entities and non-marketable equity securities on the interim unaudited condensed consolidated balance sheets (amounts in thousands):

		As of March 31, 2023			As of December 31, 2022				
Investee	Formation Date	Common Stock Ownership %	/		Common Stock Ownership %		Carrying Value		
HyVia	Q2 2021	50%	\$	29,722	50%	\$	11,281		
AccionaPlug S.L.	Q4 2021	50%		1,941	50%		2,225		
SK Plug Hyverse	Q1 2022	49%		26,719	49%		8,937		
			\$	58,382		\$	22,443		

17. Operating and Finance Lease Liabilities

As of March 31, 2023, the Company had operating leases, as lessee, primarily associated with sale/leaseback transactions that are partially secured by restricted cash, security deposits and pledged escrows (see also Note 1, "Nature

of Operations") as summarized below. These leases expire over the next one to nine years. Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease.

Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote. At the end of the lease term, the leased assets may be returned to the lessor by the Company, the Company may negotiate with the lessor to purchase the assets at fair market value, or the Company may negotiate with the lessor to renew the lease at market rental rates. No residual value guarantees are contained in the leases. No financial covenants are contained within the lease; however, the lease contains customary operational covenants such as the requirement that the Company properly maintain the leased assets and carry appropriate insurance. The leases include credit support in the form of either cash, collateral or letters of credit. See Note 19, "Commitments and Contingencies" for a description of cash held as security associated with the leases.

The Company has finance leases associated with its property and equipment in Latham, New York and at fueling customer locations. The fair value of this finance obligation approximated the carrying value as of March 31, 2023.

Future minimum lease payments under operating and finance leases (with initial or remaining lease terms in excess of one year) as of March 31, 2023 were as follows (in thousands):

	Op	erating Lease Liability	Finance Lease Liability	Total Lease Liabilities
Remainder of 2023	\$	64,464	\$ 8,712	\$ 73,176
2024		85,832	11,476	97,308
2025		81,119	14,387	95,506
2026		71,088	11,529	82,617
2027		56,978	8,252	65,230
2028 and thereafter		102,913	1,330	104,243
Total future minimum payments		462,394	55,686	518,080
Less imputed interest		(134,595)	(7,660)	(142,255)
Total	\$	327,799	\$ 48,026	\$ 375,825

Rental expense for all operating leases was \$21.9 million and \$14.0 million for the three months ended March 31, 2023 and 2022, respectively.

At March 31, 2023 and December 31, 2022, security deposits associated with sale/leaseback transactions were \$6.0 million and \$5.8 million, respectively, and were included in other assets in the unaudited interim condensed consolidated balance sheets.

At March 31, 2023 and December 31, 2022, the right of use assets associated with finance leases was \$62.4 million and \$58.4 million, respectively. The accumulated depreciation for these right of use assets was \$5.7 million and \$4.7 million at March 31, 2023 and December 31, 2022, respectively.

Other information related to the operating leases are presented in the following table:

	months ended ch 31, 2023	Three months ended March 31, 2022			
Cash payments (in thousands)	\$ 21,648	\$	13,547		
Weighted average remaining lease term (years)	2.66		5.46		
Weighted average discount rate	11.3%		10.9%		

Finance lease costs include amortization of the right of use assets (i.e., depreciation expense) and interest on lease liabilities (i.e., interest and other expense, net in the consolidated statement of operations), and were \$1.1 million and \$0.8 million for the three months ended March 31, 2023, respectively.

18. Finance Obligation

The Company has sold future services to be performed associated with certain sale/leaseback transactions and recorded the balance as a finance obligation. The outstanding balance of this obligation at March 31, 2023 was \$324.9 million, \$59.9 million and \$265.0 million of which was classified as short-term and long-term, respectively, on the accompanying unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2022 was \$312.1 million, \$55.4 million and \$256.6 million of which was classified as short-term and long-term, respectively. The amount is amortized using the effective interest method. Interest expense recorded related to finance obligations for the three months ended March 31, 2023 and 2022 was \$9.2 million and \$6.7 million, respectively. The fair value of this finance obligation approximated the carrying value as of March 31, 2023 and December 31, 2022.

In prior periods, the Company entered into sale/leaseback transactions that were accounted for as financing transactions and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions at March 31, 2023 was \$17.9 million, \$3.5 million and \$14.4 million of which was classified as short-term and long-term, respectively on the accompanying consolidated balance sheet. The outstanding balance of this obligation at December 31, 2022 was \$17.2 million, \$3.5 million and \$13.7 million of which was classified as short-term and long-term, respectively on the accompanying consolidated balance sheets. The fair value of this finance obligation approximated the carrying value as of March 31, 2023 and December 31, 2022.

Future minimum payments under finance obligations notes above as of March 31, 2023 were as follows (in thousands):

	 le of future enue - debt	le/leaseback financings	Total Finance Obligations
Remainder of 2023	\$ 70,471	\$ 3,591	\$ 74,062
2024	93,961	10,589	104,550
2025	88,705	1,686	90,391
2026	71,333	1,686	73,019
2027	54,831	1,686	56,517
2028 and thereafter	44,364	1,955	46,319
Total future minimum payments	423,665	21,193	444,858
Less imputed interest	(98,767)	(3,277)	(102,044)
Total	\$ 324,898	\$ 17,916	\$ 342,814

19. Commitments and Contingencies

Restricted Cash

In connection with certain of the above noted sale/leaseback agreements, cash of \$445.2 million and \$383.7 million was required to be restricted as security as of March 31, 2023 and December 31, 2022, respectively, which

restricted cash will be released over the lease term. As of March 31, 2023 and December 31, 2022, the Company also had certain letters of credit backed by security deposits totaling \$363.2 million and \$379.6 million, respectively, of which \$340.5 million and \$354.0 million are security for the above noted sale/leaseback agreements, respectively, and \$22.7 million and \$25.6 million are customs related letters of credit, respectively.

As of both March 31, 2023 and December 31, 2022, the Company had \$75.5 million held in escrow related to the construction of certain hydrogen plants.

The Company also had \$5.0 million, \$1.2 million, and \$1.8 million of consideration held by our paying agent in connection with the Applied Cryo, Joule, and CIS acquisitions, respectively, reported as restricted cash as of March 31, 2023, with a corresponding accrued liability on the Company's unaudited interim condensed consolidated balance sheet. Additionally, the Company had \$6.5 million and \$10.8 million in restricted cash as collateral resulting from the Frames acquisition as of March 31, 2023 and December 31, 2022, respectively.

Litigation

Legal matters are defended and handled in the ordinary course of business. Liabilities for loss contingencies arising from claims, assessments, litigation, fines, and penalties and other sources are recorded when it is probable that a liability has been incurred and the amount can be reasonably estimated. Legal costs incurred in connection with loss contingencies are expensed as incurred. The Company has not recorded any accruals related to any legal matters.

As previously disclosed, several actions were filed in the U.S. District Courts for the Southern District of New York and for the Central District of California asserting claims under the federal securities laws against the Company and two of its senior officers, Mr. Marsh and Mr. Middleton. On July 22, 2021, the court consolidated those actions into In re Plug Power, Inc. Securities Litigation, No. 1:21-cv-2004, pending in the U.S. District Court for the Southern District of New York (the "Securities Action") and appointed a lead plaintiff. On October 6, 2021, lead plaintiff filed a consolidated amended complaint asserting claims on behalf of a putative class composed of all persons who purchased or otherwise acquired the Company's securities between November 9, 2020 and March 16, 2021 (the "Amended Complaint"). The Amended Complaint asserted a claim against all defendants for alleged violations of Section 10(b) of the Securities Exchange Act of 1934 (the "Exchange Act") and Rule 10b5 promulgated thereunder and a claim under Section 20(a) of the Exchange Act against Mr. Marsh and Mr. Middleton as alleged controlling persons. The Amended Complaint alleged that defendants made "materially false" statements concerning (1) adjusted EBITDA; (2) fuel delivery and research and development expenses; (3) costs related to provision for loss contracts; (4) gross losses; and (5) the effectiveness of internal controls and procedures (the "accounting-related statements"), and that these alleged misstatements caused losses and damages for members of the alleged class. On December 6, 2021, defendants filed a motion to dismiss the Amended Complaint. In an opinion and order entered on September 29, 2022, the court granted defendants' motion to dismiss the Amended Complaint in its entirety but permitted the lead plaintiff to further amend the complaint. On November 21, 2022, the lead plaintiff filed a second amended complaint purporting to assert claims under the same provisions against the same defendants on behalf of the same alleged class of purchasers of the Company's securities (the "Second Amended Complaint"). The Second Amended Complaint largely repeated the allegations in the Amended Complaint but, in addition, alleged that various public statements during the alleged class period were false or misleading because they allegedly failed to disclose the status of discussions and considerations relating to warrants to purchase the Company's common stock that were granted to a customer in connection with a commercial agreement. The defendants filed a motion to dismiss the Second Amended Complaint in its entirety on January 12, 2023.

On March 31, 2021, Junwei Liu, an alleged Company stockholder, derivatively and on behalf of nominal defendant Plug, filed a complaint in the U.S. District Court for the Southern District of New York against certain Company directors and officers (the "Derivative Defendants"), captioned Liu v. Marsh et al., Case No. 1:21-cv-02753 (S.D.N.Y.) (the "Liu Derivative Complaint"). The Liu Derivative Complaint alleges that, between November 9, 2020 and March 1, 2021, the Derivative Defendants "made, or caused the Company to make, materially false and misleading statements concerning Plug Power's business, operations, and prospects" by "issu[ing] positive financial information and optimistic guidance, and made assurances that the Company's internal controls were effective," when, "[i]n reality, the Company's internal controls suffered from material deficiencies that rendered them ineffective." The Liu Derivative Complaint asserts claims for (1) breach of fiduciary duties, (2) unjust enrichment, (3) abuse of control, (4) gross mismanagement, (5) waste

of corporate assets, and (6) contribution under Sections 10(b) and 21D of the Exchange Act (as to the named officer defendants). The Liu Derivative Complaint seeks a judgment "[d]eclaring that Plaintiff may maintain this action on behalf of Plug"; "[d]eclaring that the [Derivative] Defendants have breached and/or aided and abetted the breach of their fiduciary duties"; "awarding to Plug Power the damages sustained by it as a result of the violations" set forth in the Liu Derivative Complaint, "together with pre-judgment and post-judgment interest thereon"; "[d]irecting Plug Power and the [Derivative] Defendants to take all necessary actions to reform and improve Plug Power's corporate governance and internal procedures to comply with applicable laws"; and "[a]warding Plaintiff the costs and disbursements of this action, including reasonable attorneys' and experts' fees, costs, and expenses"; and "[s]uch other and further relief as the [c]ourt may deem just and proper."

