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

FORM 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED September 30, 2020

OR

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

FOR THE TRANSITION PERIOD FROM TO

Commission File Number: 1-34392

PLUG POWER INC.
(Exact name of registrant as specified in its charter)

Delaware (State or Other Jurisdiction of Incorporation or Organization)	**22-3672377** (I.R.S. Employer Identification Number)

968 ALBANY SHAKER ROAD, LATHAM, NEW YORK 12110
(Address of Principal Executive Offices, including Zip Code)

(518) 782-7700
(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.01 per share	PLUG	The Nasdaq Capital Market

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

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

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

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

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

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

The number of shares of common stock, par value of $0.01 per share, outstanding as of November 6, 2020 was 415,598,288.

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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)

	September 30, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 448,140	$ 139,496
Restricted cash	55,704	54,813
Accounts receivable	113,133	25,448
Inventory	134,306	72,391
Prepaid expenses and other current assets	26,731	21,192
Total current assets	778,014	313,340
Restricted cash	227,528	175,191
Property, plant, and equipment, net of accumulated depreciation of $20,661 and $17,417, respectively	64,820	14,959
Leased property, net	309,475	244,740
Goodwill	71,962	8,842
Intangible assets, net	39,169	5,539
Other assets	9,661	8,573
Total assets	$ 1,500,629	$ 771,184
Liabilities, Redeemable Preferred Stock, and Stockholders' Equity		
Current liabilities:		
Accounts payable	$ 58,793	$ 40,376
Accrued expenses	32,031	14,213
Deferred revenue	17,226	11,691
Finance obligations	63,692	49,507
Current portion of long-term debt	74,829	26,461
Other current liabilities	17,280	8,543
Total current liabilities	263,851	150,791
Deferred revenue	29,648	23,369
Finance obligations	337,150	265,228
Convertible senior notes, net	105,088	110,246
Long-term debt	120,380	85,708
Other liabilities	27,068	13
Total liabilities	883,185	635,355
Redeemable preferred stock:		
Series C redeemable convertible preferred stock, $0.01 par value per share (aggregate involuntary liquidation preference $16,664); 10,431 shares authorized; Issued and outstanding: zero at September 30, 2020 and 2,620 at December 31, 2019	—	709
Series E redeemable preferred stock, $0.01 par value per share; Shares authorized: 35,000 at both September 30, 2020 and December 31, 2019; Issued and outstanding: zero at September 30, 2020 and 500 at December 31, 2019	—	441
Stockholders' equity:		
Common stock, $0.01 par value per share; 750,000,000 shares authorized; Issued (including shares in treasury): 406,123,816 at September 30, 2020 and 318,637,560 at December 31, 2019	4,061	3,186
Additional paid-in capital	2,083,199	1,507,116
Accumulated other comprehensive income	1,958	1,400
Accumulated deficit	(1,431,340)	(1,345,807)
Less common stock in treasury: 15,926,068 at September 30, 2020 and 15,259,045 at December 31, 2019	(40,434)	(31,216)
Total stockholders' equity	617,444	134,679
Total liabilities, redeemable preferred stock, and stockholders' equity	$ 1,500,629	$ 771,184

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements

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

	Three Months Ended September 30, 2020	Three Months Ended September 30, 2019	Nine Months Ended September 30, 2020	Nine Months Ended September 30, 2019
Net revenue:				
Sales of fuel cell systems and related infrastructure	$ 83,528	$ 38,877	$ 151,661	$ 80,117
Services performed on fuel cell systems and related infrastructure	6,829	6,205	19,586	17,889
Power Purchase Agreements	6,704	6,595	19,854	19,114
Fuel delivered to customers	9,831	7,649	24,536	21,320
Other	97	135	235	135
Net revenue	106,989	59,461	215,872	138,575
Cost of revenue:				
Sales of fuel cell systems and related infrastructure	68,509	24,990	115,929	50,440
Services performed on fuel cell systems and related infrastructure	7,074	6,461	21,746	18,802
Provision for loss contracts related to service	4,306	—	4,306	—
Power Purchase Agreements	14,087	10,353	42,034	28,064
Fuel delivered to customers	14,172	9,160	32,267	25,935
Other	131	150	275	150
Total cost of revenue	108,279	51,114	216,557	123,391
Gross (loss) profit	(1,290)	8,347	(685)	15,184
Operating expenses:				
Research and development	11,964	8,028	32,133	24,334
Selling, general and administrative	14,277	10,400	46,948	33,351
Total operating expenses	26,241	18,428	79,081	57,685
Operating loss	(27,531)	(10,081)	(79,766)	(42,501)
Interest and other expense, net	(17,241)	(7,972)	(42,022)	(24,178)
Change in fair value of common stock warrant liability	—	427	—	7
Change in fair value of contingent consideration	(1,130)	—	(1,130)	—
Gain (loss) on extinguishment of debt	—	(518)	13,222	(518)
Loss before income taxes	$ (45,902)	$ (18,144)	$ (109,696)	$ (67,190)
Income tax benefit	6,523	—	24,182	—
Net loss attributable to the Company	$ (39,379)	$ (18,144)	$ (85,514)	$ (67,190)
Preferred stock dividends declared and accretion of discount	—	(13)	(19)	(39)
Net loss attributable to common stockholders	$ (39,379)	$ (18,157)	$ (85,533)	$ (67,229)
Net loss per share:				
Basic and diluted	$ (0.11)	$ (0.08)	$ (0.26)	$ (0.29)
Weighted average number of common stock outstanding	371,010,544	236,759,521	330,949,265	229,519,323

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements

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

	Three months ended September 30,		Nine months ended September 30,	
	2020	**2019**	**2020**	**2019**
Net loss attributable to the Company	$ (39,379)	$ (18,144)	$ (85,514)	$ (67,190)
Other comprehensive gain (loss) - foreign currency translation adjustment	687	(531)	558	(655)
Comprehensive loss	$ (38,692)	$ (18,675)	$ (84,956)	$ (67,845)

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements

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

	Common Stock		Additional Paid-in	Accumulated Other Comprehensive	Treasury Stock		Accumulated	Total Stockholders'
	Shares	Amount	Capital	Income	Shares	Amount	Deficit	(Deficit) Equity
December 31, 2019	**318,637,560**	**$ 3,186**	**$ 1,507,116**	**$ 1,400**	**15,259,045**	**$ (31,216)**	**$ (1,345,807)**	**$ 134,679**
Net loss attributable to the Company	—	—	—	—	—	—	(85,514)	(85,514)
Other comprehensive loss	—	—	—	558	—	—	—	558
Stock-based compensation	402,003	4	9,254	—	—	—	—	9,258
Stock dividend	5,156	—	19	—	—	—	(19)	—
Public offerings, common stock, net	35,276,250	353	344,045	—	—	—	—	344,398
Stock option exercises	13,736,265	137	32,416	—	667,023	(9,218)	—	23,335
Equity component of 3.75% Convertible Senior Notes issued, net of issuance costs and income tax expense	—	—	108,347	—	—	—	—	108,347
Purchase of capped calls	—	—	(16,253)	—	—	—	—	(16,253)
Termination of capped calls	—	—	24,158	—	—	—	—	24,158
Provision for common stock warrants	—	—	32,529	—	—	—	—	32,529
Accretion of discount, preferred stock	—	—	(29)	—	—	—	—	(29)
Conversion of preferred stock	2,998,526	30	1,148	—	—	—	—	1,178
Conversion of 7.5% Convertible Senior Note	16,000,000	160	42,713	—	—	—	—	42,873
Repurchase of 5.5% Convertible Senior Notes, net of income tax benefit	9,409,591	94	(51,840)	—	—	—	—	(51,746)
Shares issued for acquisitions	9,658,465	97	49,576	—	—	—	—	49,673
September 30, 2020	**406,123,816**	**$ 4,061**	**$ 2,083,199**	**$ 1,958**	**15,926,068**	**$ (40,434)**	**$ (1,431,340)**	**$ 617,444**
December 31, 2018	**234,160,661**	**$ 2,342**	**$ 1,289,714**	**$ 1,584**	**15,002,663**	**$ (30,637)**	**$ (1,260,290)**	**$ 2,713**
Net loss attributable to the Company	—	—	—	—	—	—	(67,190)	(67,190)
Other comprehensive loss	—	—	—	(655)	—	—	—	(655)
Stock-based compensation	1,715,454	17	7,910	—	—	—	—	7,927
Stock dividend	15,067	—	39	—	—	—	(39)	—
Issuance of common stock, net	16,333,585	163	37,935	—	—	—	—	38,098
Stock option exercises	258,409	3	460	—	256,382	(579)	—	(116)
Provision for common stock warrants	—	—	10,244	—	—	—	—	10,244
Accretion of discount, preferred stock	—	—	(772)	—	—	—	—	(772)
Conversion of preferred stock	1,499,402	15	1,868	—	—	—	—	1,883
September 30, 2019	**253,982,578**	**$ 2,540**	**$ 1,347,398**	**$ 929**	**15,259,045**	**$ (31,216)**	**$ (1,327,519)**	**$ (7,868)**

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements

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

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Operating Activities		
Net loss attributable to the Company	$ (85,514)	$ (67,190)
Adjustments to reconcile net loss to net cash used in operating activities:		
Depreciation of property, plant and equipment, and leased property	9,381	8,944
Amortization of intangible assets	835	518
Stock-based compensation	9,258	7,927
Gain on extinguishment of debt	(13,222)	—
Provision for bad debts and other assets	—	1,253
Amortization of debt issuance costs and discount on convertible senior notes	12,183	6,257
Provision for common stock warrants	25,198	3,706
Loss on disposal of leased assets	—	212
Fair value adjustment to contingent consideration	1,130	—
Provision for loss contracts related to service	4,306	—
Change in fair value of common stock warrant liability	—	(7)
Income tax benefit	(24,182)	—
Changes in operating assets and liabilities that provide (use) cash:		
Accounts receivable	(86,004)	11,702
Inventory	(57,718)	(32,691)
Prepaid expenses, and other assets	(4,956)	427
Accounts payable, accrued expenses, and other liabilities	35,748	13,293
Deferred revenue	16,647	(6,152)
Net cash used in operating activities	(156,910)	(51,801)
Investing Activities		
Purchases of property, plant and equipment	(11,265)	(4,635)
Purchase of intangible assets	(1,638)	(1,860)
Purchases for construction of leased property	(13,699)	(2,851)
Net cash paid for acquisitions	(45,113)	—
Proceeds from sale of leased assets	—	375
Net cash used in investing activities	(71,715)	(8,971)
Financing Activities		
Proceeds from issuance of preferred stock, net of transaction costs	—	(37)
Proceeds from public offerings, net of transaction costs	344,398	38,098
Proceeds from exercise of stock options	23,335	(116)
Payments for redemption of preferred stock	—	(4,040)
Proceeds from issuance of convertible senior notes, net	205,098	39,052
Repurchase of convertible senior notes	(90,238)	—
Purchase of capped calls	(16,253)	—
Proceeds from termination of capped calls	24,158	—
Principal payments on long-term debt	(27,845)	(21,186)
Proceeds from long-term debt, net	99,000	99,496
Repayments of finance obligations	(18,634)	(59,461)
Proceeds from finance obligations	47,568	57,249
Net cash provided by financing activities	590,587	149,055
Effect of exchange rate changes on cash	(90)	(119)
Increase in cash, cash equivalents and restricted cash	361,872	88,164
Cash, cash equivalents, and restricted cash beginning of period	369,500	110,153
Cash, cash equivalents, and restricted cash end of period	$ 731,372	$ 198,317
Supplemental disclosure of cash flow information		
Cash paid for interest	$ 16,975	$ 8,673
Summary of non-cash investing and financing activity		
Recognition of right of use asset	$ 56,377	$ 78,626
Conversion of preferred stock to common stock	—	1,883
Conversion of convertible notes to common stock	42,873	—

The accompanying notes are an integral part of these unaudited interim condensed consolidated financial statements

Notes to Interim Condensed Consolidated Financial Statements
(unaudited)

Unless the context indicates, the terms "Company," "Plug Power," "we," "our" or "us" as used herein refers to Plug Power Inc. and its subsidiaries.

1. Nature of Operations

Description of Business

As a leading provider of comprehensive hydrogen fuel cell turnkey solutions, Plug Power Inc., or the Company, is seeking to build a green hydrogen economy. The Company is focused on hydrogen and fuel cell systems that are used to power electric motors primarily in the electric mobility and stationary power markets, given the ongoing paradigm shift in the power, energy, and transportation industries to address climate change, energy security, and meet sustainability goals. Plug Power created the first commercially viable market for hydrogen fuel cell, or the HFC technology. As a result, the Company has deployed over 38,000 fuel cell systems, and has become the largest buyer of liquid hydrogen, having built and operated a hydrogen network across North America.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies, fuel cell/battery hybrid technologies, and associated hydrogen storage and dispensing infrastructure from which multiple products are available. A fuel cell is an electrochemical device that combines hydrogen and oxygen to produce electricity and heat without combustion. Hydrogen is derived from multiple sources. The majority of liquid hydrogen in the United States is produced using the steam methane reforming process and utilizing by-product hydrogen from chlor alkali production. By-product hydrogen from a chlor alkali plant is considered to be low carbon hydrogen and in some cases, considered green hydrogen, depending on the source of electricity and geographic location. We source a significant amount of liquid hydrogen based on the chlor alkali process today. Additionally, we manufacture and sell fuel cell products to replace batteries and diesel generators in stationary backup power applications. These products have proven valuable with telecommunications, transportation and utility customers as robust, reliable and sustainable power solutions.

We provide and continue to develop commercially-viable hydrogen and fuel cell solutions for 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. In June of 2020, Plug Power completed the acquisitions of United Hydrogen Group, Inc. and Giner ELX, Inc. in line with the Company's hydrogen vertical integration strategy, with plans to have more than 50% of the hydrogen used by the Company to be green by 2024. These acquisitions further enhance Plug Power's position in the hydrogen industry with capabilities in generation, liquefaction and distribution of hydrogen fuel complementing its industry-leading position in the design, construction, and operation of customer-facing hydrogen fueling stations. These acquisitions establish a pathway for Plug Power to transition from low-carbon to zero-carbon hydrogen solutions.

Our current products and services include:

GenDrive: GenDrive is our hydrogen fueled PEM fuel cell system providing power to material handling electric vehicles, including class 1, 2, 3 and 6 electric forklifts and ground support equipment;

GenFuel: GenFuel is our 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;

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; and

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 the Plug Power MEA (membrane electrode assembly), a critical component of the fuel cell stack used in zero-emission fuel cell electric vehicle engines, in which Plug Power is the largest producer in North America.

We provide our products worldwide through our direct product sales force, and by leveraging relationships with original equipment manufacturers and their dealer networks. We manufacture our commercially-viable products in Latham, NY, Rochester, NY and Spokane, WA and support liquid hydrogen generation and logistics in Charleston, TN.

Liquidity

Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, growth in equipment leased to customers under long-term arrangements, funding the growth in our GenKey “turn-key” solution, which includes the installation of our customers’ hydrogen infrastructure as well as production and delivery of the hydrogen fuel, continued development and expansion of our products, payment of lease/financing obligations under sale/leaseback financings, and the repayment or refinancing of our long-term debt. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments; attaining and expanding positive gross margins across all product lines; the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of developing marketing and distribution channels; the ability of our customers to obtain financing to support commercial transactions; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers and to repay or refinance our long-term debt, and the terms of such agreements that may require us to pledge or restrict substantial amounts of our cash to support these financing arrangements; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the timing and costs of product development and introductions; the extent of our ongoing and new research and development programs; and changes in our strategy or our planned activities. If we are unable to fund our operations with positive cash flows and cannot obtain external financing, we may not be able to sustain future operations. As a result, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

We have experienced and continue to experience negative cash flows from operations and net losses. The Company incurred net losses attributable to common stockholders of $85.5 million and $67.2 million for the nine months ended September 30, 2020 and 2019, respectively, and had an accumulated deficit of $1.4 billion at September 30, 2020.

We have historically funded our operations primarily through public and private offerings of equity and debt, as well as short-term borrowings, long-term debt and project financings. The Company believes that its current working capital and cash anticipated to be generated from future operations, as well as borrowings from lending and project financing sources and proceeds from equity and debt offerings, including our at-the-market offering, will provide sufficient liquidity to fund operations for at least one year after the date the financial statements are issued. There is no guarantee that future funding will be available if and when required or at terms acceptable to the Company. This projection is based on our current expectations regarding new project financing and product sales and service, cost structure, cash burn rate and other operating assumptions.

During the nine months ended September 30, 2020, net cash used in operating activities was $156.9 million, consisting primarily of a net loss attributable to the Company of $85.5 million, and net outflows from fluctuations in working capital and other assets and liabilities of $96.3 million. The changes in working capital primarily were related to increases and decreases in various current asset and liability accounts. As of September 30, 2020, we had cash and cash equivalents of $448.1 million and net working capital of $514.2 million. By comparison, at December 31, 2019, we had cash and cash equivalents of $139.5 million and net working capital of $162.5 million.

Net cash used in investing activities for the nine months ended September 30, 2020 totaled $71.7 million and included net cash paid for acquisitions, purchases of intangible assets, purchases of property, plant and equipment, and outflows associated with materials, labor, and overhead 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.

Net cash provided by financing activities for the nine months ended September 30, 2020 totaled $590.6 million and primarily resulted from the issuance of shares of common stock and convertible senior notes, and proceeds from borrowing on long-term debt, offset by the repurchase of convertible senior notes and purchase of related capped calls.

Public and Private Offerings of Equity and Debt

<u>Common Stock Issuances</u>

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.

On April 13, 2020, the Company entered into an At Market Issuance Sales Agreement (ATM), with B. Riley FBR, Inc., as sales agent, or FBR, pursuant to which the Company may offer and sell, from time to time through FBR, shares of Company common stock having an aggregate offering price of up to $75.0 million. As of the date of this filing, the Company has not issued any shares of common stock pursuant to the ATM.

In December 2019, the Company issued and sold in a registered public offering an aggregate of 46 million shares of its common stock at a purchase price of $2.75 per share for net proceeds of approximately $120.4 million.

Prior to December 31, 2019, the Company entered into a previous ATM with FBR, which was terminated in the fourth quarter of 2019. Under this ATM, for the nine months ended September 30, 2019, the Company issued 6.3 million shares of common stock, resulting in net proceeds of $14.6 million.

In March 2019, the Company issued and sold in a registered direct offering an aggregate of 10 million shares of its common stock at a purchase price of $2.35 per share for net proceeds of approximately $23.5 million.

<u>Convertible Senior Notes</u>

In May 2020, the Company issued $212.8 million in aggregate principal amount of 3.75% convertible senior notes due 2025, which we refer to herein as the 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 5.5% Convertible Senior Notes due 2023, which we refer to herein as 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 October 2020, $28.0 million of the remaining 5.5% Convertible Senior Notes converted into 12.2 million shares of common stock.

In September 2019, the Company issued a $40.0 million in aggregate principal amount of 7.5% convertible senior note due 2023, which we refer to herein as the 7.5% Convertible Senior Note. The Company's total obligation, net of interest accretion, due to the holder was $48.0 million. The total net proceeds from this offering, after deducting costs of the issuance, were $39.1 million. On July 1, 2020, the note automatically converted fully into 16.0 million shares of common stock.

Operating and Finance Leases

The Company enters into sale/leaseback agreements with various financial institutions to facilitate the Company's commercial transactions with key customers. The Company sells certain fuel cell systems and hydrogen infrastructure to the financial institutions and leases the equipment back to support certain customer locations and to fulfill its varied Power Purchase Agreements (PPAs). Transactions completed under the sale/leaseback arrangements are generally accounted for as operating leases and therefore the sales of the fuel cell systems and hydrogen infrastructure are recognized as revenue. In connection with certain sale/leaseback transactions, the financial institutions require the Company to maintain cash balances in restricted accounts securing the Company's finance obligations. Cash received from customers under the PPAs is used to make payments against the Company's finance obligations. As the Company performs under these agreements, the required restricted cash balances are released, according to a set schedule. The total remaining lease payments to financial institutions under these agreements at September 30, 2020 was $332.8 million, $286.2 million of which were secured with restricted cash, security deposits backing letters of credit, and pledged service escrows.

The Company has varied master lease agreements with Wells Fargo Equipment Finance, Inc., or Wells Fargo, to finance the Company's commercial transactions with various customers. The Wells Fargo lease agreements were entered into during 2017, 2018, 2019 and 2020. Pursuant to the lease agreements, the Company sells fuel cell systems and hydrogen infrastructure to Wells Fargo and then leases them back and operates them at Walmart sites. The Company has a customer guarantee for a large portion of the transactions entered into in connection with such lease agreements. The Wells Fargo lease agreements required letters of credit totaling approximately $78.8 million for the unguaranteed portion as of September 30, 2020. The total remaining lease liabilities owed to Wells Fargo were $114.3 million at September 30, 2020.

Over recent years, including in 2019, the Company has entered into master lease agreements with multiple institutions such as Key Equipment Finance (KeyBank), SunTrust Equipment Finance & Lease Corp. (now known as Truist Bank), First American Bancorp, Inc. (First American), Crestmark Equipment Finance (Crestmark) and U.S. Bank. During the nine months ended September 30 2020, the Company entered into additional lease agreements with KeyBank, First American, Truist Bank, Crestmark and U.S. Bank. Similar to the Wells Fargo lease agreements, the primary purpose of these agreements is to finance commercial transactions with varied customers. Most of the transactions with these financial institutions required cash collateral for the unguaranteed portions totaling $189.9 million as of September 30, 2020. Similar to the Wells Fargo lease agreements, in many cases the Company has a customer guarantee for a large portion of the transactions. The total remaining lease liabilities owed to these financial institutions were $218.5 million at September 30, 2020.

Long-Term Debt

In March 2019, the Company entered into a loan and security agreement (Loan Agreement) with Generate Lending, LLC (Generate Capital) pursuant to which the Company borrowed $85.0 million (Term Loan Facility). The initial proceeds of the loan were used to pay in full the Company's long-term debt and accrued interest of $17.6 million under the loan agreement with NY Green Bank, a Division of the New York State Energy Research & Development Authority, and terminate approximately $50.3 million of certain equipment leases with Generate Plug Power SLB II, LLC as well as repurchase the associated leased equipment. In April 2019 and November 2019, the Company borrowed an additional $15.0 million and $20.0 million, respectively, under the Term Loan Facility with Generate Capital at 12% interest to fund working capital for ongoing deployments and other general corporate purposes. On March 31, 2020, the outstanding balance was $107.5 million. The principal and interest payments are paid primarily by restricted cash.

On May 6, 2020, the Company and Generate amended the Loan Agreement to, among other things, (i) provide an incremental term loan facility in the amount of $50.0 million, which has been fully funded, (ii) provide for additional, incremental term loans in an aggregate amount not to exceed $50.0 million, which are available to the Company in Generate Capital's sole discretion, (iii) reduce the interest rate on all loans to 9.50% from 12.00% per annum, and (iv) extend the maturity date to October 31, 2025 from October 6, 2022. In the third quarter of 2020, the Company borrowed an additional $50.0 million under the amended Loan Agreement. See Note 8, Long-Term Debt, for additional information. Based on the amortization schedule as September 30, 2020, the outstanding balance of $185.0 million under the Term Loan Facility must be fully paid by October 31, 2025.

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.

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, filed for the fiscal year ended December 31, 2019.

The information presented in the accompanying unaudited interim condensed consolidated balance sheets as of December 31, 2019 has been derived from the Company's December 31, 2019 audited consolidated financial statements.

Leases

The Company is a lessee in noncancelable (1) operating leases, primarily related to sale/leaseback transactions with financial institutions for deployment of the Company's products at certain customer sites, and (2) finance leases, also primarily related to sale/leaseback transactions with financial institutions for similar commercial purposes. The Company accounts for leases in accordance with Accounting Standards Codification (ASC) Topic 842, *Leases* (ASC Topic 842), as amended.

The Company determines if an arrangement is or contains a lease at contract inception. The Company recognizes a right of use (ROU) asset and a lease liability (i.e. finance obligation) at the lease commencement date. For operating leases, the lease liability is initially measured at the present value of the unpaid lease payments at the lease commencement date. For finance leases, the lease liability is initially measured in the same manner and date as for operating leases, and is subsequently measured at amortized cost using the effective interest method.

Key estimates and judgments include how the Company determines (1) the discount rate it uses to discount the unpaid lease payments to present value, (2) the lease term and (3) the lease payments.

- ASC Topic 842 requires a lessee to discount its unpaid lease payments using the interest rate implicit in the lease or, if that rate cannot be readily determined, its incremental borrowing rate. Generally, the Company cannot determine the interest rate implicit in the lease because it does not have access to the lessor's estimated residual value or the amount of the lessor's deferred initial direct costs. Therefore, the Company generally uses its incremental borrowing rate as the discount rate for the lease. The Company's incremental borrowing rate for a lease is the rate of interest it would have to pay on a collateralized basis to borrow an amount equal to the lease payments under similar terms.

- The lease term for all of the Company's leases includes the noncancelable period of the lease, plus any additional periods covered by either a Company option to extend (or not to terminate) the lease that the Company is reasonably certain to exercise, or an option to extend (or not to terminate) the lease controlled by the lessor.

- Lease payments included in the measurement of the lease liability comprise fixed payments, and the exercise price of a Company option to purchase the underlying asset if the Company is reasonably certain to exercise the option.

The ROU asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for lease payments made at or before the lease commencement date, plus any initial direct costs incurred less any lease incentives received. For operating leases, the ROU asset is subsequently measured throughout the lease term at the carrying amount of the lease liability, plus initial direct costs, plus (minus) any prepaid (accrued) lease payments, less the unamortized balance of lease incentives received. Lease expense for lease payments is recognized on a straight-line basis over the lease term.

For finance leases, the ROU asset is subsequently amortized using the straight-line method from the lease commencement date to the earlier of the end of the useful life of the underlying asset or the end of the lease term unless the lease transfers ownership of the underlying asset to the Company or the Company is reasonably certain to exercise an option to purchase the underlying asset. In those cases, the ROU asset is amortized over the useful life of the underlying asset. Amortization of the ROU asset is recognized and presented separately from interest expense on the lease liability. The Company's leases do not contain variable lease payments.

ROU assets for operating and finance leases are periodically reviewed for impairment losses. The Company uses the long-lived assets impairment guidance in ASC Subtopic 360-10, *Property, Plant, and Equipment – Overall*, to determine whether an ROU asset is impaired, and if so, the amount of the impairment loss to recognize. No impairment losses have been recognized to date.

The Company monitors for events or changes in circumstances that require a reassessment of its leases. When a reassessment results in the remeasurement of a lease liability, a corresponding adjustment is made to the carrying amount of the corresponding ROU asset.

Operating and finance lease ROU assets are presented within leased property, net on the unaudited interim condensed consolidated balance sheets. The current portion of operating and finance lease liabilities is included in finance obligations within current liabilities and the long-term portion is presented in finance obligations within noncurrent liabilities on the unaudited interim condensed consolidated balance sheets.

The Company has elected not to recognize ROU assets and lease liabilities for short-term leases that have a lease term of 12 months or less. The Company has elected to apply the short-term lease recognition and measurement exemption for other classes of leased assets. The Company recognizes the lease payments associated with its short-term leases as an expense on a straight-line basis over the lease term.

Revenue Recognition

The Company enters into contracts that may contain one or a combination of fuel cell systems and infrastructure, installation, maintenance, spare parts, fuel delivery and other support services. Contracts containing fuel cell systems and related infrastructure may be sold or provided to customers under a PPA, discussed further below.

The Company does not include a right of return on its products other than rights related to standard warranty provisions that permit repair or replacement of defective goods. The Company accrues for anticipated standard warranty costs at the same time that revenue is recognized for the related product, or when circumstances indicate that warranty costs will be incurred, as applicable.

Revenue is measured based on the transaction price specified in a contract with a customer, subject to the allocation of the transaction price to distinct performance obligations as discussed below. The Company recognizes revenue when it satisfies a performance obligation by transferring a product or service to a customer.

The Company accounts for each distinct performance obligation within its arrangements as a separate unit of accounting if the items under the performance obligation have value to the customer on a standalone basis. The Company considers a performance obligation to be distinct and have a standalone value if the customer can benefit from the good or service either on its own or together with other resources readily available to the customer and the Company's promise to transfer the goods or service to the customer is separately identifiable from other promises in the contract. The Company allocates revenue to each distinct performance obligation based on relative standalone selling prices.

Payment terms for sales of fuel cells, infrastructure and service to customers are typically 30 to 90 days. Sale/leaseback transactions with financial institutions are invoiced and collected upon transaction closing. Service is prepaid upfront in a majority of the arrangements. The Company does not adjust the transaction price for a significant financing component when the performance obligation is expected to be fulfilled within a year.

In 2017, in separate transactions, the Company issued to each of Amazon and Walmart warrants to purchase shares of the Company's common stock. The Company presents the provision for common stock warrants within each revenue-related line item on the unaudited interim consolidated statements of operations. This presentation reflects a discount that those common stock warrants represent, and therefore revenue is net of these non-cash charges. The provision of common stock warrants is allocated to the relevant revenue-related line items based upon the expected mix of the revenue for each respective contract. See Note 12, Warrant Transaction Agreements, for more details.

Nature of goods and services

The following is a description of principal activities from which the Company generates its revenue.

(i) Sales of Fuel Cell Systems and Related Infrastructure

Revenue from sales of fuel cell systems and related infrastructure represents sales of our GenDrive units, GenSure stationary backup power units, as well as hydrogen fueling infrastructure.

The Company considers comparable list prices, as well as historical average pricing approaches to determine standalone selling prices for GenDrive fuel cells. The Company uses observable evidence from similar products in the market to determine standalone selling prices for GenSure stationary backup power units and hydrogen fueling infrastructure. The determination of standalone selling prices of the Company's performance obligations requires significant judgment, including continual assessment of pricing approaches and available observable evidence in the market. Once relative standalone selling prices are determined, the Company proportionately allocates the transaction price to each performance obligation within the customer arrangement. The allocated transaction price related to fuel cell systems and spare parts is recognized as revenue at a point in time which usually occurs at shipment (and occasionally upon delivery). Revenue on hydrogen infrastructure installations is generally recognized at the point at which transfer of control passes to the customer, which usually occurs upon customer acceptance of the hydrogen infrastructure. In certain instances, control of hydrogen infrastructure installations transfers to the customer over time, and the related revenue is recognized over time as the performance obligation is satisfied. The Company uses an input method to determine the amount of revenue to recognize during each reporting period based on the Company's efforts to satisfy the performance obligation.

(ii) Services performed on fuel cell systems and related 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. The transaction price allocated to services as discussed above is generally recognized as revenue over time on a straight-line basis over the expected service period.

In substantially all of its commercial transactions, the Company sells extended maintenance contracts that generally provide for a five to ten year service period from the date of product installation in exchange for an up-front payment. Services include monitoring, technical support, maintenance and services that provide for 97% to 98% uptime of the fleet. These services are accounted for as a separate performance obligation, and accordingly, revenue generated from these transactions, subject to the proportional allocation of transaction price, is deferred and recognized as revenue over the term of the contract, generally on a straight-line basis. Additionally, the Company may enter into annual service and extended maintenance contracts that are billed monthly. Revenue generated from these transactions is recognized as revenue on a straight-line basis over the term of the contract. Costs are recognized as incurred over the term of the contract. Sales of spare parts are included within service revenue on the unaudited interim consolidated statements of operations. When costs are projected to exceed revenues over the life of the extended maintenance contract, an accrual for loss contracts is recorded. Costs are estimated based upon historical experience and consider the estimated impact of the Company's cost reduction initiatives. The actual results may differ from these estimates.

Upon expiration of the extended maintenance contracts, customers either choose to extend the contract or switch to purchasing spare parts and maintaining the fuel cell systems on their own.

(iii) Power Purchase Agreements

Revenue from PPAs primarily represents payments received from customers who make monthly payments to access the Company's GenKey solution.

When fuel cell systems and related infrastructure are provided to customers through a PPA, revenues associated with these agreements are treated as rental income and recognized on a straight-line basis over the life of the agreements.

In conjunction with entering into a PPA with a customer, the Company may enter into sale/leaseback transactions with third-party financial institutions, whereby the fuel cells, a majority of the related infrastructure and, in some cases, service are sold to the third-party financial institution and leased back to the Company through either an operating or finance lease.

Certain of the Company's sale/leaseback transactions with third-party financial institutions are required to be accounted for as finance leases. As a result, no upfront revenue was recognized at the closing of these transactions and a finance obligation for each lease was established. The fuel cell systems and related infrastructure that are provided to customers through these PPAs are classified as leased property, net in the unaudited interim condensed consolidated balance sheets. Costs to service the leased property, depreciation of the leased property, and other related costs are included in cost of PPA revenue in the unaudited interim condensed consolidated statements of operations. Interest cost associated with finance leases is presented within interest and other expense, net in the unaudited interim condensed consolidated statements of operations.

The Company also has sale/leaseback transactions with financial institutions, which were required to be accounted for as operating leases. The Company has lease obligations associated with these sale/leaseback agreements with financial institutions paid over the term of the agreements. At inception of these sale/lease transactions, the Company records a right of use asset value which is amortized over the term of the lease and recognized in conjunction with the interest expense on the obligation collectively as rental expense. Rental expense is recognized on a straight-line basis over the life of the agreements and is characterized as cost of PPA revenue on the unaudited interim condensed consolidated statements of operations.

The Company includes all lease and non-lease components (i.e., maintenance services) related to PPAs within PPA revenue.

To recognize revenue, the Company, as lessee, is required to determine whether each sale/leaseback arrangement meets operating lease criteria. As part of the assessment of these criteria, the Company estimates certain key inputs to the associated calculations such as: 1) discount rate it uses to discount the unpaid lease payments to present value and 2) useful life of the underlying asset(s):

- ASC Topic 842 requires a lessee to discount its unpaid lease payments using the interest rate implicit in the lease or, if that rate cannot be readily determined, its incremental borrowing rate. Generally, the Company cannot determine the interest rate implicit in its leases because it does not have access to the lessor's estimated residual value or the amount of the lessor's deferred initial direct costs. Therefore, the Company generally uses its incremental borrowing rate to estimate the discount rate for each lease.

- In order for a lease to be classified as an operating lease, the lease term cannot exceed 75% (major part) of the estimated useful life of the leased asset. The average estimated useful life of the fuel cells is 10 years, and the average estimated useful life of the hydrogen infrastructure is 20 years. These estimated useful lives are compared to the term of each lease to ensure that 75% of the estimated useful life of the assets is not exceeded which allows the Company to meet the operating lease criteria.

(iv) Fuel Delivered to Customers

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. Fuel is delivered to customers under stand-ready arrangement, with no long-term commitment.

The Company purchases hydrogen fuel from suppliers in certain cases (and produces hydrogen onsite) and sells to its customers upon delivery. Revenue and cost of revenue related to this fuel is recorded as dispensed and is included in the respective "Fuel delivered to customers" lines on the unaudited interim consolidated statements of operations.

Contract costs

The Company expects that incremental commission fees paid to employees as a result of obtaining sales contracts are recoverable and therefore the Company capitalizes them as contract costs.

Capitalized commission fees are amortized on a straight-line basis over the period of time which the transfer of goods or services to which the assets relate occur, typically ranging from 5 to 10 years. Amortization of the capitalized commission fees is included in selling, general and administrative expenses.

The Company recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period of the assets that the Company otherwise would have recognized is one year or less. These costs are included in selling, general and administrative expenses.

Cash Equivalents

For purposes of the unaudited interim condensed consolidated statements of cash flows, the Company considers all highly-liquid debt instruments with original maturities of three months or less to be cash equivalents. At September 30, 2020, cash equivalents consisted of money market accounts. The Company's cash and cash equivalents are deposited with financial institutions located in the United States and may at times exceed insured limits.

Equity Instruments – Common Stock Warrants

Common stock warrants that meet certain applicable requirements of ASC Subtopic 815-40, *Derivatives and Hedging – Contracts in Entity's Own Equity*, and other related guidance, including the ability of the Company to settle the warrants without the issuance of registered shares or the absence of rights of the grantee to require cash settlement, are accounted for as equity instruments. The Company classifies these equity instruments within additional paid-in capital on the unaudited interim condensed consolidated balance sheets.

Common stock warrants accounted for as equity instruments represent the warrants issued to Amazon and Walmart as discussed in Note 12, Warrant Transaction Agreements. The Company adopted Financial Accounting Standards Board (FASB) Accounting Standards Update 2019-08, *Compensation – Stock Compensation (Topic 718) and Revenue from Contracts with Customers (Topic 606)* (ASU 2019-08), which requires entities to measure and classify share-based payment awards granted to a customer by applying the guidance under Topic 718, as of January 1, 2019. As a result, the amount recorded as a reduction of revenue is measured based on the grant-date fair value of the warrants. Except for the third tranche, the fair value of all warrants was measured at January 1, 2019, the adoption date of ASU 2019-08.

In order to calculate warrant charges, the Company uses the Black-Scholes pricing model, which requires key inputs including volatility and risk-free interest rate and certain unobservable inputs for which there is little or no market data, requiring the Company to develop its own assumptions. The Company estimates the fair value of unvested warrants, considered to be probable of vesting. Based on this estimated fair value, the Company determines warrant charges, which are recorded as a reduction of revenue in the unaudited interim condensed consolidated statement of operations.

Use of Estimates

The unaudited interim condensed consolidated financial statements of the Company have been prepared in conformity with U.S. generally accepted accounting principles, which require management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the unaudited interim condensed consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

Reclassifications

Reclassifications are made, whenever necessary, to prior period financial statements to conform to the current period presentation. As of September 30, 2020, there have been no such reclassifications.