On April 5, 2021, alleged Company stockholders Elias Levy and Camerohn X. Withers, derivatively and on behalf of nominal defendant Plug, filed a complaint in the U.S. District Court for the Southern District of New York against the Derivative Defendants named in the Liu Derivative Complaint, captioned Levy et al. v. McNamee et al., Case No. 1:21-cv-02891 (S.D.N.Y.) (the "Levy Derivative Complaint"). The Levy Derivative Complaint alleges that, from November 9, 2020 to April 5, 2021, the Derivative Defendants "breached their duties of loyalty and good faith" by failing to disclose "(1) that the Company would be unable to timely file its 2020 annual report due to delays related to the review of classification of certain costs and the recoverability of the right to use assets with certain leases; (2) that the Company was reasonably likely to report material weaknesses in its internal control over financial reporting; and (3) that, as a result of the foregoing, Defendants' positive statements about the Company's business, operations, and prospects were materially misleading and/or lacked a reasonable basis." The Levy Derivative Complaint asserts claims for (1) breach of fiduciary duty (as to the named director defendants), (2) unjust enrichment (as to certain named director defendants), (3) waste of corporate assets (as to the named director defendants), and (4) violations of Sections 10(b) and 21D of the Exchange Act (as to the named officer defendants). The Levy Derivative Complaint seeks a judgment "declaring that Plaintiffs may maintain this action on behalf of the Company"; finding the Derivative Defendants "liable for breaching their fiduciary duties owed to the Company"; directing the Derivative Defendants "to take all necessary actions to reform and improve the Company's corporate governance, risk management, and internal operating procedures to comply with applicable laws"; "awarding damages to the Company for the harm the Company suffered as a result of Defendants' wrongful conduct"; "awarding damages to the Company for [the named officer Derivative Defendants'] violations of Sections 10(b) and 21D of the Exchange Act"; "awarding Plaintiffs the costs and disbursements of this action, including attorneys', accountants', and experts' fees"; and "awarding such other and further relief as is just and equitable." The Liu Derivative Complaint and the Levy Derivative Complaint have been consolidated in In re Plug Power Derivative Litigation, Lead Case No. 1:21-cv-02753-ER and, by stipulation approved by the Court, the cases have been stayed pending the resolution of the motion to dismiss in the Securities Class action.

On May 13, 2021, alleged Company stockholder Romario St. Clair, derivatively and on behalf of nominal defendant Plug, filed a complaint in the Supreme Court of the State of New York, County of New York against the derivative defendants named in the Liu derivative Complaint, captioned St. Clair v. Plug Power Inc. et al., Index No. 653167/2021 (N.Y. Sup. Ct., N.Y. Cty.)(the "St. Clair Derivative Complaint"). The St. Clair derivative Complaint alleges that, for approximately two years from March 13, 2019 onwards, the company made a number of improper statements that "failed to disclose and misrepresented the following material, adverse facts, which the [derivative] defendants knew, consciously disregarded, or were reckless in not knowing", including: "(a) that the Company was experiencing known but undisclosed material weaknesses in its internal controls over financial reporting; (b) the Company was overstating the carrying amount of certain right of use assets and finance obligations associated with leases; (c) the Company was understating its loss accrual on certain service contracts; (d) the Company would need to take impairment charges relating to certain long-lived assets; (e) the Company was improperly classifying research and development costs versus costs of goods sold; and (f) the Company would be unable to file its annual Report for the 2020 fiscal year due to these errors." The St. Clair Derivative Complaint asserts claims for (1) breach of fiduciary and (2) unjust enrichment. The St. Clair Derivative Complaint seeks a judgment "for the amount of damages sustained by the Company as a result of the defendants' breaches of fiduciary duties and unjust enrichment"; "[d]irecting Plug Power to take all necessary actions to reform and improve its corporate governance and internal procedures to comply with applicable laws"; "[e]xtraordinary equitable and/or injunctive relief as permitted by law, equity, and state statutory provisions"; [a]warding to Plug Power restitution from defendants, and each of them, and ordering disgorgement of all profits, benefits, and other compensation obtained by the defendants"; [a]warding to plaintiff the costs and disbursements of the action, including reasonable attorneys' fees, accountants' and experts' fees, costs, and expenses"; and "[g]ranting such other and further relief as the

[c]ourt deems just and proper." By stipulation approved by the Court, the case has been stayed pending the resolution of the motion to dismiss in the Securities Class action.

On June 13, 2022, alleged Company stockholder Donna Max, derivatively on behalf of the Company as nominal defendant, filed a complaint in the United States District Court for the District of Delaware against the derivative defendants named in the Liu Derivative Complaint, captioned Max v. Marsh, et. al., Case No. 1:22-cv-00781(D. Del.) (the "Max Derivative Complaint"). The Max Derivative Complaint alleges that, for the years 2018, 2019 and 2020, the defendants did not "assure that a reliable system of financial controls was in place and functioning effectively"; "failed to disclose errors in the Company's accounting primarily relating to (i) the reported book value of right of use assets and related finance obligations, (ii) loss accruals for certain service contracts, (iii) the impairment of certain long-lived assets, and (iv) the classification of certain expenses previously included in research and development costs"; and that certain defendants traded Company stock at "artificially inflated stock prices." The Max Derivative Complaint asserts claims for (1) breach of fiduciary against all defendants; (2) breach of fiduciary duty for insider trading against certain defendants; and (3) contribution under Sections 10(b) and 21D of the Exchange Act against certain defendants. The Max Derivative Complaint seeks an award "for the damages sustained by [the Company]" and related relief. By stipulation approved by the Court, the case has been stayed pending the resolution of the motion to dismiss in the Securities Action.

On June 29, 2022, alleged Company stockholder Abbas Khambati, derivatively on behalf of the Company as nominal defendant, filed a complaint in the Court of Chancery in the State of Delaware against the derivative defendants named in the Liu Derivative Complaint and Gerard A. Conway, Jr. and Keith Schmid, captioned *Khambati v. McNamee, et. al.*, C.A. No. 2022-05691(Del. Ch.) (the "Khambati Derivative Complaint"). The Khambati Derivative Complaint alleges that the defendants "deceive[d] the investing public, including stockholders of Plug Power, regarding the Individual Defendants' management of Plug Power's operations and the Company's compliance with the SEC's accounting rules"; "facilitate[d" certain defendants' sales of "their personally held shares while in possession of material, nonpublic information"; and "enhance[d] the Individual Defendants' executive and directorial positions at Plug Power and the profits, power, and prestige that the Individual Defendants enjoyed as a result of holding these positions." The Khambati Derivative Complaint asserts claims for (1) breach of fiduciary; and (2) disgorgement and unjust enrichment. The Khambati Derivative Complaint seeks an award "for the damages sustained by [the Company] as a result of the breaches" alleged or "disgorgement or restitution"; "disgorgement of insider trading profits" and "all profits, benefits and other compensation obtained by [defendants'] insider trading and further profits flowing therefrom"; an order "[d]irecting the Company to take all necessary actions to reform and improve its corporate governance and internal procedures"; and related relief.

On July 19, 2022, alleged Company stockholder Anne D. Graziano, as Trustee of the Anne D. Graziano Revocable Living Trust, derivatively on behalf of the Company as nominal defendant, filed a complaint in the Court of Chancery in the State of Delaware against the derivative defendants named in the Khambati Derivative Complaint, captioned Graziano v. Marsh, et. al., C.A. No. 2022-0629 (Del. Ch.) (the "Graziano Derivative Complaint"). The Graziano Derivative Complaint alleges that the director defendants (i) "either knowingly or recklessly issued or caused the Company to issue the materially false and misleading statements" concerning "certain critical accounting issues"; (ii) "willfully ignored, or recklessly failed to inform themselves of, the obvious problems with the Company's internal controls, practices, and procedures, and failed to make a good faith effort to correct the problems or prevent their recurrence"; (iii) the members of the Audit Committee failed "to prevent, correct, or inform the Board of the issuance of material misstatements and omissions regarding critical accounting issues and the adequacy of the Company's internal controls"; (iv) "received payments, benefits, stock options, and other emoluments by virtue of their membership on the Board and their control of the Company"; (v) violated the Company's Code of Conduct because they knowingly or recklessly engaged in and participated in making and/or causing the Company to make the materially false and misleading statements; and (vi) certain defendants "sold large amounts of Company stock while it was trading at artificially inflated prices." The Graziano Derivative Complaint asserts claims for (1) breach of fiduciary; (2) breach of fiduciary duty against certain defendants for insider trading; (3) unjust enrichment; (4) aiding and abetting breach of fiduciary duty; and (5) waste of corporate assets. The Graziano Derivative Complaint seeks an award of "the amount of damages sustained by the Company"; seeks an order "[d]irecting Plug Power to take all necessary actions to reform and improve its corporate governance and internal procedures to comply with applicable laws and to protect Plug Power and its stockholders from a repeat of the damaging events described herein"; and related relief. The parties to the Graziano Derivative Complaint and Khambati Derivative Complaint have been consolidated in In re Plug Power, Inc. Stockholder Derivative Litigation, Consolidated C.A. No.

2022-0569 and, by stipulation approved by the court, the cases have been stayed pending the resolution of the motion to dismiss in the Securities Action.

On April 12, 2023, an action was filed in the U.S. District Court for the District of Delaware asserting claims under the federal securities laws against the Company and four of its senior officers, Mr. Marsh, Mr. Middleton, Mr. Mindnich, and Mr. Hull, captioned *Melton v. Plug Power Inc et al.*, Case No. 1:23-cv-00409 (D. Del.). The complaint asserts claims on behalf of a putative class composed of all persons who purchased or otherwise acquired the Company's securities between August 9, 2022 and March 1, 2023. The complaint asserted a claim against all defendants for alleged violations of Section 10(b) of the Exchange Act and Rule 10b5 promulgated thereunder and a claim under Section 20(a) of the Exchange Act against Mr. Marsh, Mr. Middleton, Mr. Mindnich, and Mr. Hull as alleged controlling persons. The complaint alleged that defendants made "materially false and/or misleading statements" about the Company's business and operations, including that "the Company was unable to effectively manage its supply chain and product manufacturing, resulting in reduced revenues and margins, increased inventory levels, and several large deals being delayed until at least 2023, among other issues." Under the Private Securities Litigation Reform Act of 1995, applications to serve as lead plaintiff(s) are due to be filed on or before June 12, 2023.

As previously disclosed, two lawsuits were filed against the Company and other companies in the 9th District Court, Rapides Parish, Louisiana, arising from the previously disclosed May 2018 accident involving a forklift powered by the Company's fuel cell at a Procter & Gamble facility in Louisiana. Additional defendants included Structural Composite Industries, Deep South Equipment Company, Air Products and Chemicals Inc., Hyster-Yale Group. Westport Industries and Quality Thermistor, Inc. The first suit, *Lott, et al v. Plug Power, et al,* was filed by a number of individual plaintiffs alleging personal injury claims. Procter & Gamble intervened in that suit to recover workers compensation benefits paid to or for the employees/dependents. Procter & Gamble filed a separate suit for property damage, business interruption. The Company aggressively defended both lawsuits. The Lott *case* was settled in April 2022 on terms that were extremely favorable for the company. An agreement to settle the separate P&G suit was recently reached, also on terms that are extremely favorable for the Company. Both settlements are funded by the Company's commercial liability insurer, and the amounts are substantially below the policy limits.

On May 2, 2023, a lawsuit entitled Jacob Thomas, and JTurbo Engineering & Technology, LLC. v. Joule Processing, LLC. and Plug Power Inc., Case No. 4:23-cv-01615, was filed in the United States District Court for the Southern District of Texas against the Company. The complaint alleges misappropriation of trade secrets under both the federal Defend Trade Secrets Act of 2016, 18 U.S.C. § 1836, and the Texas Uniform Trade Secrets Act, three breach of contract claims, tort claims and a claim for unfair competition under Texas law. The Company finds all allegations to be lacking in substance and merit. As appropriate, the Company intends to vigorously defend itself against the plaintiffs and exercise all recourse available in a court of law.

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to credit risk consist principally of cash, cash equivalents, restricted cash, accounts receivable and marketable securities. Cash and restricted cash are maintained in accounts with financial institutions, which, at times may exceed the Federal depository insurance coverage of \$0.3 million. The Company has not experienced losses on these accounts and management believes, based upon the quality of the financial institutions, that the credit risk with regard to these deposits is not significant. The Company's available-for-sale securities consists primarily of investments in U.S. Treasury securities and short-term high credit quality corporate debt securities. Equity securities are comprised of fixed income and equity market index mutual funds.

Concentrations of credit risk with respect to receivables exist due to the limited number of select customers with whom the Company has commercial sales arrangements. To mitigate credit risk, the Company performs appropriate evaluation of a prospective customer's financial condition.

At March 31, 2023, one customer comprised 10% of the total accounts receivable balance. At December 31, 2022, one customer comprised approximately 24.9% of the total accounts receivable balance.

For purposes of assigning a customer to a sale/leaseback transaction completed with a financial institution, the Company considers the end user of the assets to be the ultimate customer. For the three months ended March 31, 2023, 25.5% of total consolidated revenues were associated with two customers. For the three months ended March 31, 2022, 67.0% of total consolidated revenues were associated with five customers.

20. Employee Benefit Plans

2011 and 2021 Stock Option and Incentive Plan

The Company has issued stock-based awards to employees and members of its Board of Directors (the "Board") consisting of stock options and restricted stock and restricted stock unit awards. The Company accounts for all stock-based awards to employees and members of the Board as compensation costs in the consolidated financial statements based on their fair values measured as of the date of grant. These costs are recognized over the requisite service period. Stock-based compensation costs recognized, excluding the Company's matching contributions of \$3.0 million to the Plug Power Inc. 401(k) Savings & Retirement Plan and quarterly Board compensation, were \$40.2 million and \$40.8 million for the three months ended March 31, 2023 and March 31, 2022, respectively. The methods and assumptions used in the determination of the fair value of stock-based awards are consistent with those described in our 2022 Form 10-K.

The components and classification of stock-based compensation expense, excluding the Company's matching contributions to the Plug Power Inc. 401(k) Savings & Retirement Plan and quarterly Board compensation, were as follows (in thousands):

	Three months ended						
	Ma		March 31, 2022				
Cost of sales	\$	2,677	\$	1,798			
Research and development		2,283		1,722			
Selling, general and administrative		35,221		37,248			
	\$	40,181	\$	40,768			

Option Awards

The Company issues options that are time and performance-based awards. All option awards are determined to be classified as equity awards.

Service Stock Options Awards

The following table reflects the service stock option activity for the three months ended March 31, 2023:

	Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Terms		Aggregate Intrinsic Value	
Options outstanding at December 31, 2022	\$ 12,078,269	\$ 14.34	\$	7.57	\$	42,835
Granted	94,550	15.44				
Exercised	(124,269)	5.43				
Forfeited	(89,017)	22.97				
Options outstanding at March 31, 2023	\$ 11,959,533	\$ 14.38	\$	7.34	\$	38,278
Options exercisable at March 31, 2023	6,879,596	9.71		6.24		37,976
Options unvested at March 31, 2023	\$ 5,079,937	\$ 20.70	\$	8.83	\$	302

The weighted average grant-date fair value of the service stock options granted during the three months ended March 31, 2023 and 2022 was \$10.48 and \$15.34, respectively. The total intrinsic fair value of service stock options exercised during the three months ended March 31, 2023 and 2022 was \$1.3 million and \$1.1 million, respectively. The

total fair value of the service stock options that vested during the three months ended March 31, 2023 and 2022 was approximately \$7.5 million and \$5.6 million, respectively.

Compensation cost associated with service stock options represented approximately \$8.2 million and \$5.9 million of the total share-based payment expense recorded for the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023 and 2022, there was approximately \$51.4 million and \$47.0 million, respectively, of unrecognized compensation cost related to service stock option awards to be recognized over the weighted average remaining period of 1.94 years.

Performance Stock Option Awards

The following table reflects the Performance Stock Option activity for the three month ended March 31, 2023.

	Shares	1	Veighted Average Exercise Price	Weighted Average Remaining Contractual Terms	Aggregate Intrinsic Value
Options outstanding at December 31, 2022	15,520,000	\$	26.87	5.81	\$ _
Options exercisable at December 31, 2022	1,391,000		26.92	5.73	
Options unvested at December 31, 2022	14,129,000	\$	26.86	5.82	\$
Options outstanding at March 31, 2023	15,520,000	\$	26.87	5.57	\$
Options exercisable at March 31, 2023	1,391,000		26.92	5.48	_
Options unvested at March 31, 2023	14,129,000	\$	26.86	5.58	\$ _

There were no performance stock options granted during the three months ended March 31, 2023 or 2022. There were no performance stock options exercised during the three months ended March 31, 2023 or 2022. There were no performance stock options that vested during the three months ended March 31, 2023 or 2022.

As of March 31, 2023, there were 2,782,000 unvested stock options for which the employee requisite service period has not been rendered but are expected to vest. The aggregate intrinsic value of these unvested stock options is \$0 as of March 31, 2023. The weighted average remaining contractual term of these unvested stock options was 5.48 years as of March 31, 2023.

Compensation cost associated with performance stock options represented approximately \$17.4 million and \$25.1 million of the total share-based payment expense recorded for the three months ended March 31, 2023 and 2022, respectively. As of March 31, 2023, there was approximately \$53.1 million of unrecognized compensation cost related to performance stock option awards to be recognized over the weighted average remaining period of 1.63 years.

Restricted Common Stock and Restricted Stock Unit Awards

The Company recorded expense associated with its restricted common stock and restricted stock unit awards of approximately \$14.6 million and \$9.8 million for the three months ended March 31, 2023 and 2022, respectively. Additionally, as of March 31, 2023, there was \$95.5 million of unrecognized compensation cost related to restricted stock and restricted common stock unit awards to be recognized over the weighted average period of 1.98 years. As of March 31, 2022, there was \$83.7 million of unrecognized compensation cost related to restricted common stock and restricted stock unit awards to be recognized over the weighted average period of 2.1 years.

A summary of restricted stock and restricted stock unit activity for the three months ended March 31, 2023 is as follows (in thousands except share amounts):

	Shares	Ave	Weighted rage Grant Date Fair Value	Aggregate Intrinsic Value
Unvested restricted common stock and restricted stock units at December 31, 2022	6,276,376	\$	21.56	\$77,639
Granted	94,550		15.44	_
Vested	(409,431)		32.97	_
Forfeited	(73,482)		22.70	
Unvested restricted common stock and restricted stock units at March 31, 2023	5,888,013	\$	20.65	\$67,968

The weighted average grant-date fair value of the restricted common stock and restricted stock unit awards granted during the three months ended March 31, 2023 and 2022, was \$15.44 and \$23.86, respectively. The total fair value of restricted shares of common stock and restricted stock unit awards that vested for the three months ended March 31, 2023 and 2022 was \$13.5 million and \$3.9 million, respectively.

401(k) Savings & Retirement Plan

The Company issued 219,970 shares of common stock and 96,539 shares of common stock pursuant to the Plug Power Inc. 401(k) Savings & Retirement Plan during the three months ended March 31, 2023 and 2022, respectively.

The Company's expense for this plan was approximately \$3.0 million and \$2.2 million for the three months ended March 31, 2023 and 2022, respectively.

Non-Employee Director Compensation

The Company granted 10,316 shares of common stock and 3,290 shares of common stock to non-employee directors as compensation for the three months ended March 31, 2023 and 2022, respectively. All common stock issued is fully vested at the time of issuance and is valued at fair value on the date of issuance. The Company's share-based compensation expense in connection with non-employee director compensation was approximately \$0.1 million and \$0.1 million for the three months ended March 31, 2023 and 2022, respectively.

21. Accrued Expenses

Accrued expenses at March 31, 2023 and December 31, 2022 consisted of (in thousands):

	1	December 31, 2022		
Accrued payroll and compensation related costs	\$	19,887	\$	18,231
Accrual for capital expenditures		31,346		53,089
Accrued accounts payable		93,532		53,899
Accrued sales and other taxes		9,718		15,112
Accrued interest		2,271		421
Accrued other		11,000		15,678
Total	\$	167,754	\$	156,430

22. Segment Reporting

Our organization is managed from a sales perspective on the basis of "go-to-market" sales channels, emphasizing shared learning across end user applications and common supplier/vendor relationships. These sales channels are structured to serve a range of customers for our products and services. As a result of this structure, we concluded that we

have one operating and reportable segment — the design, development and sale of fuel cells and hydrogen producing equipment. Our chief executive officer was identified as the chief operating decision maker (CODM). All significant operating decisions made by management are largely based upon the analysis of Plug Power Inc. on a total company basis.

		Revenues				Long-Lived Assets as of						
		Three Mo	Ionths Ended			Three Months Ended						
	Mai	rch 31, 2023		March 31, 2022	March 31, 2023			December 31, 2022				
North America	\$	161,807	\$	113,678	\$	1,382,681	\$	1,209,900				
Europe		40,153		_		18,459		13,215				
Asia		3,255		_		_		_				
Other		5,071		27,126		_		_				
Total	\$	210,286	\$	140,804	\$	1,401,140	\$	1,223,115				

23. Subsequent Events

We have evaluated events as of May 9, 2023 and have not identified any subsequent events.

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

The following discussion should be read in conjunction with our accompanying unaudited interim condensed consolidated financial statements and notes thereto included within this Quarterly Report on Form 10-Q, and our audited and notes thereto included in our 2022 Form 10-K. In addition to historical information, this Quarterly Report on Form 10-Q and the following discussion contain statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act, and Section 21E of the Exchange Act. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases, you can identify these statements by forward-looking words such as "believe," "could," "continue," "estimate," "expect," "intend," "may," "should," "will," "would," "plan," "project" or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to:

- the risk that we continue to incur losses and might never achieve or maintain profitability;
- the risk that we will need to raise additional capital to fund our operations and such capital may not be available
 to us;
- the risks associated with global economic uncertainty, including inflationary pressures, fluctuating interest rates, bank failure, and supply chain disruptions;
- the risk that we may not be able to expand our business or manage our future growth effectively;
- the risk that delays in or not completing our product development and hydrogen plant construction goals may adversely affect our revenue and profitability;
- the risk that we may be unable to successfully pursue, integrate, or execute upon our new business ventures.
- the risk of dilution to our stockholders and/or stock price should we need to raise additional capital;
- the risk that our lack of extensive experience in manufacturing and marketing of certain of our products may impact our ability to manufacture and market products on a profitable and large-scale commercial basis;
- the risk that unit orders may not ship, be installed and/or converted to revenue, in whole or in part;
- the risk that a loss of one or more of our major customers, or if one of our major customers delays payment of or is unable to pay its receivables, a material adverse effect could result on our financial condition;
- the risk that a sale or issuance of a significant number of shares of stock could depress the market price of our common stock;
- the risk that our convertible senior notes, if settled in cash, could have a material adverse effect on our financial results:
- the risk that our convertible note hedges may affect the value of our convertible senior notes and our common stock:
- the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability;
- the risk of potential losses related to any product liability claims or contract disputes;
- the risk of loss related to an inability to remediate the material weaknesses identified in internal control over financial reporting as of December 31, 2022 and 2021, or inability to otherwise maintain an effective system of internal control over financial reporting:
- our ability to attract and maintain key personnel;
- the risks related to the use of flammable fuels in our products;
- the risk that pending orders may not convert to purchase orders, in whole or in part;
- the cost and timing of developing, marketing, and selling our products;
- the risks involved with participating in joint ventures, including our ability or inability to execute our strategic growth plan through joint ventures;
- our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers:
- our ability to achieve the forecasted revenue and costs on the sale of our products;
- the cost and availability of fuel and fueling infrastructures for our products;

- the risks, liabilities, and costs related to environmental, health, and safety matters;
- the risk of elimination of government subsidies and economic incentives for alternative energy products;
- market acceptance of our products and services;
- our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution, and servicing, and the supply of key product components;
- the cost and availability of components and parts for our products;
- the risk that possible new tariffs could have a material adverse effect on our business;
- our ability to develop commercially viable products:
- our ability to reduce product and manufacturing costs;
- our ability to successfully market, distribute and service our products and services internationally;
- our ability to improve system reliability for our products;
- competitive factors, such as price competition and competition from other traditional and alternative energy companies;
- our ability to protect our intellectual property;
- the risk of dependency on information technology on our operations and the failure of such technology, including failure to effectively prevent, detect, and recover from security compromises or breaches, including cyber-attacks;
- the cost of complying with current and future federal, state and international governmental regulations;
- the expense and resources associated with being subject to legal proceedings and legal compliance;
- the risks associated with past and potential future acquisitions;
- the risks associated with geopolitical instability, including the conflict between Russia and Ukraine and growing tensions between U.S. and China and neighboring regions; and
- the volatility of our stock price.