Recent Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In June 2016, *Accounting Standards Update (ASU) 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, was issued. Also, In April 2019, *Accounting Standards Update (ASU) 2019-04, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, was issued to make improvements to updates 2016-01, *Financial Instruments – Overall* (Subtopic 825-10), 2016-13, *Financial Instruments – Credit Losses* (Topic 326) and 2017-12, *Derivatives and Hedging* (Topic 815). ASU 2016-13 significantly changes how entities account for credit losses for financial assets and certain other instruments, including trade receivables and contract assets, that are not measured at fair value through net income. The ASU requires a number of changes to the assessment of credit losses, including the utilization of an expected credit loss model, which requires consideration of a broader range of information to estimate expected credit losses over the entire lifetime of the asset, including losses where probability is considered remote. Additionally, the standard requires the estimation of lifetime expected losses for trade receivables and contract assets that are classified as current. The Company adopted these standards effective January 1, 2020 and determined the impact of the standards to be immaterial to the consolidated financial statements.

In April 2019, *Accounting Standards Update (ASU) 2019-04, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, was issued to make improvements to updates 2016-01, *Financial Instruments – Overall* (Subtopic 825-10), 2016-13, *Financial Instruments – Credit Losses* (Topic 326) and 2017-12, *Derivatives and Hedging* (Topic 815). The Company adopted this standard effective January 1, 2020 and determined the impact of this standard to be immaterial to the consolidated financial statements.

In January 2017, *Accounting Standards Update (ASU) 2017-04, Intangibles – Goodwill and Other (Topic 350)*, was issued to simplify how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The Company adopted this standard effective January 1, 2020.

In August 2016, *Accounting Standards Update (ASU) 2016-15, Statement of Cash Flows (Topic 230)s: Classification of Certain Cash Receipts and Cash Payments*, was issued to reduce the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The Company adopted this standard in 2019 and determined the impact of this standard to be immaterial to the consolidated financial statements.

Recently Issued and Not Yet Adopted Accounting Pronouncements

In August 2020, *Accounting Standards Update (ASU) 2020-06, Debt – Debt With Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity,* was issued to address issues identified as a result of the complexity associated with applying GAAP for certain financial instruments with characteristics of liabilities and equity. This update is effective after December 15, 2021. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In March 2020, *Accounting Standards Update (ASU) 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, was issued to provide temporary optional expedients and exceptions to the GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates. This update is effective starting March 12, 2020 and the Company may elect to apply the amendments prospectively through December 31, 2022. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In March 2020, *Accounting Standards Update (ASU) 2020-03, Codification Improvements to Financial Instruments*, was issued to make various codification improvements to financial instruments to make the standards easier to understand and apply by eliminating inconsistencies and providing clarifications. This update will be effective at various dates as described in this ASU. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In December 2019, *Accounting Standards Update (ASU) 2019-12, Simplifying the Accounting for Income Taxes*, was issued to identify, evaluate, and improve areas of GAAP for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. This update will be effective beginning after December 15, 2020. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

3. Acquisitions

Giner ELX, Inc. Acquisition

On June 22, 2020, the Company acquired 100% of the outstanding shares of Giner ELX, Inc. (Giner ELX). Giner ELX is developer of electrolysis hydrogen generators which is used for on-site refueling of hydrogen fuel cells.

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

Cash	$ 25,820
Plug Power Stock	19,263
Contingent consideration	7,790
Total consideration	52,873

The contingent consideration represents the estimated, preliminary fair value associated with earn-out payments of $16.0 million that the sellers are eligible to receive. Of the total earnout consideration, $8.0 million is related to the achievement of the Allagash earn-out, $2.0 million is associated with the receipt of certain customer opportunities (purchase orders or other contracts) by December 31, 2021, and $6.0 million is associated with the achievement of certain revenue targets for years 2021 through 2023. The Allagash earn-out is achieved when the Company has produced at least two PEM electrolyzer stacks of one megawatt each, utilizing the dry build process and meets certain technical specifications as more fully described in the merger agreement. To be fully paid, the Allagash earn-out needs to be satisfied by July 31, 2023 and is reduced by approximately 8.33% each month beyond this date. In addition to the above, should the earn-out revenue exceed 150% of the 2023 target, the sellers will receive warrants with a value of $5.0 million and if the earn-out revenue exceeds 200% of the 2023 revenue target, the sellers will receive warrants with a value of $10.0 million. The warrants are exercisable within two years of issuance.

In connection with the Giner ELX acquisition, the Company revised the acquisition-date fair value of contingent consideration liabilities which resulted in an increase in other liabilities and goodwill of $0.7 million for the three months ended September 30, 2020.

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):

Accounts receivable	$	1,237
Inventory		4,108
Prepaid expenses and other assets, net of deferred tax liability		(4,707)
Property, plant and equipment		596
Identifiable intangibles		29,930
Accounts payable, accrued expenses and other liabilities		(2,136)
Deferred revenue		(2,348)
Total net assets acquired, excluding goodwill		26,680

The preliminary fair value of acquired identified intangible assets were calculated with the assistance of an independent valuator and were determined through a variety of valuation techniques.

Identifiable intangibles consisted of developed technology, non-compete agreements, estimated in-process research and development (IPR&D), and customer relationships.

The fair value of acquired developed technology and non-complete agreements was nominal.

The fair value of the acquired IPR&D totaling $29.0 million was calculated using the multi-period excess earnings method (MPEEM) approach which is a variant of the income approach. 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. Therefore, to determine cash flow from the exploitation of IPR&D, one must deduct the related expenses incurred for the exploitation of other assets used for the generation of overall cash flow and revenues. The fair value of IPR&D was estimated by discounting the net cash flow derived from the expected revenues attributable to the acquired IPR&D. The fair value of the acquired customer relationships totaling $0.4 million was calculated using a distributor method approach, which is a variant of the MPEEM under the income approach. The fair value of wet stack technology totaling $0.4 million was determined using the relief from royalty method.

In addition to identifiable intangible asset, the fair value of the deferred revenue was determined using a cost build-up approach. The direct cost of fulfilling the obligation plus a normal profit margin was used to determine the value of the assumed deferred revenue liability.

Included in the purchase consideration are three contingent earn-out payments (as described above): the Allagash earn-out, the customer opportunities, and the revenue targets. Due to the nature of the Allagash and customer opportunities, as outlined in the purchase agreement, a scenario based method (SBM) was used to value these contingent payments as the payments are milestone based in nature. The revenue targets are achieved when certain revenue thresholds are met, and the catch-up provision creates path-dependency. As such, the revenue targets were valued using Monte Carlo Simulation.

Included in Giner ELX's net assets acquired are net deferred tax liabilities of $6.1 million. In connection of the acquisition of these net deferred tax liabilities, the Company reduced its valuation allowance by $5.2 million and recognized a tax benefit $5.2 million during the nine months ended September 30, 2020.

Goodwill associated with the Giner ELX acquisition was calculated as follows (in thousands):

Consideration paid	$ 52,873
Less: net assets acquired	(26,680)
Total goodwill recognized	26,193

The goodwill consists of the Company's increased capabilities in green hydrogen supply through the production of electrolyzers. The synergies with the Company's production of hydrogen storage and dispensing equipment is important to the Company as the demand for green hydrogen increases.

United Hydrogen Group Inc. Acquisition

On June 18, 2020, the Company acquired 100% of the outstanding shares of United Hydrogen Group Inc. (UHG). UHG produces and sells liquid hydrogen.

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

Cash	$ 19,293
Plug Power Stock	30,410
Contingent consideration	1,110
Total consideration	50,813

Included in cash and common stock in the above table is $1.0 million of cash and $6.5 million of common stock that was paid in April 2020 to purchase a convertible note in UHG. This convertible note included terms that allowed for reduction of the purchase price if the Company was to complete the acquisitions. As such, this note was cancelled in conjunction with the closing of this acquisition.

A portion of the purchase price of UHG was in the form of contingent consideration. The contingent consideration is contingent on future performance related to the expansion of the liquefication capacity of the Charleston, Tennessee liquid hydrogen plant (the Charleston Plant). The Company's liability for this contingent consideration was measured at fair value based on the Company's expectations of achieving the expansion milestone. The expected performance was assessed by management which was discounted to present value in order to derive a fair value of the contingent consideration.

In accordance with the merger agreement, the Company is obligated to pay $1.5 million by June 30, 2021 once the liquefication capacity of the Charleston Plant is complete to the UHG's stockholders. Due to the level of progress made as of the reporting date, it is estimated that a payout will be made. As a result, the Company has recorded $1.1 million as the fair value of the contingent consideration.

The Company's liability for contingent consideration was preliminarily measured and estimated at fair value based on unobservable inputs, and was considered a level 3 financial instrument. The fair value of the liability determined was primarily driven by the Company's expectations of reaching the performance milestone. The expected milestone of expansion of the liquefication capacity of the Charleston Plant was discounted to present value in order to derive a fair value of the contingent consideration. The primary inputs of the calculation were the probabilities of achieving the milestone and a discount rate.

In connection with the UHG acquisition, the Company finalized the valuation of an existing customer contract and long-term debt which resulted in an increase in other liabilities of $1.9 million, a decrease in long-term debt of $1.7 million, and an increase in goodwill of $0.2 million for the three months ended September 30, 2020.

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):

Accounts receivable	444
Inventory	89
Prepaid expenses and other assets	1,152
Property, plant and equipment	41,244
Leased property	796
Identifiable intangibles	2,338
Long-term debt	(11,336)
Other liabilities	(15,757)
Accounts payable, accrued expenses, deferred revenue and finance obligations	(4,631)
Total net assets acquired, excluding goodwill	14,339

The preliminary fair value of acquired identified intangible assets were calculated with the assistance of an independent valuation firm and were determined through a variety of valuation techniques.

Identifiable intangibles consisted of developed technology, as described below in Note 7, Intangible Assets. The fair value of the developed technology totaling $2.3 million was calculated using the relief from royalty approach which is a variant of the income approach. The application of the relief from royalty approach involves estimating the value of an intangible asset by quantifying the present value of the stream of market derived royalty payments that the owner of the intangible asset is exempted or 'relieved' from paying.

Additionally the Company estimated the fair value of an unfavorable customer contract. The fair value of the acquired unfavorable customer contract was calculated using a with and with-out analysis which is a variant of the income approach. Cash flows were calculated using pricing per terms of the existing contract and then compared to cash flows using expected market pricing. The difference between the two cash flows was used to determine the fair value of the contract.

UHG is eligible to receive earn-out payments, contingent on the company achieving certain milestones (successful completion of construction and achieving a defined capacity/production level). Due to the milestone nature of the payments, a scenario based method (SBM) was used to value these contingent payments.

Goodwill associated with the UHG acquisition was calculated as follows (in thousands):

Consideration paid	$ 50,813
Less: net assets acquired	(14,339)
Total goodwill recognized	36,474

Goodwill consists of the Company's ability to expand liquid hydrogen manufacturing capability with an established management team. The Company now has capabilities in liquid hydrogen generation, liquefaction and distribution logistics, which is important in a growing hydrogen market.

For both UHG and Giner ELX, the above estimates are preliminary in nature and subject to adjustments. Any necessary adjustments will be finalized within one year from the date of acquisition. Substantially all the receivables acquired are expected to be collectible. We have not identified any material unrecorded pre-acquisition contingencies where the related asset or liability, or an impairment is probable and the amount can be reasonably estimated. Purchased goodwill is not expected to be deductible for tax purposes.

The change in the estimate of fair value of contingent consideration obligations during the third quarter of 2020 was primarily due to a change in the discount rate and a decrease in the discount period. The Company considers the impact to be immaterial to the unaudited interim condensed consolidated financial statements.

The results of the Giner ELX and UHG are included in the Company's results for the three months ended September 30, 2020 and are also included in the Company's results for the nine months ended 2020.

4. 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. Diluted earnings per share reflects the potential dilution that could occur if securities or other contracts to issue common stock (such as stock options, unvested restricted stock, common stock warrants, and preferred stock) were exercised or converted into common stock or resulted in the issuance of common stock (net of any assumed repurchases) that then shared in the earnings of the Company, if any. This is computed by dividing net earnings by the combination of dilutive common stock equivalents, which is comprised of shares issuable under outstanding warrants, the conversion of preferred stock, and the Company's share-based compensation plans, and the weighted average number of common stock outstanding during the reporting period. Since the Company is in a net loss position, all common stock equivalents would be considered to be 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 September 30,	
	2020	2019
Stock options outstanding (1)	14,434,983	23,597,871
Restricted stock outstanding (2)	5,992,974	4,333,560
Common stock warrants (3)	110,573,392	115,824,142
Preferred stock (4)	—	15,019,838
Convertible Senior Notes (5)	56,872,730	59,133,896
Number of dilutive potential shares of common stock	187,874,079	217,909,307

(1) During the three months ended September 30, 2020 and 2019, the Company granted 3,192,400 and 2,572,500 stock options, respectively. During the nine months ended September 30, 2020 and 2019, the Company granted 3,367,049 and 2,936,892 stock options, respectively.

(2) During the three months ended September 30, 2020 and 2019, the Company granted 3,095,000 and 2,562,500 shares of restricted stock, respectively. During the nine months ended September 30, 2020 and 2019, the Company granted 3,189,649 and 2,926,892 shares of restricted stock, respectively.

(3) In April 2017, the Company issued warrants to acquire up to 55,286,696 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. Of these warrants issued, none have been exercised as of September 30, 2020.

In July 2017, the Company issued warrants to acquire up to 55,286,696 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. Of these warrants issued, none have been exercised as of September 30, 2020.

(4) The preferred stock amount represents the dilutive potential on the shares of common stock as a result of the conversion of the Series C Redeemable Convertible Preferred Stock (Series C Preferred Stock) and Series E Redeemable Preferred Stock (Series E Preferred Stock), based on the conversion price of each preferred stock as of September 30, 2020, and 2019, respectively. Of the 10,431 shares of Series C Preferred Stock issued on May 16, 2013, all shares had been converted to common stock as of September 30, 2020. On November 1, 2018, the Company issued 35,000 shares of Series E Preferred Stock. As of December 31, 2019, 30,462 shares of the Series E Preferred Stock had been converted to common stock and 4,038 shares were redeemed for cash. The remaining 500 shares of Series E Preferred Stock were converted to common stock in January 2020.

(5) In March 2018, the Company issued the 5.5% Convertible Senior Notes. In September 2019, the Company issued the $7.5% Convertible Senior Note, which was fully converted into 16.0 million shares on July 1, 2020. In May 2020, the Company issued the 3.5% Convertible Senior Notes and repurchased $66.3 million of the 5.5% Convertible Senior Notes. See Note 9, Convertible Senior Notes.

5. Inventory

Inventory as of September 30, 2020 and December 31, 2019 consisted of the following (in thousands):

	September 30, 2020	December 31, 2019
Raw materials and supplies - production locations	$ 85,924	$ 48,011
Raw materials and supplies - customer locations	10,007	9,241
Work-in-process	30,421	12,529
Finished goods	7,954	2,610
Inventory	$ 134,306	$ 72,391

6. Leased Property

Leased property at September 30, 2020 and December 31, 2019 consisted of the following (in thousands):

	September 30, 2020	December 31, 2019
Right of use assets - operating	$ 275,211	$ 198,068
Right of use assets - finance	42,161	41,475
Capitalized costs of lessor assets	51,814	41,465
Less: accumulated depreciation	(59,711)	(36,268)
Leased property, net	$ 309,475	$ 244,740

7. Intangible Assets

The gross carrying amount and accumulated amortization of the Company's acquired identifiable intangible assets as of September 30, 2020 were as follows (in thousands):

	Weighted Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Total
Acquired technology	10 years	$ 13,138	$ (3,601)	$ 9,537
Customer relationships, Backlog & Trademark	6 years	890	(258)	632
In process R&D	Indefinite	29,000	—	29,000
		$ 43,028	$ (3,859)	$ 39,169

The gross carrying amount and accumulated amortization of the Company's acquired identifiable intangible assets as of December 31, 2019 were as follows (in thousands):

	Weighted Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Total
Acquired technology	9 years	$ 8,244	$ (2,815)	$ 5,429
Customer relationships & Trademark	9 years	320	(210)	110
		$ 8,564	$ (3,025)	$ 5,539

The change in the gross carrying amount of the acquired technology from December 31, 2019 to September 30, 2020 was due to changes in foreign currency translation, acquisitions of UHG and Giner ELX, and accrual for American Fuel Cell (AFC) milestone payment payments, as discussed below.

In the second quarter of 2020, the Company's in-process research and development was related to the development of the dry build process associated with electrolyzer stacks, as part of acquisition of Giner ELX. The related intangible asset is not currently amortized, as research and development is ongoing. Upon completion of the dry build process, amortization will commence based upon the estimated useful life of the underlying asset. See Note 3 – Acquisitions, for more details.

Also, in the second quarter of 2020, the Company acquired technology as part of the acquisition of UHG. The technology relates to the chemical process of manufacturing liquid hydrogen from chlor-alkali waste stream. See Note 3 – Acquisitions, for more details.

In the second quarter of 2019, the Company acquired intellectual property from EnergyOr for $1.5 million. In addition, the Company agreed to pay the sellers a royalty based on future sales of relevant applications, not to exceed $3.0 million, by May 22, 2025. These royalties are added to the intangible asset balance, as incurred.

As part of the agreement to acquire the intellectual property from AFC, the Company shall pay AFC milestone payments not to exceed $2.9 million in total, if certain milestones associated with the production of components related to the acquired technology are met before April 2021. As of September 30, 2020, the Company paid $1.6 million and accrued $0.9 million in relation to the aforementioned milestones.

Amortization expense for acquired identifiable intangible assets was $0.3 million for the three months ended September 30, 2020 and $0.8 million for the nine months ended September 30, 2020. Amortization expense for the acquired identifiable assets was $0.2 million for the three months ended September 30, 2019 and $0.5 million for the nine months ended September 30, 2019.

Estimated amortization expense for subsequent years was as follows (in thousands):

Remainder of 2020	$	366
2021		1,464
2022		1,464
2023		1,464
2024 and thereafter		5,411
Total	$	10,169

8. Long-Term Debt

In March 2019, the Company, and its subsidiaries Emerging Power Inc. and Emergent Power Inc., entered into a loan and security agreement, as amended (the Loan Agreement), with Generate Lending, LLC (Generate Capital), providing for a secured term loan facility in the amount of $100.0 million (the Term Loan Facility). The Company borrowed $85.0 million under the Loan Agreement on the date of closing and borrowed an additional $15.0 million in April 2019 and $20 million in November 2019. A portion of the initial proceeds of the loan was used to pay in full the Company's long-term debt with NY Green Bank, a Division of the New York State Energy Research & Development Authority, including accrued interest of $17.6 million (the Green Bank Loan), and terminate approximately $50.3 million of certain equipment leases with Generate Plug Power SLB II, LLC and repurchase the associated leased equipment. In connection with this transaction, the Company recognized a loss on extinguishment of debt of approximately $0.5 million during the nine months ended September 30, 2019. This loss was recorded in gain (loss) on extinguishment of debt, in the Company's unaudited interim condensed consolidated statement of operations. Additionally, $1.7 million was paid to an escrow account related to additional fees due in connection with the Green Bank Loan if the Company does not meet certain New York State employment and fuel cell deployment targets by March 2021. Amount escrowed is recorded in short-term other assets on the Company's unaudited interim condensed consolidated balance sheets as of September 30, 2020. The Company presently expects to meet the targets as required under the arrangement. During the nine months ended September 30, 2020, the Company received $250 thousand from escrow related to the New York state employment targets.

Additionally, on May 6, 2020, the Company and its subsidiaries, Emerging Power, Inc. and Emergent Power, Inc., entered into a Fifth Amendment (the Amendment) to the Loan Agreement and Security Agreement, dated as of March 29, 2019, as amended (the Loan Agreement) with Generate Lending, LLC (Generate Capital). The Amendment amends the Loan Agreement to, among other things, (i) provide for an incremental term loan in the amount of $50.0 million, (ii) provide for additional, uncommitted incremental term loans in an aggregate amount not to exceed $50.0 million, which may become available to the Company in Generate Capital's sole discretion, (iii) reduce the interest rate on all loans to 9.50% from 12.00% per annum, and (iv) extend the maturity date to October 31, 2025 from October 6, 2022. The $50 million incremental term loan has been fully funded. In connection with the restructuring, the Company capitalized $1.0 million of origination fees and expensed $300 thousand in legal fees. In the third quarter of 2020, the Company borrowed an additional $50.0 million, under the amended Loan Agreement.

On September 30, 2020, the outstanding balance under the Term Loan Facility was $185.0 million with a 9.5% annual interest rate.

The Loan Agreement includes covenants, limitations, and events of default customary for similar facilities. Interest and a portion of the principal amount is payable on a quarterly basis. Principal payments will be funded in part by releases of restricted cash, as described in Note 16, Commitments and Contingencies. Based on the amortization schedule as of September 30, 2020, the outstanding balance of $185.0 million under the Term Loan Facility must be fully paid by October 31, 2025.

All obligations under the Loan Agreement are unconditionally guaranteed by Emerging Power Inc. and Emergent Power Inc. The Term Loan Facility is secured by substantially all of the Company's and the guarantor subsidiaries' assets, including, among other assets, all intellectual property, all securities in domestic subsidiaries and 65% of the securities in foreign subsidiaries, subject to certain exceptions and exclusions.

The Loan Agreement contains covenants, including, among others, (i) the provision of annual and quarterly financial statements, management rights and insurance policies and (ii) restrictions on incurring debt, granting liens, making acquisitions, making loans, paying dividends, dissolving, and entering into leases and asset sales and (iii) compliance with a collateral coverage covenant. The Loan Agreement also provides for events of default, including, among others, payment, bankruptcy, covenant, representation and warranty, change of control, judgment and material adverse effect defaults at the discretion of the lender. As of September 30, 2020, the Company was in compliance with all the covenants.

The Loan Agreement provides that if there is an event of default due to the Company's insolvency or if the Company fails to perform in any material respect the servicing requirements for fuel cell systems under certain customer agreements, which failure would entitle the customer to terminate such customer agreement, replace the Company or withhold the payment of any material amount to the Company under such customer agreement, then Generate Capital has the right to cause Proton Services Inc., a wholly owned subsidiary of the Company, to replace the Company in performing the maintenance services under such customer agreement.

As of September 30, 2020, the Term Loan Facility requires the principal balance as of each of the following dates not to exceed the following (in thousands):

December 31, 2020	$ 164,017
December 31, 2021	127,317
December 31, 2022	93,321
December 31, 2023	62,920
December 31, 2024	33,692
December 31, 2025	—

9. 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, which is referred to herein as the 3.75% Convertible Senior Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended, or 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.

At issuance in May 2020, the total net proceeds from the 3.75% Convertible Senior Notes were as follows:

	Amount (in thousands)
Principal amount	$ 212,463
Less initial purchasers' discount	(6,374)
Less cost of related capped calls	(16,253)
Less other issuance costs	(617)
Net proceeds	$ 189,219

The 3.75% Convertible Senior Notes bear interest at a rate of 3.75% per year, payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2020. The notes will mature on June 1, 2025, unless earlier converted, redeemed or repurchased in accordance with their terms.

The 3.75% Convertible Senior Notes are senior, unsecured obligations of the Company and rank senior in right of payment to any of the Company’s indebtedness that is expressly subordinated in right of payment to the notes, equal in right of payment to any of the Company’s existing and future liabilities that are not so subordinated, including the Company’s $100 million in aggregate principal amount of 5.5% Convertible Senior Notes due 2023, which is referred to herein as the 5.5% Convertible Senior Notes, effectively junior in right of payment to any of the Company’s secured indebtedness to the extent of the value of the collateral securing such indebtedness, and structurally subordinated to all indebtedness and other liabilities, including trade payables, of its current or future subsidiaries.

Holders of the 3.75% Convertible Senior Notes may convert their notes at their option at any time prior to the close of the business day immediately preceding December 1, 2024 in the following circumstances:

1) during any calendar quarter commencing after September 30, 2020, if the last reported sale price of the Company’s common stock exceeds 130% of the conversion price for each of at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter;

2) during the five business days after any five consecutive trading day period (such five consecutive trading day period, the measurement period) in which the trading price per $1,000 principal amount of the 3.75% Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company’s common stock and the conversion rate on each such trading day;

3) if the Company calls any or all of the 3.75% Convertible Senior Notes for redemption, any such notes that have been called for redemption may be converted at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

4) upon the occurrence of specified corporate events, as described in the indenture governing the 3.75% Convertible Senior Notes.

On or after December 1, 2024, the holders of the 3.75% Convertible Senior Notes may convert all or any portion of their notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions.

The initial conversion rate for the 3.75% Convertible Senior Notes will be 198.6196 shares of the Company's common stock per $1,000 principal amount of notes, which is equivalent to an initial conversion price of approximately $5.03 per share of the Company's common stock, subject to adjustment upon the occurrence of specified events. Upon conversion, the Company will pay or deliver, as applicable, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election.

In addition, following certain corporate events or following issuance of a notice of redemption, the Company will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event or convert its notes called for redemption during the related redemption period in certain circumstances.

The 3.75% Convertible Senior Notes will be redeemable, in whole or in part, at the Company's option at any time, and from time to time, on or after June 5, 2023 and before the 41st scheduled trading day immediately before the maturity date, at a cash redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest, if any, but only if the last reported sale price per share of the Company's common stock exceeds 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date the Company sends the related redemption notice, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company sends such redemption notice.

If the Company undergoes a "fundamental change" (as defined in the Indenture), holders may require the Company to repurchase their notes for cash all or any portion of their notes at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest, to, but excluding, the fundamental change repurchase date.

In accounting for the issuance of the 3.75% Convertible Senior Notes, the Company separated the notes into liability and equity components. The initial carrying amount of the liability component of approximately $75.2 million, net of costs incurred, was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component of approximately $130.3 million, net of costs incurred, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the 3.75% Convertible Senior Notes. The difference between the principal amount of the 3.75% Convertible Senior Notes and the liability component (the debt discount) is amortized to interest expense using the effective interest method over the term of the 3.75% Convertible Senior Notes. The effective interest rate is approximately 29.0%. The equity component of the 3.75% Convertible Senior Notes is included in additional paid-in capital in the unaudited interim condensed consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification.

We incurred transaction costs related to the issuance of the 3.75% Convertible Senior Notes of approximately $7.0 million, consisting of initial purchasers' discount of approximately $6.4 million and other issuance costs of $0.6 million. In accounting for the transaction costs, we allocated the total amount incurred to the liability and equity components using the same proportions as the proceeds from the 3.75% Convertible Senior Notes. Transaction costs attributable to the liability component were approximately $2.6 million, were recorded as debt issuance cost (presented as contra debt in the unaudited interim condensed consolidated balance sheets) and are being amortized to interest expense over the term of the 3.75% Convertible Senior Notes. The transaction costs attributable to the equity component were approximately $4.4 million and were netted with the equity component in stockholders' equity.

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

	September 30, 2020
Principal amounts:	
Principal	$ 212,463
Unamortized debt discount (1)	(129,101)
Unamortized debt issuance costs (1)	(2,425)
Net carrying amount	$ 80,937
Carrying amount of the equity component (2)	$ 130,249

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.

2) Included in the unaudited interim condensed consolidated balance sheets within additional paid-in capital, net of $4.4 million in equity issuance costs and associated income tax benefit of $19.0 million.

Based on the closing price of the Company's common stock of $13.41 on September 30, 2020, the if-converted value of the notes was greater than the principal amount. The estimated fair value of the note at September 30, 2020 was approximately $532.3 million. The Company utilized a Monte Carlo simulation model to estimate the fair value of the convertible debt. The simulation model is designed to capture the potential settlement features of the convertible debt, in conjunction with simulated changes in the Company's stock price over the term of the note, incorporating a volatility assumption of 75%. This is considered a Level 3 fair value measurement.

Capped Call

In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (3.75% Notes Capped Call) with certain counterparties at a price of $16.2 million. The 3.75% Notes Capped Call cover, 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 has been recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheet.

7.5% Convertible Senior Note

In September 2019, the Company issued $40.0 million aggregate principal amount of 7.5% Convertible Senior Note due on January 5, 2023, which is referred to herein as the 7.5% Convertible Senior Note, in exchange for net proceeds of $39.1 million, in a private placement to an accredited investor pursuant to Rule 144A under the Securities Act. There were no required principal payments prior to the maturity of the 7.5% Convertible Senior Note. Upon maturity of the 7.5% Convertible Senior Note, the Company was required to repay 120% of $40.0 million, or $48.0 million. The 7.5% Convertible Senior Note bore interest at 7.5% per year, payable quarterly in arrears on January 5, April 5, July 5 and October 5 of each year beginning on October 5, 2019 and was to mature on January 5, 2023 unless earlier converted or repurchased in accordance with its terms. The 7.5% Convertible Senior Note was unsecured and did not contain any financial covenants or any restrictions on the payment of dividends, or the issuance or repurchase of common stock by the Company.

On July 1, 2020, the 7.5% Convertible Senior Note automatically converted into 16.0 million shares of common stock.

5.5% Convertible Senior Notes

In March 2018, the Company issued $100.0 million in aggregate principal amount of 5.5% Convertible Senior Notes due on March 15, 2023, which is referred to herein as the 5.5% Convertible Senior Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act.

In May 2020, the Company used a portion of the net proceeds from the issuance of the 3.75% Convertible Senior Notes to finance the cash portion of the partial repurchase of the 5.5% Convertible Senior Notes, which consisted of a repurchase of approximately $66.3 million in aggregate principal amount of the 5.5% Convertible Senior Notes in privately-negotiated transactions for aggregate consideration of $128.9 million, consisting of approximately $90.2 million in cash and approximately 9.4 million shares of the Company's common stock. Of the $128.9 million in aggregate consideration, $35.5 million and $93.4 million were allocated to the debt and equity components, respectively, utilizing an effective discount rate of 29.8% to determine the fair value of the liability component. As of the repurchase date, the carrying value of the 5.5% Convertible Senior Notes that were repurchased, net of unamortized debt discount and issuance costs, was $48.7 million. The partial repurchase of the 5.5% Convertible Senior Notes resulted in a $13.2 million gain on early debt extinguishment. As of September 30, 2020, approximately $33.7 million aggregate principal amount of the 5.5% Convertible Senior Notes remained outstanding. In October 2020, $28.0 million of the remaining 5.5% Convertible Senior Notes converted into 12.2 million shares of common stock.

At issuance in March 2018, the total net proceeds from the 5.5% Convertible Senior Notes were as follows:

	Amount (in thousands)
Principal amount	$ 100,000
Less initial purchasers' discount	(3,250)
Less cost of related capped call and common stock forward	(43,500)
Less other issuance costs	(894)
Net proceeds	$ 52,356

The 5.5% Convertible Senior Notes bear interest at 5.5%, payable semi-annually in cash on March 15 and September 15 of each year. The 5.5% Convertible Senior Notes will mature on March 15, 2023, unless earlier converted or repurchased in accordance with their terms. The 5.5% Convertible Senior Notes are unsecured and do not contain any financial covenants or any restrictions on the payment of dividends, or the issuance or repurchase of common stock by the Company.

Each $1,000 principal amount of the 5.5% Convertible Senior Notes is convertible into 436.3002 shares of the Company's common stock, which is equivalent to a conversion price of approximately $2.29 per share, subject to adjustment upon the occurrence of specified events. Holders of these 5.5% Convertible Senior Notes may convert their 5.5% Convertible Senior Notes at their option at any time prior to the close of the last business day immediately preceding September 15, 2022, only under the following circumstances:

1) during any calendar quarter (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

2) during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price (as defined in the indenture governing the 5.5% Convertible Senior Notes) per $1,000 principal amount of 5.5% Convertible Senior Notes for each trading day of the measurement period was less

than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate for the 5.5% Convertible Senior Notes on each such trading day;

3) if the Company calls any or all of the 5.5% Convertible Senior Notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

4) upon the occurrence of certain specified corporate events, such as a beneficial owner acquiring more than 50% of the total voting power of the Company's common stock, recapitalization of the Company, dissolution or liquidation of the Company, or the Company's common stock ceases to be listed on an active market exchange.

On or after September 15, 2022, holders may convert all or any portion of their 5.5% Convertible Senior Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions.

Upon conversion of the 5.5% Convertible Senior Notes, the Company will pay or deliver, as the case may be, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election. While the Company plans to settle the principal amount of the 5.5% Convertible Senior Notes in cash subject to available funding at time of settlement, we currently use the if-converted method for calculating any potential dilutive effect of the conversion option on diluted net income per share, subject to meeting the criteria for using the treasury stock method in future periods.

The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued or unpaid interest. Holders who convert their 5.5% Convertible Senior Notes in connection with certain corporate events that constitute a "make-whole fundamental change" per the indenture governing the 5.5% Convertible Senior Notes or in connection with a redemption will be, under certain circumstances, entitled to an increase in the conversion rate. In addition, if the Company undergoes a fundamental change prior to the maturity date, holders may require the Company to repurchase for cash all or a portion of its 5.5% Convertible Senior Notes at a repurchase price equal to 100% of the principal amount of the repurchased 5.5% Convertible Senior Notes, plus accrued and unpaid interest.

The Company may not redeem the 5.5% Convertible Senior Notes prior to March 20, 2021. The Company may redeem for cash all or any portion of the 5.5% Convertible Senior Notes, at the Company's option, on or after March 20, 2021 if the last reported sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date on which the Company provides notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 5.5% Convertible Senior Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

In accounting for the issuance of the notes, the Company separated the 5.5% Convertible Senior Notes into liability and equity components. The initial carrying amount of the liability component of approximately $58.2 million, net of costs incurred, was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component of approximately $37.7 million, net of costs incurred, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the 5.5% Convertible Senior Notes. The difference between the principal amount of the 5.5% Convertible Senior Notes and the liability component (the debt discount) is amortized to interest expense using the effective interest method over the term of the 5.5% Convertible Senior Notes. The effective interest rate is approximately 16.0%. The equity component of the 5.5% Convertible Senior Notes is included in additional paid-in capital in the unaudited interim condensed consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification.

We incurred transaction costs related to the issuance of the 5.5% Convertible Senior Notes of approximately $4.1 million, consisting of initial purchasers' discount of approximately $3.3 million and other issuance costs of $0.9 million. In accounting for the transaction costs, we allocated the total amount incurred to the liability and equity components using the same proportions as the proceeds from the 5.5% Convertible Senior Notes. Transaction costs attributable to the liability component were approximately $2.4 million, were recorded as debt issuance cost (presented as contra debt in the unaudited interim condensed consolidated balance sheets) and are being amortized to interest expense over the term of the 5.5% Convertible Senior Notes. The transaction costs attributable to the equity component were approximately $1.7 million and were netted with the equity component in stockholders' equity.

The 5.5% Convertible Senior Notes consisted of the following (in thousands):

	September 30, 2020	December 31, 2019
Principal amounts:		
Principal	$ 33,660	$ 100,000
Unamortized debt discount (1)	(7,477)	(27,818)
Unamortized debt issuance costs (1)	(403)	(1,567)
Net carrying amount	$ 25,780	$ 70,615
Carrying amount of the equity component (2)	$ —	$ 37,702

1) Included in the unaudited interim condensed consolidated balance sheets within the 5.5% Convertible Senior Notes, net and amortized over the remaining life of the 5.5% Convertible Senior Notes using the effective interest rate method.

2) Included in the unaudited interim condensed consolidated balance sheets within additional paid-in capital, net of $1.7 million in equity issuance costs and associated income tax benefit of $9.2 million, at December 31, 2019.

Based on the closing price of the Company's common stock of $13.41 on September 30, 2020, the if-converted value of the 5.5% Convertible Senior Notes was greater than the principal amount. The estimated fair value of the 5.5% Convertible Senior Notes at September 30, 2020 and December 31, 2019 was approximately $195.3 million and $135.3 million, respectively. The Company utilized a Monte Carlo simulation model to estimate the fair value of the convertible debt. The simulation model is designed to capture the potential settlement features of the convertible debt, in conjunction with simulated changes in the Company's stock price over the term of the 5.5% Convertible Senior Notes, incorporating a volatility assumption of 75%. This is considered a Level 3 fair value measurement.

Capped Call

In conjunction with the pricing of the 5.5% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (5.5% Notes Capped Call) with certain counterparties at a price of $16.0 million. The 5.5% Notes Capped Call cover, subject to anti-dilution adjustments, the aggregate number of shares of the Company's common stock that underlie the initial 5.5% Convertible Senior Notes and is generally expected to reduce the potential dilution to the Company's common stock upon any conversion of the 5.5% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted 5.5% Convertible Senior 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 5.5% Notes Capped Call is initially $3.82 per share, which represents a premium of 100% over the last then-reported sale price of the Company's common stock of $1.91 per share on the date of the transaction and is subject to certain adjustments under the terms of the 5.5% Notes Capped Call. The 5.5% Notes Capped Call becomes exercisable if the conversion option is exercised.

The net cost incurred in connection with the 5.5% Notes Capped Call has been recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets.

In conjunction with the partial repurchase of the 5.5% Convertible Senior Notes, the Company terminated 100% of the 5.5% Notes Capped Call on June 5, 2020. As a result of the termination, the Company received $24.2 million which is recorded in additional paid-in capital.

Common Stock Forward

In connection with the issuance of the 5.5% Convertible Senior Notes, the Company also entered into a forward stock purchase transaction, or 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. In connection with the issuance of the 3.75% Convertible Senior Notes, 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 has been 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.