The risks included here are not exhaustive, and additional factors could adversely affect our business and financial performance, including factors and risks discussed in the section titled "Risk Factors" included under Part I, Item 1A, in our 2022 Form 10-K and supplemented by Part II, Item 1A of this Quarterly Report on Form 10-Q. Moreover, we operate in a very competitive and rapidly changing environment. New risk factors emerge from time to time, and it is not possible for management to predict all such risk factors, nor can we assess the impact of all such risk factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from these contained in any forward-looking statements. While forward-looking statements reflect our good faith beliefs, they are not guarantees of future performance. These forward-looking statements speak only as of the date on which the statements were made. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this Quarterly Report on Form 10-Q.

References in this Quarterly Report on Form 10-Q to "Plug," the "Company," "we," "our" or "us" refer to Plug Power Inc., including as the context requires, its subsidiaries.

Overview

Plug is facilitating the paradigm shift to an increasingly electrified world by innovating cutting-edge hydrogen and fuel cell solutions. While we continue to develop commercially viable hydrogen and fuel cell product solutions, we have expanded our offerings to support a variety of commercial operations that can be powered with green hydrogen. We provide electrolyzers that allow customers — such as refineries, producers of chemicals, steel, fertilizer and commercial refueling stations — to generate hydrogen on-site. We are focusing our efforts on (a) industrial mobility applications, including electric forklifts and electric industrial vehicles, at multi-shift high volume manufacturing and high throughput distribution sites where we believe our products and services provide a unique combination of productivity, flexibility, and environmental benefits; (b) stationary power systems that will support critical operations, such as data centers, microgrids, and generation facilities, in either a backup power or continuous power role and replace batteries, diesel generators or the grid for telecommunication logistics, transportation, and utility customers; and (c) production of hydrogen. Plug expects to support these products and customers with an ecosystem of vertically integrated products that produce, transport, store and handle, dispense, and use hydrogen for mobility and power applications.

Our current products and services include:

GenDrive: GenDrive is our hydrogen fueled Proton Exchange Membrane ("PEM") fuel cell system, providing power to material handling electric vehicles, including Class 1, 2, 3 and 6 electric forklifts, Automated Guided Vehicles, and ground support equipment.

GenFuel: GenFuel is our liquid hydrogen fueling delivery, generation, storage, and dispensing system.

GenCare: GenCare is our ongoing "Internet of Things"-based maintenance and on-site service program for GenDrive fuel cell systems, GenSure fuel cell systems, GenFuel hydrogen storage and dispensing products and ProGen fuel cell engines.

GenSure: GenSure is our stationary fuel cell solution providing scalable, modular PEM fuel cell power to support the backup and grid-support power requirements of the telecommunications, transportation, and utility sectors; GenSure High Power Fuel Cell Platform will support large scale stationary power and data center markets.

GenKey: GenKey is our vertically integrated "turn-key" solution combining either GenDrive or GenSure fuel cell power with GenFuel fuel and GenCare aftermarket service, offering complete simplicity to customers transitioning to fuel cell power.

ProGen: ProGen is our fuel cell stack and engine technology currently used globally in mobility and stationary fuel cell systems, and as engines in electric delivery vans. This includes Plug's membrane electrode assembly, a critical component of the fuel cell stack used in zero-emission fuel cell electric vehicle engines.

Electrolyzers: The design and implementation of 5 and 10MW electrolyzer systems that are modular, scalable hydrogen generators optimized for clean hydrogen production. Electrolyzers generate hydrogen from water using electricity and a special membrane and "green" hydrogen is generated by using renewable energy inputs, such as solar or wind power.

Liquefaction Systems: Plug's 15 ton-per-day and 30 ton-per-day liquefiers are engineered for high efficiency, reliability, and operational flexibility — providing consistent liquid hydrogen to customers. This design increases plant reliability and availability while minimizing parasitic losses like heat leak and seal gas losses.

Cryogenic Equipment: Engineered equipment including trailers and mobile storage equipment for the distribution of liquified hydrogen, oxygen, argon, nitrogen and other cryogenic gases.

We provide our products and solutions worldwide through our direct sales force, and by leveraging relationships with original equipment manufacturers ("OEMs") and their dealer networks. We are currently targeting Asia, Australia, Europe, Middle East and North America for expansion in adoption. The European Union (the "EU") has rolled out ambitious targets for the hydrogen economy as part of the EU strategy for energy integration and we are seeking to execute on our strategy to become one of the European leaders in the hydrogen economy. This includes a targeted account strategy for material handling, securing strategic partnerships with European OEMs, energy companies, utility leaders and accelerating our electrolyzer business. Our global strategy includes leveraging a network of integrators or contract manufacturers. Additionally, we have a joint venture with Niloco Hydrogen Holdings LLC, a wholly-owned subsidiary of Olin named "Hidrogenii". Plug has been successful with acquisitions, strategic partnerships and joint ventures, and we plan to continue this mix.

Part of our long-term plan includes Plug penetrating the European and Asian hydrogen market, on-road vehicle market, and large-scale stationary market. Plug's formation of joint ventures with HyVia and AccionaPlug in Europe and SK Plug Hyverse in Asia not only support this goal but are expected to provide us with a more global footprint.

We manufacture our commercially viable products in Latham, New York, Rochester, New York, Slingerlands, New York, Houston, Texas, Lafayette, Indiana, and Spokane, Washington, and support liquid hydrogen production and logistics in Charleston, Tennessee and Kingsland, Georgia.

Recent Developments

Cyber-security

In or around March 2023, an unauthorized actor accessed our computer network and executed a ransomware attack, resulting in the encryption of certain of our computer systems, including systems used to store proprietary and confidential data, and exfiltration of limited data sets. Upon detection, we took immediate steps to contain, assess and remediate the incident, including engaging outside legal counsel and external forensic investigators. Necessarily, the Company has incurred costs in addressing the incident, including related to investigation, containment, restoration, and remediation. As a result of the unauthorized access, the Company's employees experienced interruption of access to the internal network, which created temporary disruption of certain internal operations and automated processes. As of the date of the filing of this Quarterly Report on Form 10-Q, the Company has restored the affected systems and throughout this restoration period the Company's business remained fully operational with no material disruption. Based on information available to date, we do not believe the ransomware event has had a material impact on our business.

COVID-19 Update

The COVID-19 pandemic caused significant transportation challenges for global suppliers and while we expect that these challenges will lessen over time, we continue to take proactive steps through our supply chain team to limit the impact of any such challenges on our business and we continue to work closely with our suppliers and transportation vendors to ensure availability of products and implement other cost savings initiatives.

Inflation, Material Availability and Labor Shortages

Most components essential to our business are generally available from multiple sources; however, we believe there are some component suppliers and manufacturing vendors, particularly those that supply materials in very limited supply worldwide, whose loss to us could have a material adverse effect upon our business and financial condition. We are mitigating these potential risks by introducing alternate system architectures that we expect will allow us to diversify our supply chain with multiple fuel cell, electrolyzer stack and air supply component vendors. In addition, we continue to invest in our supply chain to improve its resilience with a focus on automation, dual sourcing of critical components and localized manufacturing when feasible. We are also working closely with these vendors and other key suppliers on coordinated product introduction plans, product and sales forecasting, strategic inventories, and internal and external manufacturing schedules and levels; however, changes to our products designs or incorrect forecasting could present challenges to those strategies despite best efforts in leveraging supplier relationship and capabilities. Recent cost pressures from global energy prices and inflation have negatively impacted access to our key raw materials. In cases where we have single sourced suppliers (typically due to new technology and products) or there have been worldwide shortages due to global demand, we have worked to engineer alternatives in our product design or develop new supply sources while covering short- and medium-term risks with supply contracts, building up inventory, and development partnerships. However, if we, or the industry or economy at large, were to experience a recession and the demand for our product decreases, then we may have a large stock of pre-purchased inventory that could be unused and aging for a period of time.

In January 2023, the Company entered into a strategic partnership with Johnson Matthey Hydrogen Technologies Limited, a subsidiary of Johnson Matthey PLC and a global leader in sustainable technologies ("JM"), pursuant to which JM will supply the Company catalyst coated membrane for use in the production of fuel cells as well as catalysts and membranes for use in the production of electrolyzers. In addition, the Company and JM intend to develop their existing and new technology and commercial products and co-invest in a manufacturing facility in the United States.

Additionally, we have observed an increasingly competitive labor market. Tight labor markets have resulted in labor inflation and longer times to fill open positions. Increased employee turnover, changes in the availability of our

workers as well as labor shortages in our supply chain have resulted in, and could continue to result in, increased costs which could negatively affect our component or raw material purchasing abilities, and, in turn, our financial condition, results of operations, or cash flows.

Results of Operations

Our primary sources of revenue are from sales of fuel cell systems, related infrastructure and equipment, services performed on fuel cell systems and related infrastructure, Power Purchase Agreements (PPAs), and fuel delivered to customers. A certain portion of our sales result from acquisitions in legacy markets, which we are working to transition to renewable solutions. Revenue from sales of fuel cell systems, related infrastructure and equipment represents sales of our GenDrive units, GenSure stationary backup power units, cryogenic stationary and on road storage, electrolyzers and hydrogen fueling infrastructure. Revenue from services performed on fuel cell systems and related infrastructure represents revenue earned on our service and maintenance contracts and sales of spare parts. Revenue from PPAs primarily represents payments received from customers who make monthly payments to access the Company's GenKey solution. Revenue associated with fuel delivered to customers represents the sale of hydrogen to customers that has been purchased by the Company from a third party or generated on site.

Provision for Common Stock Warrants

On August 24, 2022, the Company and Amazon entered into the 2022 Transaction Agreement, under which the Company concurrently issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, the Amazon Warrant, to acquire the Amazon Warrant Shares, subject to certain vesting events described below. The Company and Amazon entered into the 2022 Transaction Agreement in connection with a concurrent commercial arrangement under which Amazon agreed to purchase hydrogen fuel from the Company through August 24, 2029.

In 2017, in separate transactions, the Company issued to each of Amazon.com NV Investment Holdings LLC and Walmart, Inc. ("Walmart") warrants to purchase shares of the Company's common stock. The Company recorded a portion of the estimated fair value of the warrants as a reduction of revenue based upon the projected number of shares of common stock expected to vest under the warrants, the proportion of purchases by Amazon, Walmart and their affiliates within the period relative to the aggregate purchase levels required for vesting of the respective warrants, and the then-current fair value of the warrants. For the third tranche of the shares under Walmart's warrant, the exercise price will be determined once the second tranche vests. For the third tranche of the Amazon Warrant Shares, see below for the exercise price and measurement dates used.