In conjunction with the partial payoff of the 5.5% Convertible Senior Notes, the Common Stock Forward's expiration date was extended to June 1, 2025.

The book values of the 5.5% Notes Capped Call and Common Stock Forward are not remeasured.

During October 2020, the Common Stock Forward was partially settled and, as a result, the Company received 3.5 million shares of its common stock.

10. Stockholders' Equity

Preferred Stock

The Company has authorized 5.0 million shares of preferred stock, par value $0.01 per share. The Company's certificate of incorporation provides that shares of preferred stock may be issued from time to time in one or more series. The Company's Board of Directors is authorized to fix the voting rights, if any, designations, powers, preferences, qualifications, limitations and restrictions thereof, applicable to the shares of each series.

The Company has authorized Series A Junior Participating Cumulative Preferred Stock, par value $0.01 per share. As of September 30, 2020 and December 31, 2019, there were no shares of Series A Junior Participating Cumulative Preferred Stock issued and outstanding. See Note 11, Redeemable Convertible Preferred Stock, for a description of the Company's Series C Preferred Stock and Series E Preferred Stock.

Common Stock and Warrants

The Company has one class of common stock, par value $.01 per share. Each share of the Company's common stock is entitled to one vote on all matters submitted to stockholders.

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.

In December 2019, the Company issued and sold in a registered public offering an aggregate of 46 million shares of its common stock at a purchase price of $2.75 per share for net proceeds of approximately $120.4 million.

In March 2019, the Company issued and sold in a registered direct offering an aggregate of 10 million shares of the Company's common stock at a purchase price of $2.35 per share. The net proceeds to the Company were approximately $23.5 million.

There were 390,197,748 and 303,378,515 shares of common stock outstanding as of September 30, 2020 and December 31, 2019, respectively.

During 2017, warrants to purchase up to 110,573,392 shares of common stock were issued in connection with transaction agreements with Amazon and Walmart, as discussed in Note 12, Warrant Transaction Agreements. At September 30, 2020 and December 31, 2019, 40,737,564 and 26,188,434 of the warrant shares had vested, respectively, and are therefore exercisable. These warrants are measured at fair value as of January 1, 2019 and are classified as equity instruments on the unaudited interim condensed consolidated balance sheets.

At Market Issuance Sales Agreement

On April 13, 2020, the Company entered into the Sales Agreement with FBR as sales agent, pursuant to which the Company may offer and sell, from time to time through FBR, shares of Company common stock having an aggregate offering price of up to $75.0 million. As of the date of this filing, the Company has not issued any shares of common stock pursuant to the Sales Agreement.

11. Redeemable Convertible Preferred Stock

Series E Preferred Stock

In November 2018, the Company issued an aggregate of 35,000 shares of the Company's Series E Preferred Stock in a private placement to certain accredited investors in reliance on Section 4(a)(2) of the Securities Act. The Company received net proceeds of approximately $30.9 million, after deducting placement agent fees and expenses payable by the Company. The Company is required to redeem the Series E Preferred Stock in thirteen monthly installments in the amount of $2.7 million each from May 2019 through May 2020. The Company had zero and 500 shares of Series E Preferred Stock outstanding at September 30, 2020 and 2019, respectively. The remaining 500 shares were converted to common stock in January 2020.

Series C Preferred Stock

In April 2020, 870 shares of Series C Preferred Stock were converted to 923,819 shares of common stock. In May 2020, the remaining the 1,750 shares of Series C Preferred Stock were converted into 1,858,256 shares of common stock.

12. Warrant Transaction Agreements

Amazon Transaction Agreement

On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the Amazon Transaction Agreement), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, warrants to acquire up to 55,286,696 shares of the Company's common stock (the Amazon Warrant Shares), subject to certain vesting events described below. The Company and Amazon entered into the 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 existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Company's fuel cell technology. The vesting of the Amazon Warrant Shares is linked to payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to the existing commercial agreements.

The majority of the Amazon Warrant Shares will vest based on Amazon's payment of up to $600.0 million to the Company in connection with Amazon's purchase of goods and services from the Company. The first tranche of 5,819,652 Amazon Warrant Shares vested upon the execution of the Amazon Transaction Agreement. Accordingly, $6.7 million, the fair value of the first tranche of Amazon Warrant Shares, was recognized as selling, general and administrative expense during 2017. All future provision for common stock warrants is measured based on their grant-date fair value and recorded as a charge against revenue. The second tranche of 29,098,260 Amazon Warrant Shares vested in four installments of 7,274,565 Amazon Warrant Shares each time Amazon or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $200.0 million in the aggregate. The exercise price for the first and second tranches of Amazon Warrant Shares is $1.1893 per share. The third tranche of 20,368,784 Amazon Warrant Shares will vest in eight installments of 2,546,098 Amazon Warrant Shares each time Amazon or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of Amazon Warrant Shares is $13.81, which is an amount per share equal to ninety percent (90%) of the 30-day volume weighted average share price of the common stock as of the final vesting date of the second tranche of Amazon Warrant Shares. The Amazon Warrant Shares are exercisable through April 4, 2027. The Amazon Warrant Shares provide for net share settlement that, if elected by the holders, will reduce the number of shares issued upon exercise to reflect net settlement of the exercise price. The Amazon Warrant Shares provide for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. These warrants are classified as equity instruments.

At September 30, 2020 and December 31, 2019, 27,643,347 and 20,368,782 of the Amazon Warrant Shares had vested, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the three months ended September 30, 2020 and 2019 was $17.3 million and $1.0 million, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the nine months ended September 30, 2020 and 2019 was $22.0 million and $2.0 million, respectively.

During the third quarter of 2020, approximately $23.8 million of recorded revenue from Amazon was constrained by the tranche 3 of the Amazon Warrant Shares. An additional 7,274,565 Amazon Warrant Shares vested on November 2, 2020, representing the final vesting of tranche 2, resulting in cumulative vesting in 34,917,912 Warrant Shares since the execution of the Amazon Transaction Agreement. In accordance with terms of the Amazon Transaction Agreement as described above, upon final vesting of tranche 2, the tranche 3 Amazon Warrant Shares exercise price was determined to be $13.81 per share. Based on the exercise price of the third tranche of the Amazon Warrant Shares, among other things, the fair value of the 20,368,784 tranche 3 Amazon Warrant Shares is estimated to be $10.60 each, compared to the fair value of tranche 2 Amazon Warrant Shares of $1.05 each.

The Company also recorded a provision for losses of $4.3 million in the third quarter of 2020 related to Amazon service contracts, caused primarily by the increase in the value of the tranche 3 warrants, driven by recent increases in the Company's stock price.

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 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 is linked to 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 majority of the Walmart Warrant Shares will vest based on Walmart's payment of up to $600.0 million to the Company in connection with Walmart's purchase of goods and services from the Company. The first tranche of 5,819,652 Walmart Warrant Shares vested upon the execution of the Walmart Transaction Agreement. Accordingly, $10.9 million, the fair value of the first tranche of Walmart Warrant Shares, was recorded as a provision for common stock warrants and presented as a reduction to revenue on the unaudited interim condensed consolidated statements of operations during 2017. All future provision for common stock warrants is measured based on their grant-date fair value and recorded as a charge against revenue. The second tranche of 29,098,260 Walmart Warrant Shares will vest in four installments of 7,274,565 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $200.0 million in the aggregate. The exercise price for the first and second tranches of Walmart Warrant Shares is $2.1231 per share. After Walmart has made payments to the Company totaling $200.0 million, the third tranche of 20,368,784 Walmart Warrant Shares will vest in eight installments of 2,546,098 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the

Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of Walmart Warrant Shares will be an amount per share equal to ninety percent (90%) of the 30-day volume weighted average share price of the common stock as of the final vesting date of the second tranche of Walmart Warrant Shares, provided that, with limited exceptions, the exercise price for the third tranche will be no lower than $1.1893. The Walmart Warrant Shares are exercisable through July 20, 2027.

The Walmart Warrant Shares provide for net share settlement that, if elected by the holders, will reduce the number of shares issued upon exercise to reflect net settlement of the exercise price. The Walmart Warrant Shares provide for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. These warrants are classified as equity instruments.

At September 30, 2020 and December 31, 2019, 13,094,217 and 5,819,652 of the Walmart Warrant Shares had vested, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended September 30, 2020 and 2019 was $1.3 million and $0.5 million, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the nine months ended September 30, 2020 and 2019 was $3.2 million and $1.7 million, respectively.

13. Revenue

Disaggregation of revenue

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

Major products/services lines

	Three months ended September 30,		Nine months ended September 30,	
	2020	2019	2020	2019
Sales of fuel cell systems	$ 51,864	$ 29,775	$ 107,779	$ 67,566
Sale of hydrogen installations and other infrastructure	31,664	9,102	43,882	12,551
Services performed on fuel cell systems and related infrastructure	6,829	6,205	19,586	17,889
Power Purchase Agreements	6,704	6,595	19,854	19,114
Fuel delivered to customers	9,831	7,649	24,536	21,320
Other	97	135	235	135
Net revenue	$ 106,989	$ 59,461	$ 215,872	$ 138,575

Contract balances

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

	September 30, 2020	December 31, 2019
Accounts receivable	$ 113,133	$ 25,448
Contract assets	12,029	13,251
Contract liabilities	76,526	43,480

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 within prepaid expenses and other current 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). Contract liabilities also include advance consideration received from customers prior to delivery of products. These amounts are included within deferred revenue on the accompanying unaudited interim condensed consolidated interim balance sheets.

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

Contract assets		**Nine months ended September 30, 2020**
Transferred to receivables from contract assets recognized at the beginning of the period	$	(10,249)
Revenue recognized and not billed as of the end of the period		9,027
Net change in contract assets		(1,222)

Contract liabilities		**Nine months ended September 30, 2020**
Increases due to cash received, net of amounts recognized as revenue during the period	$	58,732
Contract liabilities assumed as part of acquisitions		18,107
Revenue recognized that was included in the contract liability balance as of the beginning of the period		(43,793)
Net change in contract liabilities	$	33,046

Estimated future revenue

The following table includes estimated revenue expected to be recognized in the future (sales of fuel cell systems and hydrogen installations are expected to be recognized as revenue within one year; sales of services and PPAs are expected to be recognized as revenue over five to seven years) related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period, excluding provision for common stock warrants as it is not readily estimable as it depends on the valuation of the common stock warrants when revenue is recognized (in thousands):

		September 30, 2020
Sales of fuel cell systems	$	50,285
Sale of hydrogen installations and other infrastructure		62,705
Services performed on fuel cell systems and related infrastructure		86,536
Power Purchase Agreements		177,721
UHG molecule		20,680
Other rental income		3,705
Total estimated future revenue	$	401,632

Contract costs

Contract costs consist of capitalized commission fees and other expenses related to obtaining or fulfilling a contract.

Capitalized contract costs at September 30, 2020 and December 31, 2019 were $1.3 million and $0.5, respectively. Expense related to the amortization of capitalized contract costs was not significant for the three or nine months ended September 30, 2020 and 2019.

14. Income Taxes

The Company recognized an income tax benefit for the three and nine months ended September 30, 2020 of $6.5 million and $24.2 million, respectively. Income tax benefit for the three and nine months ended September 30, 2020 included $6.5 million and $19.0 million, respectively resulting from the intraperiod tax allocation rules under ASC Topic 740-20, *Intraperiod Tax Allocation*, under which the Company recognized an income tax benefit resulting from a source of future taxable income attributable to the net credit to additional paid-in capital related to the issuance of the 3.75% Convertible Senior Notes, offset by the partial extinguishment of the 5.5% Convertible Senior Notes. In addition, the Company recorded $5.2 million of income tax benefit for the nine months ended September 30, 2020 related to the recognition of net deferred tax liabilities in connection with the Giner ELX acquisition, which resulted in a corresponding reduction in our deferred tax asset valuation allowance. The Company has not changed its overall conclusion with respect to the need for a valuation allowance against its net deferred tax assets, which remain fully reserved.

The remaining net deferred tax asset generated from the Company's current period 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 also recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

15. Fair Value Measurements

During 2020, the Company had no financial instruments measured at fair value on a recurring basis.

The following table summarizes the amounts recorded on the unaudited interim condensed consolidated statement of operations for financial instruments measured at fair value on a recurring basis for the three and nine months ended September 30, 2019 (in thousands):

	Total	Quoted Prices in Active Markets for Identical Items (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Other Unobservable Inputs (Level 3)
Common stock warrant liability	$ 7	$ —	$ —	$ 7

The Company's common stock warrant liability represents the only asset or liability classified financial instrument measured at fair value on a recurring basis in the unaudited interim condensed consolidated balance sheets. The fair value measurement is determined by using Level 3 inputs due to the lack of active and observable markets that can be used to price identical assets. Level 3 inputs are unobservable inputs and should be used to determine fair value only when observable inputs are not available. Unobservable inputs should be developed based on the best information available in the circumstances, which might include internally generated data and assumptions being used to price the asset or liability.

Fair value of the common stock warrant liability is based on the Black-Scholes pricing model which is based, in part, upon unobservable inputs for which there is little or no market data, requiring the Company to develop its own assumptions.

The Company used the following assumptions to measure the fair value of its liability-classified common stock warrants:

	Nine months ended September 30, 2019
Risk-free interest rate	1.99% - 2.51%
Volatility	22.62% - 74.93%
Expected average term	0.03 - 0.53

There was no expected dividend yield for the warrants granted.

16. Commitments and Contingencies

Lessor Obligations

As of September 30, 2020, the Company had noncancelable operating leases (as lessor), primarily associated with assets deployed at customer sites. These leases expire over the next one to nine years. Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of September 30, 2020 were as follows (in thousands):

Remainder of 2020	$ 8,272
2021	34,436
2022	32,665
2023	30,043
2024	26,660
2025 and thereafter	$ 49,351
Total future minimum lease payments	$ 181,427

Lessee Obligations

As of September 30, 2020, the Company had operating and finance 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 eight years. Minimum rent payments under operating and finance 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.

In prior periods, the Company entered into sale/leaseback transactions that were accounted for as finance leases and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions at September 30, 2020 and December 31, 2019 was $25.9 million and $31.7 million, respectively. The fair value of the finance obligation approximated the carrying value as of both September 30, 2020 and December 31, 2019.

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 September 30, 2020 was $144.3 million, of which $22.2 million and $122.1 million were classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheets. The outstanding balance of this obligation at December 31, 2019 was $109.4 million, of which $15.5 million and $93.9 million were classified as short-term and long-term, respectively. The amount is amortized using the effective interest method. The fair value of this finance obligation approximated the carrying value as of September 30, 2020.

The Company has a finance lease associated with its property and equipment in Latham, New York. A liability relating to this lease of $2.8 million has been recorded as a finance obligation in the unaudited interim condensed consolidated balance sheet as of September 30, 2020. The fair value of this finance obligation approximated the carrying value as of September 30, 2020.

Future minimum lease payments under operating and finance leases (with initial or remaining lease terms in excess of one year) as of September 30, 2020 were as follows (in thousands):

	Operating Leases	Finance Leases	Other Leased Property	Total Finance Obligations
Remainder of 2020	$ 14,639	$ 2,546	$ 186	$ 17,371
2021	58,505	9,276	590	68,371
2022	58,480	4,975	573	64,028
2023	55,655	3,149	549	59,353
2024	54,203	16,154	632	70,989
2025 and thereafter	71,304	—	1,174	72,478
Total future minimum lease payments	312,786	36,100	3,704	352,590
Less imputed lease interest	(84,903)	(10,190)	(947)	(96,040)
Sale of future services	144,292	—	—	144,292
Total lease liabilities	$ 372,175	$ 25,910	$ 2,757	$ 400,842

Rental expense for all operating leases was $14.6 million and $7.8 million for the three months ended September 30, 2020 and 2019, respectively. Rental expense for all operating leases was $40.1 million and $19.9 million for the nine months ended September 30, 2020 and 2019, respectively.

The gross profit on sale/leaseback transactions for all operating leases was $24.5 million and $44.2 million for the three and nine months ended September 30, 2020, respectively, and $14.8 million and $30.9 million for the three and nine months ended September 30, 2019, respectively. Right of use assets obtained in exchange for new operating lease liabilities was $41.1 million and $86.5 million for the three and nine months ended September 30, 2020, respectively, and $38.4 million and $72.9 million for the three and nine months ended September 30, 2019.

At both September 30, 2020 and December 31, 2019, security deposits associated with sale/leaseback transactions were $5.8 million and were included in other assets in the unaudited interim condensed consolidated balance sheets.

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

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Cash payments (in thousands)	$ 40,500	$ 19,222

	September 30, 2020	2019
Weighted average remaining lease term (years)	5.5	5.25
Weighted average discount rate	12.1%	12.1%

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 unaudited interim consolidated statement of operations). Finance lease costs were as follows (in thousands):

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Amortization of right of use asset	$ 2,655	$ 2,308
Interest on finance obligations	1,778	3,194
Total finance lease cost	$ 4,433	$ 5,502

Right of use assets obtained in exchange for new finance lease liabilities was $41.1 million and $86.5 million for the three and nine months ended September 30, 2020, respectively, and $38.4 million and $72.9 million for the three and nine months ended September 30, 2019, respectively.

Other information related to the finance leases are presented in the following tables:

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Cash payments (in thousands)	$ 7,847	$ 57,659

	As of September 30, 2020	2019
Weighted average remaining lease term (years)	3.36	3.09
Weighted average discount rate	7.8%	11.1%

Restricted Cash

As security for the above noted sale/leaseback agreements, cash of $133.4 million was required to be restricted as of September 30, 2020, which restricted cash will be released over the lease term. As of September 30, 2020, the Company also had letters of credit backed by security deposits totaling $149.3 million for the above noted sale/leaseback agreements.

In addition, as of September 30, 2020, the Company also had letters of credit in the aggregate amount of $0.5 million associated with a finance obligation from the sale/leaseback of its building. We consider cash collateralizing this letter of credit as restricted cash.

Litigation

Legal matters are defended and handled in the ordinary course of business. The Company has established accruals for matters for which management considers a loss to be probable and reasonably estimable. It is the opinion of management that facts known at the present time do not indicate that such litigation, after taking into account insurance coverage and the aforementioned accruals, will have a material adverse impact on our results of operations, financial position, or cash flows.

Concentrations of Credit Risk

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

At September 30, 2020, one customer comprised approximately 84.5% of the total accounts receivable balance. At December 31, 2019, two customers comprised approximately 63.4% of the total accounts receivable balance.

For the nine months ended September 30, 2020, 71.8% of total consolidated revenues were associated primarily with two customers. For the nine months ended September 30, 2019, 62.3% of total consolidated revenues were associated primarily with three customers. 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.