The amount of provision for common stock warrants recorded as a reduction of revenue for the three months ended March 31, 2023 and 2022, respectively, is shown in the table below (in thousands):

	Three months ended March 31,			ed
		2023		2022
Sales of fuel cell systems, related infrastructure and equipment	\$	(434)	\$	(17)
Services performed on fuel cell systems and related infrastructure		(374)		(150)
Power purchase agreements		(7,185)		(974)
Fuel delivered to customers		(6,182)		(711)
Total	\$	(14,175)	\$	(1,852)

Net revenue, cost of revenue, gross profit (loss) and gross margin (loss) percentage for the three months ended March 31, 2023 and 2022 were as follows (in thousands):

		Three Months Ended March 31,					
	N	et Revenue		Cost of Revenue	P	Gross rofit/(Loss)	Gross Margin
For the period ended March 31, 2023:							
Sales of equipment, related infrastructure and other	\$	182,094	\$	158,320	\$	23,774	13.1 %
Services performed on fuel cell systems and related							
infrastructure		9,097		12,221		(3,124)	(34.3)%
Provision for loss contracts related to service				6,889		(6,889)	N/A
Power purchase agreements		7,937		46,816		(38,879)	(489.8)%
Fuel delivered to customers and related equipment		10,142		54,501		(44,359)	(437.4)%
Other		1,016		935		81	8.0 %
Total	\$	210,286	\$	279,682	\$	(69,396)	(33.0)%
For the period ended March 31, 2022:							
Sales of equipment, related infrastructure and other	\$	108,847	\$	88,828	\$	20,019	18.4 %
Services performed on fuel cell systems and related							
infrastructure		8,240		13,875		(5,635)	(68.4)%
Provision for loss contracts related to service		_		2,048		(2,048)	N/A
Power purchase agreements		10,037		31,753		(21,716)	(216.4)%
Fuel delivered to customers and related equipment		13,429		39,272		(25,843)	(192.5)%
Other		251		377		(126)	(50.2)%
Total	\$	140,804	\$	176,153	\$	(35,349)	(25.1)%

Net Revenue

Revenue - sales of equipment, related infrastructure and other. Revenue from sales of equipment, related infrastructure and other represents revenue from the sale of our fuel cells, such as GenDrive units and GenSure stationary backup power units, as well as hydrogen fueling infrastructure referred to at the site level as hydrogen installations, electrolyzer stacks and systems, and other equipment such as liquefiers and cryogenic storage equipment. Revenue from sales of equipment, related infrastructure and other for the three months ended March 31, 2023 increased \$73.2 million, or 67.3%, to \$182.1 million from \$108.9 million for the three months ended March 31, 2022 primarily due to increases in revenue related to hydrogen site installations, liquefiers, cryogenic equipment, and electrolyzer stacks and systems. The increase in hydrogen infrastructure revenue of \$21.8 million was due to 14 hydrogen site installations for the three months ended March 31, 2023 compared to seven for the three months ended March 31, 2022. The increase in the revenue related to cryogenic storage equipment and liquefiers of \$38.4 million was due to an increase in sales of liquefiers, as well as an increase in revenue of \$11.1 million due to the acquisition of CIS in which there was no revenue recognized in the first quarter of 2022. Revenue related to electrolyzers increased \$36.0 million, which was due to increased volume of 62 one megawatt equivalent units sold for the three months ended March 31, 2023 compared to 2 one megawatt equivalent units sold for the three months ended March 31, 2022. Partially offsetting these increases was a decrease in revenue related to GenDrives of \$8.3 million, as the number of units decreased from 1,229 for the three months ended March 31, 2022 to 1,035 for the three months ended March 31, 2023 due to timing of site deployments, as well as a decrease of \$14.2 million related to the sales of engineered oil and gas equipment from an acquisition that are not expected to continue beyond current commitments. Additionally, there was a provision for common stock warrants of \$0.4 million and \$17 thousand for the three months ended March 31, 2023 and 2022, respectively.

Revenue – services performed on fuel cell systems and related infrastructure. Revenue from services performed on fuel cell systems and related infrastructure represents revenue earned primarily on our service and maintenance contracts, as well as sales of spare parts. At March 31, 2023, there were 20,154 fuel cell units and 95 hydrogen installations under extended maintenance contracts, an increase from 19,409 fuel cell units and 84 hydrogen installations at March 31,

2022. Revenue from services performed on fuel cell systems and related infrastructure for the three months ended March 31, 2023 increased \$0.9 million, or 10.4%, to \$9.1 million as compared to \$8.2 million for the three months ended March 31, 2022. The increase in revenue from services performed on fuel cell systems and related infrastructure for the three months ended March 31, 2023 compared to 2022 was primarily related to our expanding customer base and growth within our current customer base.

Revenue – Power Purchase Agreements. Revenue from PPAs represents payments received from customers for power generated through the provision of equipment and service. At March 31, 2023, there were 117 GenKey sites associated with PPAs, as compared to 77 at March 31, 2022. Revenue from PPAs for the three months ended March 31, 2023 decreased \$2.1 million, or 20.9%, to \$7.9 million from \$10.0 million for the three months ended March 31, 2022. The decrease in revenue was primarily due to an increase in provision for common stock warrants, which went from \$1.0 million for the three months ended March 31, 2022 to \$7.2 million for the three months ended March 31, 2023. Partially offsetting the increase in provision for common stock warrants was an increase in revenue from PPAs for the three months ended March 31, 2023 as compared to the three months ended March 31, 2022 primarily attributable to the new sites for existing customers and new customers accessing the PPA solution. All of the new PPA sites in the first quarter of 2023 were not deployed until late in the quarter; therefore, the full impact on revenue has yet to be realized.

Revenue – fuel delivered to customers and related equipment. Revenue associated with fuel delivered to customers and related equipment represents the sale of hydrogen to customers that has been purchased by the Company from a third party or generated on site. Revenue associated with fuel delivered to customers for the three months ended March 31, 2023 decreased \$3.3 million, or 24.5%, to \$10.1 million from \$13.4 million for the three months ended March 31, 2022. The decrease in revenue was primarily due to an increase in provision for common stock warrants, which went from \$0.7 million for the three months ended March 31, 2022 to \$6.2 million for the three months ended March 31, 2023. Partially offsetting the increase in provision for common stock warrants was an increase in revenue due to an increase in the number of sites with fuel contracts from 159 as of March 31, 2022 to 210 as of March 31, 2023. All of the new fuel sites in the first quarter of 2023 were not deployed until late in the quarter; therefore, the full impact on revenue has yet to be realized.

Cost of Revenue

Cost of revenue - sales of equipment, related infrastructure and other. Cost of revenue from sales of equipment, related infrastructure and other includes direct materials, labor costs, and allocated overhead costs related to the manufacture of our fuel cells such as GenDrive units and GenSure stationary backup power units, as well as hydrogen fueling infrastructure referred to at the site level as hydrogen installations, electrolyzer stacks and systems, and other equipment such as cryogenic storage equipment and liquefiers. Cost of revenue from sales of fuel cell systems, related infrastructure and equipment for the three months ended March 31, 2023 increased 78.2%, or \$69.5 million, to \$158.3 million, compared to \$88.8 million for the three months ended March 31, 2022. The increase in hydrogen infrastructure cost of revenue of \$13.8 million was due to 14 hydrogen site installations for the three months ended March 31, 2023 compared to seven for the three months ended March 31, 2022. The increase in cryogenic storage equipment of \$31.0 million was due to an increase in costs related to the sales of liquefiers, as well as an increase in the cost of revenue of \$10.0 million due to the acquisition of CIS in which there were no costs of revenue recognized in the first quarter of 2022. The cost of revenue related to electrolyzer stacks and systems increased \$32.8 million, which was due to 62 one megawatt equivalent units sold for the three months ended March 31, 2023 compared to 2 one megawatt equivalent units sold for the three months ended March 31, 2022. The cost of revenue related to GenDrives increased \$4.9 million, as the number of units decreased from 1,229 for the three months ended March 31, 2022 to 1.035 for the three months ended March 31, 2023. Partially offsetting these increases is a decrease of \$12.9 million related to the legacy oil and gas contracts. Gross margin decreased to 13.1% for the three months ended March 31, 2023, compared to 18.4% for the three months ended March 31, 2022. The decrease in gross margin was primarily due to ramp up of costs on new product offerings for high power stationary units and electrolyzers as well as an increase in the provision for common stock warrants. The provision for common stock warrants was \$0.4 million and \$17 thousand for the three months ended March 31, 2023 and 2022, respectively.

Cost of revenue – services performed on fuel cell systems and related infrastructure. Cost of revenue from services performed on fuel cell systems and related infrastructure includes the labor, material costs and allocated overhead

costs incurred for our product service and hydrogen site maintenance contracts and spare parts. At March 31, 2023, there were 20,154 fuel cell units and 95 hydrogen installations under extended maintenance contracts, an increase from 19,409 fuel cell units and 84 hydrogen installations at March 31, 2022, respectively. Cost of revenue from services performed on fuel cell systems and related infrastructure for the three months ended March 31, 2023 decreased 11.9%, or \$1.7 million, to \$12.2 million, compared to \$13.9 million for the three months ended March 31, 2022. Gross loss decreased to (34.3%) for the three months ended March 31, 2023, compared to (68.4%) for the three months ended March 31, 2022. The decrease in cost of revenue and improvement in gross loss are both due primarily due to cost down and quality related initiatives.

Cost of revenue – provision for loss contracts related to service. The Company also recorded a provision for loss contracts related to service of \$6.9 million for the three months ended March 31, 2023, compared to \$2.1 million for the three months ended March 31, 2022, related primarily to new service contracts entered into during the first quarter of 2023.

Cost of revenue – Power Purchase Agreements. Cost of revenue from PPAs includes depreciation of assets utilized and service costs to fulfill PPA obligations and interest costs associated with certain financial institutions for leased equipment. At March 31, 2023, there were 117 GenKey sites associated with PPAs, as compared to 77 at March 31, 2022. Cost of revenue from PPAs for the three months ended March 31, 2023 increased 47.4%, or \$15.1 million, to \$46.8 million from \$31.8 million for the three months ended March 31, 2022 due to the increase in units and sites under PPA contract as well as increased freight costs. Gross loss increased to (489.8%) for the three months ended March 31, 2023, as compared to (216.4%) for the three months ended March 31, 2022 primarily due to the provision for common stock warrants of \$7.2 million for the three months ended March 31, 2023 compared to \$1.0 million for the three months ended March 31, 2022.

Cost of revenue – fuel delivered to customers and related equipment. Cost of revenue from fuel delivered to customers and related equipment represents the purchase of hydrogen from suppliers that ultimately is sold to customers and costs for onsite generation. Cost of revenue from fuel delivered to customers for the three months ended March 31, 2023 increased 38.8%, or \$15.2 million, to \$54.5 million from \$39.3 million for the three months ended March 31, 2022. The increase was primarily due to higher volume of hydrogen delivered to customer sites as a result of an increase in the number of hydrogen installations completed under GenKey agreements, inefficiencies in fueling systems and higher fuel costs. The gross loss increased to (437.4%) during the three months ended March 31, 2023, compared to (192.5%) during the three months ended March 31, 2022, primarily due to the increase in cost of revenue described above, as well as a reduction of revenue resulting from an increase in the provision for common stock warrants of \$6.2 million and \$0.7 million for the three months ended March 31, 2023 and 2022, respectively.

Expenses

Research and development expense. Research and development ("R&D") expense includes: materials to build development and prototype units, cash and non-cash stock-based compensation and benefits for the engineering and related staff, expenses for contract engineers, fees paid to consultants for services provided, materials and supplies consumed, facility related costs such as computer and network services, and other general overhead costs associated with our research and development activities.

Research and development expense for the three months ended March 31, 2023 increased \$6.1 million, or 29.7%, to \$26.5 million, from \$20.5 million for the three months ended March 31, 2022. The overall growth in R&D investment is commensurate with the Company's future expansion into new markets, new product lines, acquisitions and varied vertical integrations.

Selling, general and administrative expenses. Selling, general and administrative expenses includes cash and non-cash stock-based compensation, benefits, amortization of intangible assets and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services.