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 report, and our audited consolidated financial statements and notes thereto included in our Annual Report on Form 10-K, filed for the fiscal year ended December 31, 2019. 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 Securities Exchange Act of 1934, as amended (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 "anticipate," "believe," "could," "continue," "estimate," "expect," "intend," "may," "should," "will," "would," "plan," "projected" 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 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 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 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 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 maintain an effective system of internal controls;
- 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 of delays in or not completing our product development goals;
- 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 gross margin 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, including GenDrive, GenSure and GenKey systems;
- 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;
- the cost of complying with current and future federal, state and international governmental regulations;
- our subjectivity to legal proceedings and legal compliance;
- the risks associated with past and potential future acquisitions; 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, below. 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 Power," the "Company," "we," "our" or "us" refer to Plug Power Inc., including as the context requires, its subsidiaries.

Overview

As a leading provider of comprehensive hydrogen fuel cell turnkey solutions, Plug Power Inc., or the Company, is seeking to build a green hydrogen economy. The Company is focused on hydrogen and fuel cell systems that are used to power electric motors primarily in the electric mobility and stationary power markets, given the ongoing paradigm shift in the power, energy, and transportation industries to address climate change, energy security, and meet sustainability goals. Plug Power created the first commercially viable market for hydrogen fuel cell, or the HFC technology. As a result, the Company has deployed over 38,000 fuel cell systems, and has become the largest buyer of liquid hydrogen, having built and operated a hydrogen network across North America.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies, fuel cell/battery hybrid technologies, and associated hydrogen storage and dispensing infrastructure from which multiple products are available. A fuel cell is an electrochemical device that combines hydrogen and oxygen to produce electricity and heat without combustion. Hydrogen is derived from multiple sources. The majority of liquid hydrogen in the United States is produced using the steam methane reforming process and utilizing by-product hydrogen from chlor alkali production. By-product hydrogen from a chlor alkali plant is considered to be low carbon hydrogen and in some cases, considered green hydrogen, depending on the source of electricity and geographic location. We source a significant amount of liquid hydrogen based on the chlor alkali process today. Additionally, we manufacture and sell fuel cell products to replace batteries and diesel generators in stationary backup power applications. These products have proven valuable with telecommunications, transportation and utility customers as robust, reliable and sustainable power solutions.

We provide and continue to develop commercially-viable hydrogen and fuel cell solutions for 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. In June of 2020, Plug Power completed the acquisitions of United Hydrogen Group, Inc. and Giner ELX, Inc. in line with the Company's hydrogen vertical integration strategy, with plans to have more than 50% of the hydrogen used by the Company to be green by 2024. These acquisitions further enhance Plug Power's position in the hydrogen industry with capabilities in generation, liquefaction and distribution of hydrogen fuel complementing its industry-leading position in the design, construction, and operation of customer-facing hydrogen fueling stations. These acquisitions establish a pathway for Plug Power to transition from low-carbon to zero-carbon hydrogen solutions.

Our current products and services include:

GenDrive: GenDrive is our hydrogen fueled PEM fuel cell system providing power to material handling electric vehicles, including class 1, 2, 3 and 6 electric forklifts and ground support equipment;

GenFuel: GenFuel is our 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;

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; and

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 the Plug Power MEA (membrane electrode assembly), a critical component of the fuel cell stack used in zero-emission fuel cell electric vehicle engines, in which Plug Power is the largest producer in North America.

We provide our products worldwide through our direct product sales force, and by leveraging relationships with original equipment manufacturers and their dealer networks. We manufacture our commercially-viable products in Latham, NY, Rochester, NY and Spokane, WA and support liquid hydrogen generation and logistics in Charleston, TN.

Recent Developments

COVID-19 Update

As a result of the COVID-19 pandemic, state governments—including those in New York and Washington, where our manufacturing facilities are located—have issued orders requiring businesses that do not conduct essential services to temporarily close their physical workplaces to employees and customers. We are currently deemed an essential business and, as a result, are exempt from these state orders, in their current form. In March 2020, we put in place a number of protective measures in response to the COVID-19 outbreak. These measures include the canceling of all commercial air travel and all other non-critical travel, requesting that employees limit non-essential personal travel, eliminating all but essential third-party access to our facilities, enhancing our facilities' janitorial and sanitary procedures, encouraging employees to work from home to the extent their job function enables them to do so, encouraging the use of virtual employee meetings, and providing staggered shifts and social distancing measures for those employees associated with manufacturing and service operations.

We cannot predict at this time the full extent to which COVID-19 will impact our business, results and financial condition, which will depend on many factors. We are staying in close communication with our manufacturing facilities, employees, customers, suppliers and partners, and acting to mitigate the impact of this dynamic and evolving situation, but there is no guarantee that we will be able to do so. Although as of the date hereof, we have not observed any material impacts to our supply of components, the situation is fluid. Many of the parts for our products are sourced from suppliers in China and the manufacturing situation in China remains variable. Supply chain disruptions could reduce the availability of key components, increase prices or both. Some of our customers, such as certain automotive manufacturers, have suspended operations at their facilities due to COVID-19. Accordingly, while those customers continue to pay for the leasing and servicing of our products, they are not purchasing hydrogen fuel. Other customers are essential businesses and remain in operation. Certain of these customers, such as Walmart, significantly increased their use of units and hydrogen fuel consumption as a result of COVID-19. In the nine months ended September 30, 2020, our services and power purchase agreement margins were negatively impacted by incremental service costs associated with increased usage of units at some of our primary customer sites. In addition, future changes in applicable government orders or regulations, or changes in the interpretation of existing orders or regulations, could result in further disruptions to our business that may materially and adversely affect our financial condition and results of operations.

Borrowings/August 2020 Equity Raise

In the third quarter of 2020, the Company borrowed an additional $50.0 million, under an amended loan agreement with Generate Lending, LLC.

Also, 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.

Amazon Warrants

At September 30, 2020 and December 31, 2019, 27,643,347 and 20,368,782 of the Amazon Warrant Shares had vested, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the three months ended September 30, 2020 and 2019 was $17.3 million and $1.0 million, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the nine months ended September 30, 2020 and 2019 was $22.0 million and $2.0 million, respectively.

During the third quarter of 2020, approximately $23.8 million of recorded revenue from Amazon was constrained by the tranche 3 of the Amazon Warrant Shares. An additional 7,274,565 Amazon Warrant Shares vested on November 2, 2020, representing the final vesting of tranche 2, resulting in cumulative vesting in 34,917,912 Warrant Shares since the execution of the Amazon Transaction Agreement. In accordance with terms of the Amazon Transaction Agreement as described above, upon final vesting of tranche 2, the tranche 3 Amazon Warrant Shares exercise price was determined to be $13.81 per share. Based on the exercise price of the third tranche of the Amazon Warrant Shares, among other things, the fair value of the 20,368,784 tranche 3 Amazon Warrant Shares is estimated to be $10.60 each, compared to the fair value of tranche 2 Amazon Warrant Shares of $1.05 each.

The Company also recorded a provision for losses of $4.3 million in the third quarter of 2020 related to Amazon service contracts, caused primarily by the increase in the value of the tranche 3 warrants, driven by recent increases in the Company's stock price.

Results of Operations

Our primary sources of revenue are from sales of fuel cell systems and related infrastructure, services performed on fuel cell systems and related infrastructure, Power Purchase Agreements (PPAs), and fuel delivered to customers. Revenue from sales of fuel cell systems and related infrastructure represents sales of our GenDrive units, GenSure stationary backup power units, as well as 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.

In 2017, in separate transactions, the Company issued to each of Amazon and 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. During the fourth quarter of 2019, the Company adopted ASU 2019-08, with retrospective adoption as of January 1, 2019. As a result, the amount recorded as a reduction of revenue was measured based on the grant-date fair value of the warrants. Previously, this amount was measured based on vesting date fair value with estimates of fair value determined at each financial reporting date for unvested warrant shares considered to be probable of vesting. Except for the third tranche, all existing unvested warrants are using a measurement date of January 1, 2019, the adoption date, in accordance ASU 2019-08.

The amount of provision for common stock warrants recorded as a reduction of revenue during the three and nine months ended September 30, 2020 and 2019, respectively, is shown in the table below (in thousands):

	Three months ended September 30, 2020	Three months ended September 30, 2019	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Sales of fuel cell systems and related infrastructure	$ (16,146)	$ (478)	$ (19,287)	$ (993)
Services performed on fuel cell systems and related infrastructure	(688)	(191)	(1,412)	(397)
Power Purchase Agreements	(758)	(325)	(1,887)	(1,032)
Fuel delivered to customers	(1,034)	(503)	(2,612)	(1,284)
Total	$ (18,626)	$ (1,497)	$ (25,198)	$ (3,706)

Net revenue, cost of revenue, gross profit (loss) and gross margin for the three and nine months ended September 30, 2020 and 2019, were as follows (in thousands):

	Three Months Ended September 30,				Nine Months Ended September 30,			
	Net Revenue	Cost of Revenue	Gross Profit/(Loss)	Gross Margin	Net Revenue	Cost of Revenue	Gross Profit/(Loss)	Gross Margin
For the period ended September 30, 2020:								
Sales of fuel cell systems and related infrastructure	$ 83,528	$ 68,509	$ 15,019	18.0 %	$ 151,661	$ 115,929	$ 35,732	23.6 %
Services performed on fuel cell systems and related infrastructure	6,829	7,074	(245)	(3.6)%	19,586	21,746	(2,160)	(11.0)%
Power Purchase Agreements	6,704	14,087	(7,383)	(110.1)%	19,854	42,034	(22,180)	(111.7)%
Fuel delivered to customers	9,831	14,172	(4,341)	(44.2)%	24,536	32,267	(7,731)	(31.5)%
Other	97	131	(34)	(35.1)%	235	275	(40)	(17.0)%
Total	$ 106,989	$ 103,973	$ 3,016	2.8 %	$ 215,872	$ 212,251	$ 3,621	1.7 %
For the period ended September 30, 2019:								
Sales of fuel cell systems and related infrastructure	$ 38,877	$ 24,990	$ 13,887	35.7 %	$ 80,117	$ 50,440	$ 29,677	37.0 %
Services performed on fuel cell systems and related infrastructure	6,205	6,461	(256)	(4.1)%	17,889	18,802	(913)	(5.1)%
Power Purchase Agreements	6,595	10,353	(3,758)	(57.0)%	19,114	28,064	(8,950)	(46.8)%
Fuel delivered to customers	7,649	9,160	(1,511)	(19.8)%	21,320	25,935	(4,615)	(21.6)%
Other	135	150	(15)	(11.1)%	135	150	(15)	(11.1)%
Total	$ 59,461	$ 51,114	$ 8,347	14.0 %	$ 138,575	$ 123,391	$ 15,184	11.0 %

Net Revenue

Revenue – sales of fuel cell systems and related infrastructure. Revenue from sales of fuel cell systems and related infrastructure 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.

Revenue from sales of fuel cell systems and related infrastructure for the three months ended September 30, 2020 increased $44.7 million, or 114.9%, to $83.5 million from $38.9 million for the three months ended September 30, 2019. Included within revenue was provision for common stock warrants of $16.1 million and $0.5 million for the three months ended September 30, 2020 and 2019, respectively. The main drivers for the increase in revenue were the increase in GenDrive units recognized as revenue, change in product mix, variations in customer programs, and an increase in hydrogen installations, offset partially by the increase in the provision for common stock warrants. There were 3,709 GenDrive units recognized as revenue during the three months ended September 30, 2020, compared to 1,513 for the three months ended September 30, 2019. There was hydrogen infrastructure revenue associated with 13 hydrogen sites during the three months ended September 30, 2020, compared to zero during the three months ended September 30, 2019.

Revenue from sales of fuel cell systems and related infrastructure for the nine months ended September 30, 2020 increased $71.5 million, or 89.3%, to $151.7 million from $80.1 million for the nine months ended September 30, 2019. Included within revenue was provision for common stock warrants of $19.3 million and $1.0 million for the nine months ended September 30, 2020 and 2019, respectively. The main drivers for the increase in revenue were the increase in GenDrive units recognized as revenue, change in product mix, variations in customer programs, and an increase in hydrogen installations, offset partially by the increase in the provision for common stock warrants. There were 7,217 GenDrive units recognized as revenue during the nine months ended September 30, 2020, compared to 6,058 for the nine months ended September 30, 2019. There was hydrogen infrastructure revenue associated with 18 hydrogen sites during the nine months ended September 30, 2020, compared to two during the nine months ended September 30, 2019.

Revenue – services performed on fuel cell systems and related 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 services performed on fuel cell systems and related infrastructure for the three months ended September 30, 2020 increased $0.6 million, or 10.1%, to $6.8 million as compared to $6.2 million for the three months ended September 30, 2019. Included within revenue was provision for common stock warrants of $0.7 million and $0.2 million for the three months ended September 30, 2020 and 2019, respectively. The main drivers for the increase in revenue was additional contractual revenue associated with higher utilization of GenDrive units and an increase in units under service maintenance contracts, partially offset by the increase in the provision for common stock warrants.

Revenue from services performed on fuel cell systems and related infrastructure for the nine months ended September 30, 2020 increased $1.7 million, or 9.5%, to $19.6 million as compared to $17.9 million for the nine months ended September 30, 2019. Included within revenue was provision for common stock warrants of $1.4 million and $0.4 million for the nine months ended September 30, 2020 and 2019, respectively. The main drivers for the increase in revenue was additional contractual revenue associated with higher utilization of GenDrive units and an increase in units under service maintenance contracts, partially offset by the increase in the provision for common stock warrants.

Revenue – Power Purchase Agreements. Revenue from PPAs represents payments received from customers for power generated through the provision of equipment and service. Revenue from PPAs for the three months ended September 30, 2020 increased $0.1 million, or 1.7%, to $6.7 million from $6.6 million for the three months ended September 30, 2019. Included within revenue was provision for common stock warrants of $0.8 million and $0.3 million for the three months ended September 30, 2020 and 2019, respectively. The increase in revenue from PPAs for the three months ended September 30, 2020 as compared to the three months ended September 30, 2019 was primarily attributable to the increase in units associated with PPAs, offset in part by the increase in the provision for common stock warrants.

Revenue from PPAs for the nine months ended September 30, 2020 increased $0.8 million, or 3.9%, to $19.9 million from $19.1 million for the nine months ended September 30, 2019. Included within revenue was provision for common stock warrants of $1.9 million and $1.0 million for the nine months ended September 30, 2020 and 2019, respectively. The increase in revenue from PPAs for the nine months ended September 30, 2020 as compared to the nine months ended September 30, 2019 was primarily attributable to the increase in units associated with PPAs, offset in part by the increase in the provision for common stock warrants.

Revenue – fuel delivered to customers. 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. Revenue associated with fuel delivered to customers for the three months ended September 30, 2020 increased $2.2 million, or

28.5%, to $9.8 million from $7.6 million for the three months ended September 30, 2019. Included within revenue was provision for common stock warrants of $1.0 million and $0.5 million for the three months ended September 30, 2020 and 2019, respectively. The increase in revenue was due to an increase in the number of sites with fuel contracts in 2020, compared to 2019, and an increase in the price of fuel, partially offset by the increase in the provision for common stock warrants.

Revenue associated with fuel delivered to customers for the nine months ended September 30, 2020 increased $3.2 million, or 15.1%, to $24.5 million from $21.3 million for the nine months ended September 30, 2019. Included within revenue was provision for common stock warrants of $2.6 million and $1.3 million for the nine months ended September 30, 2020 and 2019, respectively. The increase in revenue was due to an increase in the number of sites with fuel contracts in 2020, compared to 2019, an increase in the price of fuel and an increase in the provision for common stock warrants.

Cost of Revenue

Cost of revenue – sales of fuel cell systems and related infrastructure. Cost of revenue from sales of fuel cell systems and related infrastructure 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.

Cost of revenue from sales of fuel cell systems and related infrastructure for the three months ended September 30, 2020 increased 174.1%, or $43.5 million, to $68.5 million, compared to $25.0 million for the three months ended September 30, 2019. This increase was driven by the increase in GenDrive deployment volume and increase in hydrogen installations. There were 3,709 GenDrive units recognized as revenue during the three months ended September 30, 2020, compared to 1,513 for the three months ended September 30, 2019. Revenue associated with 13 hydrogen installations was recognized during the three months ended September 30, 2020, compared to zero during the three months ended September 30, 2019. Gross margin generated from sales of fuel cell systems and related infrastructure decreased to 18.0% for the three months ended September 30, 2020, compared to 35.7% for the three months ended September 30, 2019, primarily due to the increase in the provision for common stock warrants.

Cost of revenue from sales of fuel cell systems and related infrastructure for the nine months ended September 30, 2020 increased 129.8%, or $65.5 million, to $115.9 million, compared to $50.4 million for the nine months ended September 30, 2019. This increase was driven by the increase in GenDrive deployment volume and increase in hydrogen installations. There were 7,217 GenDrive units recognized as revenue during the nine months ended September 30, 2020, compared to 6,058 for the nine months ended September 30, 2019. Revenue associated with 13 hydrogen installations was recognized during the nine months ended September 30, 2020, compared to zero during the nine months ended September 30, 2019. Gross margin generated from sales of fuel cell systems and related infrastructure decreased to 23.6% for the nine months ended September 30, 2020, compared to 37.0% for the nine months ended September 30, 2019, primarily due to the increase in the provision for common stock warrants.

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. Cost of revenue from services performed on fuel cell systems and related infrastructure for the three months ended September 30, 2020 increased 9.5%, or $0.6 million, to $7.1 million, compared to $6.5 million for the three months ended September 30, 2019. Gross margin increased to (3.6)% for the three months ended September 30, 2020, compared to (4.1)% for the three months ended September 30, 2019, primarily due to program investments targeting performance improvements, offset by the increase in the provision for common stock warrants.

Cost of revenue from services performed on fuel cell systems and related infrastructure for the nine months ended September 30, 2020 increased 15.7%, or $2.9 million, to $21.7 million, compared to $18.8 million for the nine months ended September 30, 2019. Gross margin decreased to (11.0) % for the nine months ended September 30, 2020, compared to (5.1)% for the nine months ended September 30, 2019, primarily due to the increase in the provision for common stock warrants.

Cost of revenue – provision for loss contracts related to service. The Company also recorded a provision for loss contracts related to service of $4.3 million in the third quarter of 2020, caused by the increase in the value of tranche 3 warrants as compared to the value of tranche 2 warrants.

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. Cost of revenue from PPAs for the three months ended September 30, 2020 increased 36.1%, or $3.7 million, to $14.1 million from $10.4 million for the three months ended September 30, 2019. Gross margin decreased to (110.1)% for the three months ended September 30, 2020, as compared to (57.0)% for the three months ended September 30, 2019, primarily due to program investments targeting performance improvements, as well as incremental service costs during the quarter associated with increased usage of units at some of our primary customer sites caused by the COVID-19 pandemic and an increase in the provision for common stock warrants.

Cost of revenue from PPAs for the nine months ended September 30, 2020 increased 49.8%, or $14.0 million, to $42.0 million from $28.1 million for the nine months ended September 30, 2019. Gross margin decreased to (111.7)% for the nine months ended September 30, 2020, as compared to (46.8)% for the nine months ended September 30, 2019, primarily due to program investments targeting performance improvements, as well as incremental service costs during the nine months ended September 30, 2020 associated with increased usage of units at some of our primary customer sites caused by the COVID-19 pandemic and an increase in the provision for common stock warrants.

Cost of revenue – fuel delivered to customers. Cost of revenue from fuel delivered to customers 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 September 30, 2020 increased 54.7%, or $5.0 million, to $14.2 million from $9.2 million for the three months ended September 30, 2019. 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 and higher fuel costs. Gross margin decreased to (44.2)% during the three months ended September 30, 2020, compared to (19.8)% during the three months ended September 30, 2019, primarily due to an increase in cost of fuel paid to suppliers and an increase in the provision for common stock warrants.

Cost of revenue from fuel delivered to customers for the nine months ended September 30, 2020 increased 24.4%, or $6.3 million, to $32.3 million from $25.9 million for the nine months ended September 30, 2019. 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 and higher fuel costs. Gross margin decreased to (31.5)% during the nine months ended September 30, 2020, compared to (21.6)% during the nine months ended September 30, 2019, primarily due to an increase in cost of fuel paid to suppliers and an increase in the provision for common stock warrants.

Expenses

Research and development expense. Research and development expense includes: materials to build development and prototype units, cash and non-cash 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 September 30, 2020 increased $4.0 million, or 49.0%, to $12.0 million, from $8.0 million for the three months ended September 30, 2019. The increase was primarily due to additional R&D program investments such as programs associated with improvement of fuel efficiency, GenDrive unit performance and new product development such as on-road delivery trucks, drone applications, and increase in headcount.

Research and development expense for the nine months ended September 30, 2020 increased $7.8 million, or 32.0%, to $32.1 million, from $24.3 million for the nine months ended September 30, 2019. The increase was primarily due to additional R&D program investments such as programs associated with improvement of fuel efficiency, GenDrive unit performance and new product development such as on-road delivery trucks, drone applications, and increase in headcount.

Selling, general and administrative expenses. Selling, general and administrative expenses includes cash and non-cash 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 September 30, 2020, increased $3.9 million, or 37.3%, to $14.3 million from $10.4 million for the three months ended September 30, 2019. This increase was primarily related to acquisition and debt restructuring charges in addition to increases in salaries, employee bonuses, stock-based compensation and headcount.

Selling, general and administrative expenses for the nine months ended September 30, 2020, increased $13.6 million, or 40.8%, to $46.9 million from $33.4 million for the nine months ended September 30, 2019. This increase was primarily related to acquisition and debt restructuring charges in addition to increases in salaries, employee bonuses, stock-based compensation and headcount.

Interest and other expense, net. Interest and other expense, net consists of interest and other expenses related to our long-term debt, convertible senior notes, obligations under finance leases and our finance obligations, as well as foreign currency exchange losses, offset by interest and other income consisting primarily of interest earned on our cash and cash equivalents, restricted cash, foreign currency exchange gains and other income. Since September 30, 2019, the Company assumed approximately $170.0 million of additional long-term debt at 12% interest (which interest was reduced to 9.5% on May 6, 2020), issued a 7.5% Convertible Senior Note at 7.5% interest, issued $212.5 million convertible senior notes at 3.75% interest, and entered into additional sale/leaseback finance obligation arrangements.

Net interest and other expense for the three months ended September 30, 2020 increased $9.3 million, or 116.3%, as compared to the three months ended September 30, 2019. This increase was attributable to an increase in interest expense associated with the Company's finance obligations, long-term debt and the issuance of the convertible senior note, as mentioned above.

Net interest and other expense for the nine months ended September 30, 2020 increased $17.8 million, or 73.8%, as compared to the nine months ended September 30, 2019. This increase was attributable to an increase in finance obligations, long-term debt and the issuance of the convertible senior note, as mentioned above.

Common Stock Warrant Liability

The Company accounts for common stock warrants as common stock warrant liability with changes in the fair value reflected in the unaudited interim condensed consolidated statement of operations as change in the fair value of common stock warrant liability.

All remaining common stock warrants were fully exercised in the fourth quarter of 2019. As such, there was no change in fair value as of September 30, 2020.

Contingent Consideration

In the second quarter of 2020 the Company recorded a provisional amount of $7.8 million in contingent consideration, related to the valuation of Giner ELX's earnout payments that the sellers are eligible to receive. In the third quarter of 2020, the Company assessed the fair value of the contingent consideration to be $8.9 million. The $1.1 million change in fair value of the contingent consideration is reflected in the unaudited interim condensed consolidated statement of operations for the three and nine months ended September 30, 2020.

Gain (Loss) on Extinguishment of Debt

In May 2020, the Company used a portion of the net proceeds from the issuance of the 3.75% Convertible Senior Notes to repurchase approximately $66.3 million of the 5.5% Convertible Senior Notes which resulted in a $13.2 million gain on early debt extinguishment.

In March of 2019, the Company restructured its long-term debt with New York Green Bank, which resulted in a loss on early debt extinguishment of $0.5 million.

Income Tax

The Company recognized an income tax benefit for the three and nine months ended September 30, 2020 of $6.5 million and $24.2 million, respectively. Income tax benefit for the three and nine months ended September 30, 2020 included $6.5 million and $19.0 million, respectively resulting from the intraperiod tax allocation rules under ASC Topic 740-20, *Intraperiod Tax Allocation*, under which the Company recognized an income tax benefit resulting from a source of future taxable income attributable to the net credit to additional paid-in capital related to the issuance of the 3.75% Convertible Senior Notes, offset by the partial extinguishment of the 5.5% Convertible Senior Notes. In addition, the Company recorded $5.2 million of income tax benefit for the nine months ended September 30, 2020 related to the recognition of net deferred tax liabilities in connection with the Giner ELX acquisition, which resulted in a corresponding reduction in our deferred tax asset valuation allowance. The Company has not changed its overall conclusion with respect to the need for a valuation allowance against its net deferred tax assets, which remain fully reserved.

The remaining net deferred tax asset generated from the Company's current period 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 also recognizes accrued interest and penalties related to unrecognized tax benefits, if any, as a component of income tax expense.

Liquidity and Capital Resources

Liquidity

Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, growth in equipment leased to customers under long-term arrangements, funding the growth in our GenKey "turn-key" solution, which includes the installation of our customers' hydrogen infrastructure as well as production and delivery of the hydrogen fuel, continued development and expansion of our products, payment of lease/financing obligations under sale/leaseback financings, and the repayment or refinancing of our long-term debt. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments; attaining and expanding positive gross margins across all product lines; the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of developing marketing and distribution channels; the ability of our customers to obtain financing to support commercial transactions; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers and to repay or refinance our long-term debt, and the terms of such agreements that may require us to pledge or restrict substantial amounts of our cash to support these financing arrangements; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the timing and costs of product development and introductions; the extent of our ongoing and new research and development programs; and changes in our strategy or our planned activities. If we are unable to fund our operations with positive cash flows and cannot obtain external financing, we may not be able to sustain future operations. As a result, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

We have experienced and continue to experience negative cash flows from operations and net losses. The Company incurred net losses attributable to common stockholders of $85.5 million and $67.2 million for the nine months ended September 30, 2020 and 2019, respectively, and had an accumulated deficit of $1.4 billion at September 30, 2020.

We have historically funded our operations primarily through public and private offerings of equity and debt, as well as short-term borrowings, long-term debt and project financings. The Company believes that its current working capital and cash anticipated to be generated from future operations, as well as borrowings from lending and project financing sources and proceeds from equity and debt offerings, including our at-the-market offering, will provide sufficient liquidity to fund operations for at least one year after the date the financial statements are issued. There is no guarantee that future funding will be available if and when required or at terms acceptable to the Company. This projection is based on our current expectations regarding new project financing and product sales and service, cost structure, cash burn rate and other operating assumptions.

During the nine months ended September 30, 2020, net cash used in operating activities was $156.9 million, consisting primarily of a net loss attributable to the Company of $85.5 million, and net outflows from fluctuations in working capital and other assets and liabilities of $96.3 million. The changes in working capital primarily were related to increases and decreases in various current asset and liability accounts. As of September 30, 2020, we had cash and cash equivalents of $448.1 million and net working capital of $514.2 million. By comparison, at December 31, 2019, we had cash and cash equivalents of $139.5 million and net working capital of $162.5 million.

Net cash used in investing activities for the nine months ended September 30, 2020 totaled $71.7 million and included net cash paid for acquisitions, purchases of intangible assets, purchases of property, plant and equipment, and outflows associated with materials, labor, and overhead 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.

Net cash provided by financing activities for the nine months ended September 30, 2020 totaled $590.6 million and primarily resulted from the issuance of shares of common stock and convertible senior notes, and proceeds from borrowing on long-term debt, offset by the repurchase of convertible senior notes and purchase of related capped calls.

Public and Private Offerings of Equity and Debt

Common Stock Issuances

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.

On April 13, 2020, the Company entered into an At Market Issuance Sales Agreement (ATM), with B. Riley FBR, Inc., as sales agent, or FBR, pursuant to which the Company may offer and sell, from time to time through FBR, shares of Company common stock having an aggregate offering price of up to $75.0 million. As of the date of this filing, the Company has not issued any shares of common stock pursuant to the ATM.

In December 2019, the Company issued and sold in a registered public offering an aggregate of 46 million shares of its common stock at a purchase price of $2.75 per share for net proceeds of approximately $120.4 million.

Prior to December 31, 2019, the Company entered into a previous ATM with FBR, which was terminated in the fourth quarter of 2019. Under this ATM, for the nine months ended September 30, 2019, the Company issued 6.3 million shares of common stock, resulting in net proceeds of $14.6 million.

In March 2019, the Company issued and sold in a registered direct offering an aggregate of 10 million shares of its common stock at a purchase price of $2.35 per share for net proceeds of approximately $23.5 million.

Convertible Senior Notes

In May 2020, the Company issued $212.8 million in aggregate principal amount of 3.75% convertible senior notes due 2025, which we refer to herein as the 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 5.5% Convertible Senior Notes due 2023, which we refer to herein as 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 October 2020, $28.0 million of the remaining 5.5% Convertible Senior Notes converted into 12.2 million shares of common stock.

In September 2019, the Company issued a $40.0 million in aggregate principal amount of 7.5% convertible senior note due 2023, which we refer to herein as the 7.5% Convertible Senior Note. The Company's total obligation, net of interest accretion, due to the holder was $48.0 million. The total net proceeds from this offering, after deducting costs of the issuance, were $39.1 million. On July 1, 2020, the note automatically converted fully into 16.0 million shares of common stock.

Operating and Finance Leases

The Company enters into sale/leaseback agreements with various financial institutions to facilitate the Company's commercial transactions with key customers. The Company sells certain fuel cell systems and hydrogen infrastructure to the financial institutions and leases the equipment back to support certain customer locations and to fulfill its varied Power Purchase Agreements (PPAs). Transactions completed under the sale/leaseback arrangements are generally accounted for as operating leases and therefore the sales of the fuel cell systems and hydrogen infrastructure are recognized as revenue. In connection with certain sale/leaseback transactions, the financial institutions require the Company to maintain cash balances in restricted accounts securing the Company's finance obligations. Cash received from customers under the PPAs is used to make payments against the Company's finance obligations. As the Company performs under these agreements, the required restricted cash balances are released, according to a set schedule. The total remaining lease payments to financial institutions under these agreements at September 30, 2020 was $332.8 million, $286.2 million of which were secured with restricted cash, security deposits backing letters of credit, and pledged service escrows.

The Company has varied master lease agreements with Wells Fargo Equipment Finance, Inc., or Wells Fargo, to finance the Company's commercial transactions with various customers. The Wells Fargo lease agreements were entered into during 2017, 2018, 2019 and 2020. Pursuant to the lease agreements, the Company sells fuel cell systems and hydrogen infrastructure to Wells Fargo and then leases them back and operates them at Walmart sites. The Company has a customer guarantee for a large portion of the transactions entered into in connection with such lease agreements. The Wells Fargo lease agreements required letters of credit totaling approximately $78.8 million for the unguaranteed portion as of September 30, 2020. The total remaining lease liabilities owed to Wells Fargo were $114.3 million at September 30, 2020.

Over recent years, including in 2019, the Company has entered into master lease agreements with multiple institutions such as Key Equipment Finance (KeyBank), SunTrust Equipment Finance & Lease Corp. (now known as Truist Bank), First American Bancorp, Inc. (First American), Crestmark Equipment Finance (Crestmark) and U.S. Bank. During the nine months ended September 30 2020, the Company entered into additional lease agreements with KeyBank, First American, Truist Bank, Crestmark and U.S. Bank. Similar to the Wells Fargo lease agreements, the primary purpose of these agreements is to finance commercial transactions with varied customers. Most of the transactions with these financial institutions required cash collateral for the unguaranteed portions totaling $189.9 million as of September 30, 2020. Similar to the Wells Fargo lease agreements, in many cases the Company has a customer guarantee for a large portion of the transactions. The total remaining lease liabilities owed to these financial institutions were $218.5 million at September 30, 2020.

Restricted Cash

As security for the above noted sale/leaseback agreements, cash of $133.4 million was required to be restricted as of September 30, 2020, which restricted cash will be released over the lease term. As of September 30, 2020, the Company also had letters of credit backed by security deposits totaling $149.3 million for the above noted sale/leaseback agreements.

In addition, as of September 30, 2020, the Company also had letters of credit in the aggregate amount of $0.5 million associated with a finance obligation from the sale/leaseback of its building. We consider cash collateralizing this letter of credit as restricted cash.

Secured Debt

In March 2019, the Company, and its subsidiaries Emerging Power Inc. and Emergent Power Inc., entered into a loan and security agreement, as amended (the Loan Agreement), with Generate Lending, LLC (Generate Capital), providing for a secured term loan facility in the amount of $100.0 million (the Term Loan Facility). The Company borrowed $85.0 million under the Loan Agreement on the date of closing and borrowed an additional $15.0 million in April 2019 and $20 million in November 2019. A portion of the initial proceeds of the loan was used to pay in full the Company's long-term debt with NY Green Bank, a Division of the New York State Energy Research & Development Authority, including accrued interest of $17.6 million (the Green Bank Loan), and terminate approximately $50.3 million of certain equipment leases with Generate Plug Power SLB II, LLC and repurchase the associated leased equipment. In connection with this transaction, the Company recognized a loss on extinguishment of debt of approximately $0.5 million during the nine months ended September 30, 2019. This loss was recorded in gain (loss) on extinguishment of debt, in the Company's unaudited interim condensed consolidated statement of operations. Additionally, $1.7 million was paid to an escrow account related to additional fees due in connection with the Green Bank Loan if the Company does not meet certain New York State employment and fuel cell deployment targets by March 2021. Amount escrowed is recorded in short-term other assets on the Company's unaudited interim condensed consolidated balance sheets as of September 30, 2020. The Company presently expects to meet the targets as required under the arrangement. During the nine months ended September 30, 2020, the Company received $250 thousand from escrow related to the New York state employment targets.

Additionally, on May 6, 2020, the Company and its subsidiaries, Emerging Power, Inc. and Emergent Power, Inc., entered into a Fifth Amendment (the Amendment) to the Loan Agreement and Security Agreement, dated as of March 29, 2019, as amended (the Loan Agreement) with Generate Lending, LLC (Generate Capital). The Amendment amends the Loan Agreement to, among other things, (i) provide for an incremental term loan in the amount of $50.0 million, (ii) provide for additional, uncommitted incremental term loans in an aggregate amount not to exceed $50.0 million, which may become available to the Company in Generate Capital's sole discretion, (iii) reduce the interest rate on all loans to 9.50% from 12.00% per annum, and (iv) extend the maturity date to October 31, 2025 from October 6, 2022. The $50 million incremental term loan has been fully funded. In connection with the restructuring, the Company capitalized $1.0 million of origination fees and expensed $300 thousand in legal fees. In the third quarter of 2020, the Company borrowed an additional $50.0 million, under the amended Loan Agreement.

On September 30, 2020, the outstanding balance under the Term Loan Facility was $185.0 million with a 9.5% annual interest rate.

The Loan Agreement includes covenants, limitations, and events of default customary for similar facilities. Interest and a portion of the principal amount is payable on a quarterly basis. Principal payments will be funded in part by releases of restricted cash, as described in Note 16, Commitments and Contingencies. Based on the amortization schedule as of September 30, 2020, the outstanding balance of $185.0 million under the Term Loan Facility must be fully paid by October 31, 2025.

All obligations under the Loan Agreement are unconditionally guaranteed by Emerging Power Inc. and Emergent Power Inc. The Term Loan Facility is secured by substantially all of the Company's and the guarantor subsidiaries' assets, including, among other assets, all intellectual property, all securities in domestic subsidiaries and 65% of the securities in foreign subsidiaries, subject to certain exceptions and exclusions.

The Loan Agreement contains covenants, including, among others, (i) the provision of annual and quarterly financial statements, management rights and insurance policies and (ii) restrictions on incurring debt, granting liens, making acquisitions, making loans, paying dividends, dissolving, and entering into leases and asset sales and (iii) compliance with a collateral coverage covenant. The Loan Agreement also provides for events of default, including, among others, payment, bankruptcy, covenant, representation and warranty, change of control, judgment and material adverse effect defaults at the discretion of the lender. As of September 30, 2020, the Company was in compliance with all the covenants.

The Loan Agreement provides that if there is an event of default due to the Company's insolvency or if the Company fails to perform in any material respect the servicing requirements for fuel cell systems under certain customer agreements, which failure would entitle the customer to terminate such customer agreement, replace the Company or withhold the payment of any material amount to the Company under such customer agreement, then Generate Capital has the right to cause Proton Services Inc., a wholly owned subsidiary of the Company, to replace the Company in performing the maintenance services under such customer agreement.

As of September 30, 2020, the Term Loan Facility requires the principal balance as of each of the following dates not to exceed the following (in thousands):

December 31, 2020	$ 164,017
December 31, 2021	127,317
December 31, 2022	93,321
December 31, 2023	62,920
December 31, 2024	33,692
December 31, 2025	—

Several key indicators of liquidity are summarized in the following table (in thousands):

	Nine months ended or at September 30, 2020	Year ended or at December 31, 2019
Cash and cash equivalents at end of period	$ 448,140	$ 139,496
Restricted cash at end of period	283,232	230,004
Working capital at end of period	514,163	162,549
Net loss attributable to common stockholders	(85,533)	(85,517)
Net cash used in operating activities	(156,910)	(51,522)
Net cash used in investing activities	(71,715)	(14,244)
Net cash provided by financing activities	590,587	325,060

On May 18, 2020, the Company issued $200.0 million in aggregate principal amount of 3.75% Convertible Senior Notes due June 1, 2025, which is referred to herein as the 3.75% Convertible Senior Notes, in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended, or 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.