Selling, general and administrative expenses for the three months ended March 31, 2023, increased \$23.1 million, or 28.6%, to \$104.0 million from \$80.9 million for the three months ended March 31, 2022. This increase was primarily related to increased headcount, which resulted in increased salaries and stock-based compensation.

Contingent consideration. The fair value of the contingent consideration is related to earnouts for the Giner ELX, Inc., United Hydrogen Group Inc., Frames, Applied Cryo and Joule acquisitions. The change in fair value for the three months ended March 31, 2023 was \$8.8 million, primarily due to the passage of time and settlement of the Applied Cryo earnout, which is expected to be paid in the second quarter of 2023.

Interest income. Interest income primarily consists of income generated by our investment holdings, restricted cash escrow accounts, and money market accounts. Interest income for the three months ended March 31, 2023 increased \$15.6 million, as compared to the three months ended March 31, 2022. The increase was primarily related to the increase in interest rates during 2023.

Interest expense. Interest expense consists of interest expense related to our long-term debt, convertible senior notes, obligations under finance leases and our finance obligations. Interest expense for the three months ended March 31, 2023 increased \$2.0 million compared to the three months ended March 31, 2022, primarily related to a decrease in capitalized interest, offset by an increase in finance obligations.

Realized loss on investments, net. Realized loss on investments, net consists of the sales related to available-for-sale debt securities. For the three months ended March 31, 2022, the Company had a loss of \$0.8 million of net realized loss on investments, compared to \$0 for the three months ended March 31, 2023.

Change in fair value of equity securities. The change in fair value of equity securities improved \$10.2 million for the three months ended March 31, 2023 from March 31, 2022.

Loss on equity method investments. Loss on equity method investments consists of our interest in HyVia, which is our 50/50 joint venture with Renault, AccionaPlug S.L., which is our 50/50 joint venture with Acciona, and SK Plug Hyverse, which is our 49/51 joint venture with SK E&S. For the three months ended March 31, 2023, the Company recorded a loss of \$5.3 million on equity method investments. These losses are driven from the start-up activities for commercial and production operations.

Income Taxes

The Company recorded \$1.3 million and \$0.4 million of income tax benefit for the three months ended March 31, 2023 and 2022, respectively. The Company has not changed its overall conclusion with respect to the need for a valuation allowance against its domestic net deferred tax assets, which remain fully reserved.

The domestic net deferred tax asset generated from the Company's net operating loss has been offset by a full valuation allowance because it is more likely than not that the tax benefits of the net operating loss carry forward will not be realized. The Company recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

Liquidity and Capital Resources

Liquidity

As of March 31, 2023 and December 31, 2022, the Company had \$474.9 million and \$690.6 million, respectively of cash and cash equivalents and \$898.4 million and \$858.7 million of restricted cash, respectively. Additionally, the Company had \$1.0 billion and \$1.3 billion of available-for-sale securities as of March 31, 2023 and December 21, 2022, respectively.

The Company has continued to experience negative cash flows from operations and net losses. The Company incurred net losses of \$206.6 million and \$156.5 million for the three months ended March 31, 2023 and 2022, respectively, and had an accumulated deficit of \$3.3 billion at March 31, 2023.

The net cash used in operating activities for the three months ended March 31, 2023 and 2022 was \$276.9 million and \$209.9 million, respectively. This increase was primarily due to an increase in spend related to inventory as well as other working capital changes. The Company's working capital was \$2.3 billion as of March 31, 2023, which included unrestricted cash and cash equivalents of \$474.9 million. The Company plans to invest a portion of its available cash to expand its current production and manufacturing capacity, construction of hydrogen plants and to fund strategic acquisitions and partnerships and capital projects. Future use of the Company's funds is discretionary and the Company believes that its working capital and cash position will be sufficient to fund its operations for at least one year after the date the financial statements are issued.

The net cash provided by investing activities for the three months ended March 31, 2023 and 2022 was \$95.8 million and \$273.9 million, respectively. This decrease was due to a reduction of proceeds from available-for-sale securities compared to the prior year, partially offset by an increase of capital spending. Included in purchases of property, plant and equipment and outflows associated with materials, labor, and overhead are costs necessary to construct new leased property. Cash outflows related to equipment that we lease directly to customers are included in net cash used in investing activities.

The net cash provided by financing activities for the three months ended March 31, 2023 was \$7.2 million compared to net cash used in financing activities for the three months ended March 31, 2022 of \$18.2 million. The change was primarily driven by lower principal payments of long-term debt compared to the prior year due to decreased outstanding principal debt balances.

The Company's significant obligations consisted of the following as of March 31, 2023:

- (i) Operating and finance leases totaling \$327.8 million and \$48.0 million, respectively, of which \$52.9 million and \$8.6 million, respectively, are due within the next 12 months. These leases are primarily related to sale/leaseback agreements entered into with various financial institutions to facilitate the Company's commercial transactions with key customers.
- (ii) Finance obligations totaling \$342.8 million, of which approximately \$63.4 million is due within the next 12 months. Finance obligations consist primarily of debt associated with the sale of future revenues and failed sale/leaseback transactions.
- (iii) Convertible senior notes totaling \$194.3 million at March 31, 2023.

Public and Private Offerings of Equity and Debt

Common Stock Issuances

In February 2021, the Company sold 54,966,188 shares of its common stock to a subsidiary of SK Holdings at a purchase price of \$29,2893 per share, or an aggregate purchase price of approximately \$1.6 billion.

In January and February 2021, the Company issued and sold in a registered equity offering an aggregate of 32,200,000 million shares of its common stock at a purchase price of \$65.00 per share for net proceeds of approximately \$2.0 hillion

In November 2020, the Company issued and sold in a registered direct offering an aggregate of 43,700,000 shares of its common stock at a purchase price of \$22.25 per share for net proceeds of approximately \$927.3 million.

In August 2020, the Company issued and sold in a registered direct offering an aggregate of 35,276,250 shares of its common stock at a purchase price of \$10.25 per share for net proceeds of approximately \$344.4 million.

Convertible Senior Notes

In May 2020, the Company issued \$212.5 million in aggregate principal amount of 3.75% Convertible Senior Notes. The total net proceeds from this offering, after deducting costs of the issuance, were \$205.1 million. The Company used \$90.2 million of the net proceeds from the offering of the 3.75% Convertible Senior Notes to repurchase \$66.3 million of the \$100 million in aggregate principal amount of the 5.5% Convertible Senior Notes. In addition, the Company used approximately \$16.3 million of the net proceeds from the offering of the 3.75% Convertible Senior Notes to enter into privately negotiated capped called transactions. In the fourth quarter of 2020, \$33.5 million of the remaining 5.5% Convertible Senior Notes were converted into 14.6 million shares of common stock, resulting in a gain of approximately \$4.5 million which was recorded on the consolidated statement of operations on the gain (loss) on extinguishment of debt line. As of December 31, 2020, approximately \$0.2 million aggregate principal amount of the 5.5% Convertible Senior Notes remained outstanding, all of which were converted to common stock in January 2021.

Secured Debt

In March 2019, the Company entered into a loan and security agreement, as amended, with Generate Lending, LLC, providing for a secured term loan facility in the amount of \$100 million (the "Term Loan Facility"). In December 2022, the Company fully repaid the outstanding balance of the Term Loan Facility.

In June 2020, the Company acquired debt as part of its acquisition of United Hydrogen Group Inc. The outstanding carrying value of the debt was \$9.0 million as of March 31, 2023. The outstanding principal on the debt was \$11.1 million and the unamortized debt discount was \$2.1 million, bearing varying interest rates ranging from 2.2% to 8.3%. The debt is scheduled to mature in 2026. As of March 31, 2023, the principal balance indicated below was due at each of the following dates as follows (in thousands):

December 31, 2023	\$ 5,	,660
December 31, 2024	3,	,357
December 31, 2025	1,	,200
December 31, 2026		900
	\$ 11,	,117

3.75% Convertible Senior Notes

On May 18, 2020, the Company issued \$200.0 million in aggregate principal amount of 3.75% Convertible Senior Notes due June 1, 2025, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act. On May 29, 2020, the Company issued an additional \$12.5 million in aggregate principal amount of 3.75% Convertible Senior Notes. During the three months ended March 31, 2023, there were no conversions of the 3.75% Convertible Senior Notes.

The 3.75% Convertible Senior Notes consisted of the following (in thousands):

	<u></u>	March 31, 2023	 December 31, 2022
Principal amounts:			
Principal	\$	197,278	\$ 197,278
Unamortized debt issuance costs (1)		(3,028)	(3,359)
Net carrying amount	\$	194,250	\$ 193,919

¹⁾ Included in the unaudited interim condensed consolidated balance sheets within the 3.75% Convertible Senior Notes, net and amortized over the remaining life of the notes using the effective interest rate method.

The following table summarizes the total interest expense, the amortization of debt issuance costs and the effective interest rate related to the 3.75% Convertible Senior Notes (in thousands, except for the effective interest rate):

	M	Iarch 31, 2023	March 31, 2022
Interest expense	\$	1,849	\$ 1,849
Amortization of debt issuance costs		331	316
Total		2,180	2,165
Effective interest rate		4.5%	4.5%

Based on the closing price of the Company's common stock of \$11.72 on March 31, 2023, the if-converted value of the notes was greater than the principal amount. The estimated fair value of the note at March 31, 2023 was approximately \$433.6 million. The fair value estimation was primarily based on an active stock exchange trade on March 29, 2023 of the 3.75% Convertible Senior Notes.

Capped Call

In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (the "3.75% Notes Capped Call") with certain counterparties at a price of \$16.2 million. The 3.75% Notes Capped Call covers, subject to anti-dilution adjustments, the aggregate number of shares of the Company's common stock that underlie the initial 3.75% Convertible Senior Notes and is generally expected to reduce potential dilution to the Company's common stock upon any conversion of the 3.75% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. The cap price of the 3.75% Notes Capped Call is initially \$6.7560 per share, which represents a premium of approximately 60% over the last then-reported sale price of the Company's common stock of \$4.11 per share on the date of the transaction and is subject to certain adjustments under the terms of the 3.75% Notes Capped Call. The 3.75% Notes Capped Call becomes exercisable if the conversion option is exercised.

The net cost incurred in connection with the 3.75% Notes Capped Call were recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets. The book value of the 3.75% Notes Capped Call is not remeasured.

Common Stock Forward

In March 2018, the Company issued \$100.0 million in aggregate principal amount of the 5.5% Convertible Senior Notes due on March 15, 2023, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act, which have been fully repaid. In connection with the issuance of the 5.5% Convertible Senior Notes, the Company entered into a forward stock purchase transaction (the "Common Stock Forward"), pursuant to which the Company agreed to purchase 14,397,906 shares of its common stock for settlement on or about March 15, 2023. On May 18, 2020, the Company amended and extended the maturity of the Common Stock Forward to June 1, 2025. The number of shares of common stock that the Company will ultimately repurchase under the Common Stock Forward is subject to customary anti-dilution adjustments. The Common Stock Forward is subject to early settlement or settlement with alternative consideration in the event of certain corporate transactions.

The net cost incurred in connection with the Common Stock Forward of \$27.5 million was recorded as an increase in treasury stock in the unaudited interim condensed consolidated balance sheets. The related shares were accounted for as a repurchase of common stock. The book value of the Common Stock Forward is not remeasured.

There were no shares of common stock settled in connection with the Common Stock Forward during the three months ended March 31, 2023 or during the three months ended March 31, 2022.

Amazon Transaction Agreement in 2022

On August 24, 2022, the Company and Amazon entered into a Transaction Agreement (the "2022 Transaction Agreement"), under which the Company concurrently issued to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, a warrant (the "Amazon Warrant") to acquire up to 16,000,000 shares (the "Amazon Warrant Shares") of the Company's common stock, subject to certain vesting events described below. The Company and Amazon entered into the 2022 Transaction Agreement in connection with a concurrent commercial arrangement under which Amazon agreed to purchase hydrogen fuel from the Company through August 24, 2029.

1,000,000 of the Amazon Warrant Shares vested immediately upon issuance of the Amazon Warrant. 15,000,000 of the Amazon Warrant Shares will vest in multiple tranches over the 7-year term of the Amazon Warrant based on payments made to the Company directly by Amazon or its affiliates, or indirectly through third parties, with 15,000,000 of the Amazon Warrant Shares fully vesting if Amazon-related payments of \$2.1 billion are made in the aggregate. The exercise price for the first 9,000,000 Amazon Warrant Shares is \$22.9841 per share and the fair value on the grant date was \$20.36. The exercise price for the remaining 7,000,000 Amazon Warrant Shares will be an amount per share equal to 90% of the 30-day volume weighted average share price of the Company's common stock as of the final vesting event that results in full vesting of the first 9,000,000 Amazon Warrant Shares. The Amazon Warrant is exercisable through August 24, 2029.

Upon the consummation of certain change of control transactions (as defined in the applicable warrant) prior to the vesting of at least 60% of the aggregate Amazon Warrant Shares, the Amazon Warrant will automatically vest and become exercisable with respect to an additional number of Amazon Warrant Shares such that 60% of the aggregate Amazon Warrant Shares shall have vested. If a change of control transaction is consummated after the vesting of at least 60% of the aggregate Amazon Warrant Shares, then no acceleration of vesting will occur with respect to any of the unvested Amazon Warrant Shares as a result of the transaction. The exercise price and the Amazon Warrant Shares issuable upon exercise of the Amazon Warrant are subject to customary antidilution adjustments.

At March 31, 2023, 1,000,000 of the Amazon Warrant Shares issued pursuant to the 2022 Transaction Agreement had vested upon issuance. The warrant charge associated with the vested shares of \$20.4 million was capitalized to contract assets in our condensed consolidated unaudited interim financial statements based on the grant date fair value and is subsequently amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. The grant date fair value of tranches 2 and 3 will also be amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. Because the exercise price has yet to be determined, the fair value of tranche 4 will be remeasured at each reporting period end and amortized ratably as a reduction to revenue based on the Company's estimate of revenue over the term of the agreement. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the three months ended March 31, 2023 was \$1.1 million.

The assumptions used to calculate the valuations as of August 24, 2022 and March 31, 2023 are as follows:

	Tranches 1-3 August 24, 2022	Tranche 4 March 31, 2023
Risk-free interest rate	3.15%	3.50%
Volatility	75.00%	75.00%
Expected average term	7 years	4 years
Exercise price	\$22.98	\$10.55
Stock price	\$20.36	\$11.72

Amazon Transaction Agreement in 2017

On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the "2017 Amazon Transaction Agreement"), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a warrant to acquire up to 55,286,696 Amazon Warrant Shares, subject to certain vesting events described below. The Company and Amazon entered into the 2017 Amazon Transaction Agreement in connection with existing commercial agreements between the Company and Amazon with respect to the deployment of the Company's GenKey fuel cell

technology at Amazon distribution centers. The vesting of the Amazon Warrant Shares was conditioned upon payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to the existing commercial agreements. At December 31, 2021, all 55,286,696 of the Amazon Warrant Shares had vested.

The warrant had been exercised with respect to 27,600,000 and 24,704,450 shares of the Company's common stock as of March 31, 2023 and December 31, 2022, respectively.

Walmart Transaction Agreement

On July 20, 2017, the Company and Walmart entered into a Transaction Agreement (the "Walmart Transaction Agreement"), pursuant to which the Company agreed to issue to Walmart a warrant (the "Walmart Warrant") to acquire up to 55,286,696 shares of the Company's common stock, subject to certain vesting events (the "Walmart Warrant Shares"). The Company and Walmart entered into the Walmart Transaction Agreement in connection with existing commercial agreements between the Company and Walmart with respect to the deployment of the Company's GenKey fuel cell technology across various Walmart distribution centers. The existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Company's fuel cell technology. The vesting of the warrant shares was conditioned upon payments made by Walmart or its affiliates (directly or indirectly through third parties) pursuant to transactions entered into after January 1, 2017 under existing commercial agreements.

The warrant had been exercised with respect to 13,094,217 shares of the Company's common stock as of March 31, 2023 and December 31, 2022.

At March 31, 2023 and December 31, 2022, 27,643,347 of the Walmart Warrant Shares had vested. The total amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended March 31, 2023 and 2022 was \$12.9 million and \$1.7 million, respectively. During the three months ended March 31, 2023 and 2022, there were no exercises with respect to the Walmart Warrant.

The assumptions used to calculate the valuations of the final tranche of the Walmart Warrant as of March 31, 2023 are as follows:

	March 31, 2023
Risk-free interest rate	3.55%
Volatility	75.00%
Expected average term	3.5 years
Exercise price	\$10.55
Stock price	\$11.72

Operating and Finance Lease Liabilities

As of March 31, 2023, the Company had operating leases, as lessee, primarily associated with sale/leaseback transactions that are partially secured by restricted cash, security deposits and pledged escrows (see also Note 1, "Nature of Operations") as summarized below. These leases expire over the next one to nine years. Minimum rent payments under operating leases are recognized on a straight-line basis over the term of the lease.

Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote. At the end of the lease term, the leased assets may be returned to the lessor by the Company, the Company may negotiate with the lessor to purchase the assets at fair market value, or the Company may negotiate with the lessor to renew the lease at market rental rates. No residual value guarantees are contained in the leases. No financial covenants are contained within the lease; however, the lease contains customary operational covenants such as the requirement that the Company properly maintain the leased assets and carry appropriate insurance. The leases include credit support in the form of either cash, collateral or letters of credit. See Note 19, "Commitments and Contingencies" for a description of cash held as security associated with the leases.

The Company has finance leases associated with its property and equipment in Latham, New York and at fueling customer locations. The fair value of this finance obligation approximated the carrying value as of March 31, 2023.

Finance Obligation

The Company has sold future services to be performed associated with certain sale/leaseback transactions and recorded the balance as a finance obligation. The outstanding balance of this obligation at March 31, 2023 was \$324.9 million, \$59.9 million and \$265.0 million of which was classified as short-term and long-term, respectively, on the accompanying unaudited interim condensed consolidated balance sheet. The outstanding balance of this obligation at December 31, 2022 was \$312.1 million, \$55.4 million and \$256.6 million of which was classified as short-term and long-term, respectively. The amount is amortized using the effective interest method. Interest expense recorded related to finance obligations for the three months ended March 31, 2023 and 2022 was \$9.2 million and \$6.7 million, respectively. The fair value of this finance obligation approximated the carrying value as of March 31, 2023 and December 31, 2022.

In prior periods, the Company entered into sale/leaseback transactions that were accounted for as financing transactions and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions at March 31, 2023 was \$17.9 million, \$3.5 million and \$14.4 million of which was classified as short-term and long-term, respectively on the accompanying consolidated balance sheet. The outstanding balance of this obligation at December 31, 2022 was \$17.2 million, \$3.5 million and \$13.7 million of which was classified as short-term and long-term, respectively on the accompanying consolidated balance sheets. The fair value of this finance obligation approximated the carrying value as of March 31, 2023 and December 31, 2022.

Restricted Cash

In connection with certain of the above noted sale/leaseback agreements, cash of \$445.2 million and \$383.7 million was required to be restricted as security as of March 31, 2023 and December 31, 2022, respectively, which restricted cash will be released over the lease term. As of March 31, 2023 and December 31, 2022, the Company also had certain letters of credit backed by security deposits totaling \$340.5 million and \$379.6 million, respectively, that are security for the above noted sale/leaseback agreements. As of March 31, 2023, the Company also had certain customer and customs related letters of credit totaling \$22.7 million.

As of both March 31, 2023 and December 31, 2022, the Company had \$75.5 million held in escrow related to the construction of certain hydrogen plants.

The Company also had \$5.0 million, \$1.2 million, and \$1.8 million of consideration held by our paying agent in connection with the Applied Cryo, Joule, and CIS acquisitions, respectively, reported as restricted cash as of March 31, 2023, with a corresponding accrued liability on the Company's unaudited interim condensed consolidated balance sheet. Additionally, the Company had \$6.5 million and \$10.8 million in restricted cash as collateral resulting from the Frames acquisition as of March 31, 2023 and December 31, 2022, respectively.

Investments

Our investment portfolio, including cash and cash equivalents, totaled \$1.6 billion at March 31, 2023. Purchases of fixed maturity securities are classified as available-for-sale at the time of purchase based on individual security.

The composition of our investment portfolio, including cash and cash equivalents, as of March 31, 2023, is shown in the following table (in thousands):

	Carrying F Amount		Percentage of Portfolio
Fixed maturity securities - available-for-sale			
U.S. Treasuries	\$	864,508	52.6%
Corporate bonds		163,863	10.0%
Total fixed maturity securities - available-for-sale		1,028,371	62.6%
Equity securities		139,911	8.5%
Cash and cash equivalents		474,861	28.9%
Total investments, including cash and cash equivalents	\$	1,643,143	100.0%

Extended Maintenance Contracts

On a quarterly basis, we evaluate any potential losses related to our extended maintenance contracts for fuel cell systems and related infrastructure that have been sold. The following table shows the rollforward of balance in the accrual for loss contracts, including changes due to the provision for loss accrual, loss accrual from acquisition, releases to service cost of sales, and releases due to the provision for warrants (in thousands):

	ended e		Year ended ember 31, 2022	
Beginning balance	\$	81,066	\$	89,773
Provision for loss accrual		6,981		23,295
Releases to service cost of sales		(6,668)		(35,446)
Increase/(decrease) to loss accrual related to customer warrants		(92)		3,506
Foreign currency translation adjustment		25		(62)
Ending balance	\$	81,312	\$	81,066

Critical Accounting Estimates

Management's discussion and analysis of our financial condition and results of operations are based upon our consolidated financial statements, which have been prepared in accordance with GAAP. The preparation of these consolidated financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities at the date of and during the reporting period. On an on-going basis, we evaluate our estimates and judgments, including those related to revenue recognition, valuation of long-lived assets, accrual for service loss contracts and common stock warrants. We base our estimates and judgments on historical experience and on various other factors and assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about (1) the carrying values of assets and liabilities and (2) the amount of revenue and expenses realized that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

There have been no changes in our critical accounting estimates from those reported in our 2022 Form 10-K.

Recent Accounting Pronouncements

Recently Adopted Accounting Guidance

Other than the adoption of the accounting guidance mentioned in our 2022 Form 10-K, there have been no other significant changes in our reported financial position or results of operations and cash flows resulting from the adoption of new accounting pronouncements.

Recent Accounting Guidance Not Yet Effective

All issued but not yet effective accounting and reporting standards as of March 31, 2023 are either not applicable to the Company or are not expected to have a material impact on the Company.

Item 3 — Quantitative and Qualitative Disclosures about Market Risk

There has been no material change from the information provided in the Company's 2022 Form 10-K under the section titled "Item 7A: Quantitative and Qualitative Disclosures About Market Risk."

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 our reports that we file or submit under the Exchange Act, are recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer (our principal executive officer) and Chief Financial Officer (our principal financial officer) as appropriate, to allow for timely decisions regarding required disclosure.

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act), as of March 31, 2023. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that as of March 31, 2023, our disclosure controls and procedures were not effective because of material weaknesses in internal control over financial reporting described in Part II, Item 9A "Controls and Procedures" of our 2022 Form 10-K. The material weaknesses have not been remediated as of March 31, 2023.

Changes in Internal Control over Financial Reporting

There were no changes during the quarter ended March 31, 2023 in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Part II. OTHER INFORMATION

Item 1 - Legal Proceedings

See "Note 19: Commitments and Contingencies" within Item 1 of this Form 10-Q for a discussion regarding material legal proceedings.

Except as otherwise noted, there have been no material developments in legal proceedings. For previously reported information about legal proceedings, refer to Part I, Item 3, "Legal Proceedings," of the Company's 2022 Form 10-K.

Item 1A - Risk Factors

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the risk factors that could materially affect the Company's business, financial condition or future results discussed in the Company's 2022 Form 10-K in Part I, Item 1A. "Risk Factors." The risks described in the 2022 Form 10-K are not the only risks that could affect the Company. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial may also materially adversely affect our business, financial condition and/or operating results in the future. As a supplement to the risk factors identified in the 2022 Form 10-K, below we have set forth updated risk factors. Other than as provided below, there have been no material changes to our risk factors since December 31, 2022.

We are dependent on information technology in our operations and the failure of such technology may adversely affect our business. Security breaches of our information technology systems, including cyber-attacks, ransomware attacks, or use of malware or phishing or other malicious techniques by threat actors, could lead to liability, could impact our operations, or could damage our reputation and financial results.

We have in the past and may in the future experience problems with the operation of our current information technology systems or the technology systems of third parties on which we rely, as well as the development and deployment of new information technology systems, that could adversely affect, or even temporarily disrupt, all or a portion of our operations until resolved. The inability to implement new systems or delays in implementing new information technology systems may also affect our ability to realize projected or expected cost savings. Additionally, the inability to implement or delays in implementing new security measures can also affect our ability to protect against increasingly sophisticated threat actors. Any systems failures could impede our ability to timely collect and report financial results in accordance with applicable laws.

Information technology system and/or network disruptions could harm the Company's operations. Failure to effectively prevent, detect, and recover from security compromises or breaches, including cyber-attacks, could result in the misuse of company assets, unauthorized use or publication of our trade secrets and confidential business information, disruption to the company, diversion of management resources, regulatory inquiries, legal claims or proceedings, reputational damage, loss of sales, reduction in value of our investment in research and development, among other costs to the company. We have experienced and may continue to experience both successful and unsuccessful attempts to gain unauthorized access to our information technology systems on which we maintain proprietary and confidential information. For example, in or around March 2023, an unauthorized actor accessed our computer network and executed a ransomware attack, resulting in the encryption of certain of our computer systems, including systems used to store proprietary and confidential data, and exfiltration of limited data sets. Upon detection, we took immediate steps to contain, assess and remediate the incident, including engaging outside legal counsel and external forensic investigators. As of the date of the filing of this Quarterly Report on Form 10-Q, we have restored the affected systems and throughout this restoration period our business remained fully operational with no material disruption. Based on information available to date, we do not believe the ransomware event has had a material impact on our business. However, as a result of the incident, we have incurred costs in addressing the incident, including costs related to investigation, containment, restoration, and remediation.

The risk of a security compromise, breach, or disruption, particularly through cyber-attacks, or cyber intrusion, including by computer hackers, insider threats, and cyber terrorists, has generally increased as cyber-attacks have become

more prevalent and harder to detect and fight against and threat actors continue to become more sophisticated in their malicious techniques. Additionally, outside or unauthorized parties may attempt to access our confidential information through other means, for example by fraudulently inducing our employees to disclose confidential information through phishing emails or deceptive advertising campaigns. We actively seek to prevent, detect, and investigate any unauthorized access. These threats are also continually evolving, and as a result, will become increasingly difficult to detect. In addition, as a result of the COVID-19 pandemic, the increased prevalence of employees working from home may exacerbate the aforementioned cybersecurity risks. Despite the implementation of network security measures, our information technology system have been and could be penetrated by outside or unauthorized parties. Going forward, we may expend additional resources, expenses, and legal and professional fees to further enhance the security of our information technology systems and continually assess our current security measures. In addition, we may be subject to governmental investigations, enforcement actions, regulatory fines or litigation, or we may suffer from reputational damage or public statements against us as a result of unauthorized access to our information technology systems.

Adverse developments affecting the financial services industry, such as actual events or concerns involving liquidity, defaults, or non-performance by financial institutions or transactional counterparties, could adversely affect our business, financial condition and results of operations.

Actual events involving limited liquidity, defaults, non-performance or other adverse developments that affect financial institutions, transactional counterparties or other companies in the financial services industry or the financial services industry generally, or concerns or rumors about any events of these kinds or other similar risks, have in the past and may in the future lead to market-wide liquidity problems. For example, the recent closures of Silicon Valley Bank, Signature Bank and Silvergate Capital Corp. led to disruption and volatility, and erosion of customer confidence, in the banking system, including deposit outflows, at many mid-sized banks, increasing the need for liquidity. Further, uncertainty remains over liquidity concerns in the broader financial services industry. For example, Credit Suisse recently agreed to be acquired by UBS following the intervention of the Swiss Federal Department of Finance, the Swiss National Bank and the Swiss Financial Market Supervisory Authority, and it was recently announced that JPMorgan Chase Bank, National Association would assume all of First Republic Bank's deposits and substantially all of its assets.

Although a statement by the Department of the Treasury, the Federal Reserve and the FDIC indicated that all depositors of SVB would have access to all of their money after only one business day of closure, including funds held in uninsured deposit accounts, it is not clear that the Federal Reserve or the FDIC will treat future bank failures similarly. We maintain deposits at financial institutions as a part of doing business that could be at risk if another similar event were to occur. Our ongoing cash management strategy is to maintain the majority of our deposit accounts in large financial institutions, but there can be no assurance this strategy will be successful. In addition, bank failures and bailouts and their potential broader effects and potential systemic risk on the global banking sector generally and its participants may adversely affect our business more generally. If any of our customers, suppliers or other parties with whom we conduct business are unable to access funds pursuant to instruments or lending arrangements with such a financial institution or if any of our customers, suppliers or other parties with whom we conduct business declare bankruptcy or insolvency, such parties' ability to pay their obligations to us or to enter into new commercial arrangements requiring additional payments to us could be adversely affected. For example, a leaseholder bank for one of our sale leaseback transactions was recently placed in receivership and, while this did not have a material impact on our financial condition or results of operations, it could limit our access to proceeds from the transaction.

In addition, any decline in available funding or access to our cash and liquidity resources could, among other risks, limit our ability to meet our capital needs and fund future growth or fulfill our other obligations, or result in breaches of our financial and/or contractual obligations. Investor concerns regarding the U.S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, including the corporate bond market, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any of these impacts, or any other impacts resulting from the factors described above or other related or similar factors not described above, could have material adverse impacts on our business, financial condition and results of operations.

(a) Not applicable.

Item 2 - Unregistered Sales of Equity Securities and Use of Proceeds

Item 3 — Defaults Upon Senior Securities						
Item 5 — Other Information						

Item 6 — Exhibits

3.1	Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.'s	š
	Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated by reference herein).	

- 3.2 Certificate of Amendment to Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.3 to Plug Power Inc.'s Annual Report on Form 10-K for the year ended December 31, 2008 and incorporated by reference herein).
- 3.3 <u>Second Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc.</u>
 (filed as Exhibit 3.1 to Plug Power Inc.'s Current Report on Form 8-K filed on May 19, 2011 and incorporated by reference herein).
- 3.4 Third Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.'s Current Report on Form 8-K filed on July 25, 2014 and incorporated by reference herein).
- 3.5 <u>Certificate of Correction to Third Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.9 to Plug Power Inc.'s Annual Report on Form 10-K for the year ended December 31, 2016 and incorporated by reference herein).</u>
- 3.6 Fourth Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.1 to Plug Power Inc.'s Current Report on Form 8-K filed on June 30, 2017 and incorporated by reference herein).
- 3.7 Fifth Certificate of Amendment of Amended and Restated Certificate of Incorporation of Plug Power Inc. (filed as Exhibit 3.7 to Plug Power Inc.'s Quarterly Report on Form 10-Q filed on August 5, 2021 and incorporated by reference herein).
- 3.8 <u>Certificate of Designations, Preferences and Rights of a Series of Preferred Stock of Plug Power Inc. classifying and designating the Series A Junior Participating Cumulative Preferred Stock. (filed as Exhibit 3.1 to Plug Power Inc.'s Registration Statement on Form 8-A filed on June 24, 2009 and incorporated by reference herein).</u>
- 3.9 <u>Fifth Amended and Restated By-laws of Plug Power Inc. (filed as Exhibit 3.9 to Plug Power Inc.'s Annual Report on Form 10-K for the year ended December 31, 2022 and incorporated by reference herein).</u>
- 10.1 Separation Agreement, dated April 1, 2023, between Plug Power Inc. and Dirk Ole Hoefelmann (filed as Exhibit 10.12 to the Plug Power Inc.'s Annual Report on Form 10-K/A for the year ended December 31, 2022 and incorporated by reference herein).
- 31.1* Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2* Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1** Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2** Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 101.INS* Inline XBRL Instance Document
- 101.SCH* Inline XBRL Taxonomy Extension Schema Document
- 101.CAL* Inline XBRL Taxonomy Extension Calculation Linkbase Document
- 101.DEF* Inline XBRL Taxonomy Extension Definition Linkbase Document
- 101.LAB* Inline XBRL Taxonomy Extension Labels Linkbase Document
- 101.PRE* Inline XBRL Taxonomy Extension Presentation Linkbase Document
- 104* Cover Page Interactive Data File (embedded within the Inline XBRL document)

^{*} Submitted electronically herewith.

^{**} Pursuant to Item 601(b)(32)(ii) of Regulation S-K, this certification is not being filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended.

Signatures

Pursuant to 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.

PLUG POWER INC.

Date: May 9, 2023 By: /s/ Andrew Marsh

Andrew Marsh

President, Chief Executive Officer and Director (Principal

Executive Officer)

Date: May 9, 2023 By: /s/ Paul B. Middleton

Paul B. Middleton

Chief Financial Officer (Principal

Financial Officer)

- I, Andrew Marsh, certify that:
- 1. I have reviewed this quarterly report on Form 10-Q of Plug Power Inc.;
- 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 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 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.

by:	/s/ Andrew Marsh	
	Andrew Marsh	
	Chief Executive Officer	

Date: May 9, 2023

- I, Paul B. Middleton, certify that:
- 1. I have reviewed this quarterly report on Form 10-Q of Plug Power Inc.;
- 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 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 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.

by:	/s/ Paul B. Middleton		
	Paul B. Middleton		
	Chief Financial Officer		

Date: May 9, 2023

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Plug Power Inc. (the "Company") on Form 10-Q for the period ending March 31, 2023 as filed with the Securities and Exchange Commission (the "SEC") on the date hereof (the "Report"), I, Andrew Marsh, Chief Executive Officer of the Company, certify, solely pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) 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; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification is being furnished and not filed, and shall not be incorporated into any documents for any other purpose, under the Securities Exchange Act of 1934, as amended or the Securities Act of 1933, as amended. A signed original of this written statement required by § 906 has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.

/s/ Andrew Marsh		
Andrew Marsh		
Chief Executive Officer		
May 9, 2023		

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO

SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Plug Power Inc. (the "Company") on Form 10-Q for the period ending March 31, 2023 as filed with the Securities and Exchange Commission (the "SEC") on the date hereof (the "Report"), I, Paul B. Middleton, Chief Financial Officer of the Company, certify, solely pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) 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; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

This certification is being furnished and not filed, and shall not be incorporated into any documents for any other purpose, under the Securities Exchange Act of 1934, as amended or the Securities Act of 1933, as amended. A signed original of this written statement required by § 906 has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.

/s/ Paul B. Middleton
Paul B. Middleton
Chief Financial Officer

May 9, 2023