At issuance in May 2020, the total net proceeds from the 3.75% Convertible Senior Notes were as follows:

	Amount (in thousands)
Principal amount	$ 212,463
Less initial purchasers' discount	(6,374)
Less cost of related capped calls	(16,253)
Less other issuance costs	(617)
Net proceeds	$ 189,219

3.75% Convertible Senior Notes

The 3.75% Convertible Senior Notes bear interest at a rate of 3.75% per year, payable semi-annually in arrears on June 1 and December 1 of each year, beginning on December 1, 2020. The notes will mature on June 1, 2025, unless earlier converted, redeemed or repurchased in accordance with their terms.

The 3.75% Convertible Senior Notes are senior, unsecured obligations of the Company and rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the notes, equal in right of payment to any of the Company's existing and future liabilities that are not so subordinated, including the Company's $100 million in aggregate principal amount of 5.5% Convertible Senior Notes due 2023, which is referred to herein as the 5.5% Convertible Senior Notes, effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the collateral securing such indebtedness, and structurally subordinated to all indebtedness and other liabilities, including trade payables, of its current or future subsidiaries.

Holders of the 3.75% Convertible Senior Notes may convert their notes at their option at any time prior to the close of the business day immediately preceding December 1, 2024 in the following circumstances:

1) during any calendar quarter commencing after September 30, 2020, if the last reported sale price of the Company's common stock exceeds 130% of the conversion price for each of at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter;

2) during the five business days after any five consecutive trading day period (such five consecutive trading day period, the measurement period) in which the trading price per $1,000 principal amount of the 3.75% Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day;
3) if the Company calls any or all of the 3.75% Convertible Senior Notes for redemption, any such notes that have been called for redemption may be converted at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

4) upon the occurrence of specified corporate events, as described in the indenture governing the 3.75% Convertible Senior Notes.

On or after December 1, 2024, the holders of the 3.75% Convertible Senior Notes may convert all or any portion of their notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions.

The initial conversion rate for the 3.75% Convertible Senior Notes will be 198.6196 shares of the Company's common stock per $1,000 principal amount of notes, which is equivalent to an initial conversion price of approximately $5.03 per share of the Company's common stock, subject to adjustment upon the occurrence of specified events. Upon conversion, the Company will pay or deliver, as applicable, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election.

In addition, following certain corporate events or following issuance of a notice of redemption, the Company will increase the conversion rate for a holder who elects to convert its notes in connection with such a corporate event or convert its notes called for redemption during the related redemption period in certain circumstances.

The 3.75% Convertible Senior Notes will be redeemable, in whole or in part, at the Company's option at any time, and from time to time, on or after June 5, 2023 and before the 41st scheduled trading day immediately before the maturity date, at a cash redemption price equal to 100% of the principal amount of the notes to be redeemed, plus accrued and unpaid interest, if any, but only if the last reported sale price per share of the Company's common stock exceeds 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date the Company sends the related redemption notice, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company sends such redemption notice.

If the Company undergoes a "fundamental change" (as defined in the Indenture), holders may require the Company to repurchase their notes for cash all or any portion of their notes at a fundamental change repurchase price equal to 100% of the principal amount of the notes to be repurchased, plus accrued and unpaid interest, to, but excluding, the fundamental change repurchase date.

In accounting for the issuance of the 3.75% Convertible Senior Notes, the Company separated the notes into liability and equity components. The initial carrying amount of the liability component of approximately $75.2 million, net of costs incurred, was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component of approximately $130.3 million, net of costs incurred, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the 3.75% Convertible Senior Notes. The difference between the principal amount of the 3.75% Convertible Senior Notes and the liability component (the debt discount) is amortized to interest expense using the effective interest method over the term of the 3.75% Convertible Senior Notes. The effective interest rate is approximately 29.0%. The equity component of the 3.75% Convertible Senior Notes is included in additional paid-in capital in the unaudited interim condensed consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification.

We incurred transaction costs related to the issuance of the 3.75% Convertible Senior Notes of approximately $7.0 million, consisting of initial purchasers' discount of approximately $6.4 million and other issuance costs of $0.6 million. In accounting for the transaction costs, we allocated the total amount incurred to the liability and equity components using the same proportions as the proceeds from the 3.75% Convertible Senior Notes. Transaction costs attributable to the liability component were approximately $2.6 million, were recorded as debt issuance cost (presented as contra debt in the unaudited interim condensed consolidated balance sheets) and are being amortized to interest expense over the term of the 3.75% Convertible Senior Notes. The transaction costs attributable to the equity component were approximately $4.4 million and were netted with the equity component in stockholders' equity.

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

		September 30, 2020
Principal amounts:		
Principal	$	212,463
Unamortized debt discount (1)		(129,101)
Unamortized debt issuance costs (1)		(2,425)
Net carrying amount	$	80,937
Carrying amount of the equity component (2)	$	130,249

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.

2) Included in the unaudited interim condensed consolidated balance sheets within additional paid-in capital, net of $4.4 million in equity issuance costs and associated income tax benefit of $19.0 million.

Based on the closing price of the Company's common stock of $13.41 on September 30, 2020, the if-converted value of the notes was greater than the principal amount. The estimated fair value of the note at September 30, 2020 was approximately $532.3 million. The Company utilized a Monte Carlo simulation model to estimate the fair value of the convertible debt. The simulation model is designed to capture the potential settlement features of the convertible debt, in conjunction with simulated changes in the Company's stock price over the term of the note, incorporating a volatility assumption of 75%. This is considered a Level 3 fair value measurement.

Capped Call

In conjunction with the pricing of the 3.75% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (3.75% Notes Capped Call) with certain counterparties at a price of $16.2 million. The 3.75% Notes Capped Call cover, 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 has been recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheet.

7.5% Convertible Senior Note

In September 2019, the Company issued $40.0 million aggregate principal amount of 7.5% Convertible Senior Note due on January 5, 2023, which is referred to herein as the 7.5% Convertible Senior Note, in exchange for net proceeds of $39.1 million, in a private placement to an accredited investor pursuant to Rule 144A under the Securities Act. There were no required principal payments prior to the maturity of the 7.5% Convertible Senior Note. Upon maturity of the 7.5% Convertible Senior Note, the Company was required to repay 120% of $40.0 million, or $48.0 million. The 7.5% Convertible Senior Note bore interest at 7.5% per year, payable quarterly in arrears on January 5, April 5, July 5 and October 5 of each year beginning on October 5, 2019 and was to mature on January 5, 2023 unless earlier converted or repurchased in accordance with its terms. The 7.5% Convertible Senior Note was unsecured and did not contain any financial covenants or any restrictions on the payment of dividends, or the issuance or repurchase of common stock by the Company.

On July 1, 2020, the 7.5% Convertible Senior Note automatically converted into 16.0 million shares of common stock.

5.5% Convertible Senior Notes

In March 2018, the Company issued $100.0 million in aggregate principal amount of 5.5% Convertible Senior Notes due on March 15, 2023, which is referred to herein as the 5.5% Convertible Senior Notes in a private placement to qualified institutional buyers pursuant to Rule 144A under the Securities Act.

In May 2020, the Company used a portion of the net proceeds from the issuance of the 3.75% Convertible Senior Notes to finance the cash portion of the partial repurchase of the 5.5% Convertible Senior Notes, which consisted of a repurchase of approximately $66.3 million in aggregate principal amount of the 5.5% Convertible Senior Notes in privately-negotiated transactions for aggregate consideration of $128.9 million, consisting of approximately $90.2 million in cash and approximately 9.4 million shares of the Company's common stock. Of the $128.9 million in aggregate consideration**,** $35.5 million and $93.4 million were allocated to the debt and equity components, respectively, utilizing an effective discount rate of 29.8% to determine the fair value of the liability component. As of the repurchase date, the carrying value of the 5.5% Convertible Senior Notes that were repurchased, net of unamortized debt discount and issuance costs, was $48.7 million. The partial repurchase of the 5.5% Convertible Senior Notes resulted in a $13.2 million gain on early debt extinguishment. As of September 30, 2020, approximately $33.7 million aggregate principal amount of the 5.5% Convertible Senior Notes remained outstanding. In October 2020, $28.0 million of the remaining 5.5% Convertible Senior Notes converted into 12.2 million shares of common stock.

At issuance in March 2018, the total net proceeds from the 5.5% Convertible Senior Notes were as follows:

	Amount (in thousands)
Principal amount	$ 100,000
Less initial purchasers' discount	(3,250)
Less cost of related capped call and common stock forward	(43,500)
Less other issuance costs	(894)
Net proceeds	$ 52,356

The 5.5% Convertible Senior Notes bear interest at 5.5%, payable semi-annually in cash on March 15 and September 15 of each year. The 5.5% Convertible Senior Notes will mature on March 15, 2023, unless earlier converted

or repurchased in accordance with their terms. The 5.5% Convertible Senior Notes are unsecured and do not contain any financial covenants or any restrictions on the payment of dividends, or the issuance or repurchase of common stock by the Company.

Each $1,000 principal amount of the 5.5% Convertible Senior Notes is convertible into 436.3002 shares of the Company's common stock, which is equivalent to a conversion price of approximately $2.29 per share, subject to adjustment upon the occurrence of specified events. Holders of these 5.5% Convertible Senior Notes may convert their 5.5% Convertible Senior Notes at their option at any time prior to the close of the last business day immediately preceding September 15, 2022, only under the following circumstances:

1) during any calendar quarter (and only during such calendar quarter), if the last reported sale price of the Company's common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;

2) during the five business day period after any five consecutive trading day period (the measurement period) in which the trading price (as defined in the indenture governing the 5.5% Convertible Senior Notes) per $1,000 principal amount of 5.5% Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate for the 5.5% Convertible Senior Notes on each such trading day;

3) if the Company calls any or all of the 5.5% Convertible Senior Notes for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; or

4) upon the occurrence of certain specified corporate events, such as a beneficial owner acquiring more than 50% of the total voting power of the Company's common stock, recapitalization of the Company, dissolution or liquidation of the Company, or the Company's common stock ceases to be listed on an active market exchange.

On or after September 15, 2022, holders may convert all or any portion of their 5.5% Convertible Senior Notes at any time prior to the close of business on the second scheduled trading day immediately preceding the maturity date regardless of the foregoing conditions.

Upon conversion of the 5.5% Convertible Senior Notes, the Company will pay or deliver, as the case may be, cash, shares of the Company's common stock or a combination of cash and shares of the Company's common stock, at the Company's election. While the Company plans to settle the principal amount of the 5.5% Convertible Senior Notes in cash subject to available funding at time of settlement, we currently use the if-converted method for calculating any potential dilutive effect of the conversion option on diluted net income per share, subject to meeting the criteria for using the treasury stock method in future periods.

The conversion rate will be subject to adjustment in some events but will not be adjusted for any accrued or unpaid interest. Holders who convert their 5.5% Convertible Senior Notes in connection with certain corporate events that constitute a "make-whole fundamental change" per the indenture governing the 5.5% Convertible Senior Notes or in connection with a redemption will be, under certain circumstances, entitled to an increase in the conversion rate. In addition, if the Company undergoes a fundamental change prior to the maturity date, holders may require the Company to repurchase for cash all or a portion of its 5.5% Convertible Senior Notes at a repurchase price equal to 100% of the principal amount of the repurchased 5.5% Convertible Senior Notes, plus accrued and unpaid interest.

The Company may not redeem the 5.5% Convertible Senior Notes prior to March 20, 2021. The Company may redeem for cash all or any portion of the 5.5% Convertible Senior Notes, at the Company's option, on or after March 20, 2021 if the last reported sale price of the Company's common stock has been at least 130% of the conversion price then in effect for at least 20 trading days (whether or not consecutive), including at least one of the three trading days immediately preceding the date on which the Company provides notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption at a redemption price equal to 100% of the principal amount of the 5.5% Convertible Senior Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

In accounting for the issuance of the notes, the Company separated the 5.5% Convertible Senior Notes into liability and equity components. The initial carrying amount of the liability component of approximately $58.2 million, net of costs incurred, was calculated by measuring the fair value of a similar liability that does not have an associated convertible feature. The carrying amount of the equity component of approximately $37.7 million, net of costs incurred, representing the conversion option, was determined by deducting the fair value of the liability component from the par value of the 5.5% Convertible Senior Notes. The difference between the principal amount of the 5.5% Convertible Senior Notes and the liability component (the debt discount) is amortized to interest expense using the effective interest method over the term of the 5.5% Convertible Senior Notes. The effective interest rate is approximately 16.0%. The equity component of the 5.5% Convertible Senior Notes is included in additional paid-in capital in the unaudited interim condensed consolidated balance sheets and is not remeasured as long as it continues to meet the conditions for equity classification.

We incurred transaction costs related to the issuance of the 5.5% Convertible Senior Notes of approximately $4.1 million, consisting of initial purchasers' discount of approximately $3.3 million and other issuance costs of $0.9 million. In accounting for the transaction costs, we allocated the total amount incurred to the liability and equity components using the same proportions as the proceeds from the 5.5% Convertible Senior Notes. Transaction costs attributable to the liability component were approximately $2.4 million, were recorded as debt issuance cost (presented as contra debt in the unaudited interim condensed consolidated balance sheets) and are being amortized to interest expense over the term of the 5.5% Convertible Senior Notes. The transaction costs attributable to the equity component were approximately $1.7 million and were netted with the equity component in stockholders' equity.

The 5.5% Convertible Senior Notes consisted of the following (in thousands):

	September 30, 2020	December 31, 2019
Principal amounts:		
Principal	$ 33,660	$ 100,000
Unamortized debt discount (1)	(7,477)	(27,818)
Unamortized debt issuance costs (1)	(403)	(1,567)
Net carrying amount	$ 25,780	$ 70,615
Carrying amount of the equity component (2)	$ —	$ 37,702

1) Included in the unaudited interim condensed consolidated balance sheets within the 5.5% Convertible Senior Notes, net and amortized over the remaining life of the 5.5% Convertible Senior Notes using the effective interest rate method.
2) Included in the unaudited interim condensed consolidated balance sheets within additional paid-in capital, net of $1.7 million in equity issuance costs and associated income tax benefit of $9.2 million, at December 31, 2019.

Based on the closing price of the Company's common stock of $13.41 on September 30, 2020, the if-converted value of the 5.5% Convertible Senior Notes was greater than the principal amount. The estimated fair value of the 5.5% Convertible Senior Notes at September 30, 2020 and December 31, 2019 was approximately $195.3 million and $135.3 million, respectively. The Company utilized a Monte Carlo simulation model to estimate the fair value of the convertible debt. The simulation model is designed to capture the potential settlement features of the convertible debt, in conjunction with simulated changes in the Company's stock price over the term of the 5.5% Convertible Senior Notes, incorporating a volatility assumption of 75%. This is considered a Level 3 fair value measurement.

Capped Call

In conjunction with the pricing of the 5.5% Convertible Senior Notes, the Company entered into privately negotiated capped call transactions (5.5% Notes Capped Call) with certain counterparties at a price of $16.0 million. The 5.5% Notes Capped Call cover, subject to anti-dilution adjustments, the aggregate number of shares of the Company's common stock that underlie the initial 5.5% Convertible Senior Notes and is generally expected to reduce the potential dilution to the Company's common stock upon any conversion of the 5.5% Convertible Senior Notes and/or offset any cash payments the Company is required to make in excess of the principal amount of the converted 5.5% Convertible Senior 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 5.5% Notes Capped Call is initially $3.82 per share, which represents a premium of 100% over the last then-reported sale price of the Company's common stock of $1.91 per share on the date of the transaction and is subject to certain adjustments under the terms of the 5.5% Notes Capped Call. The 5.5% Notes Capped Call becomes exercisable if the conversion option is exercised.

The net cost incurred in connection with the 5.5% Notes Capped Call has been recorded as a reduction to additional paid-in capital in the unaudited interim condensed consolidated balance sheets.

In conjunction with the partial repurchase of the 5.5% Convertible Senior Notes, the Company terminated 100% of the 5.5% Notes Capped Call on June 5, 2020. As a result of the termination, the Company received $24.2 million which is recorded in additional paid-in capital.

Common Stock Forward

In connection with the issuance of the 5.5% Convertible Senior Notes, the Company also entered into a forward stock purchase transaction, or 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. In connection with the issuance of the 3.75% Convertible Senior Notes, 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 has been 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.

In conjunction with the partial payoff of the 5.5% Convertible Senior Notes, the Common Stock Forward's expiration date was extended to June 1, 2025.

The book values of the 5.5% Notes Capped Call and Common Stock Forward are not remeasured.

During October 2020, the Common Stock Forward was partially settled and, as a result, the Company received 3.5 million shares of its common stock.

Amazon Transaction Agreement

On April 4, 2017, the Company and Amazon entered into a Transaction Agreement (the Amazon Transaction Agreement), pursuant to which the Company agreed to issue to Amazon.com NV Investment Holdings LLC, a wholly owned subsidiary of Amazon, warrants to acquire up to 55,286,696 shares of the Company's common stock (the Amazon Warrant Shares), subject to certain vesting events described below. The Company and Amazon entered into the 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 existing commercial agreements contemplate, but do not guarantee, future purchase orders for the Company's fuel cell technology. The vesting of the Amazon Warrant Shares is linked to payments made by Amazon or its affiliates (directly or indirectly through third parties) pursuant to the existing commercial agreements.

The majority of the Amazon Warrant Shares will vest based on Amazon's payment of up to $600.0 million to the Company in connection with Amazon's purchase of goods and services from the Company. The first tranche of 5,819,652 Amazon Warrant Shares vested upon the execution of the Amazon Transaction Agreement. Accordingly, $6.7 million, the fair value of the first tranche of Amazon Warrant Shares, was recognized as selling, general and administrative expense during 2017. All future provision for common stock warrants is measured based on their grant-date fair value and recorded as a charge against revenue. The second tranche of 29,098,260 Amazon Warrant Shares vested in four installments of 7,274,565 Amazon Warrant Shares each time Amazon or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $200.0 million in the aggregate. The exercise price for the first and second tranches of Amazon Warrant Shares is $1.1893 per share. The third tranche of 20,368,784 Amazon Warrant Shares will vest in eight installments of 2,546,098 Amazon Warrant Shares each time Amazon or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of Amazon Warrant Shares is $13.81, which is an amount per share equal to ninety percent (90%) of the 30-day volume weighted average share price of the common stock as of the final vesting date of the second tranche of Amazon Warrant Shares. The Amazon Warrant Shares are exercisable through April 4, 2027. The Amazon Warrant Shares provide for net share settlement that, if elected by the holders, will reduce the number of shares issued upon exercise to reflect net settlement of the exercise price. The Amazon Warrant Shares provide for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. These warrants are classified as equity instruments.

At September 30, 2020 and December 31, 2019, 27,643,347 and 20,368,782 of the Amazon Warrant Shares had vested, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the three months ended September 30, 2020 and 2019 was $17.3 million and $1.0 million, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Amazon Warrant during the nine months ended September 30, 2020 and 2019 was $22.0 million and $2.0 million, respectively.

During the third quarter of 2020, approximately $23.8 million of recorded revenue from Amazon was constrained by the tranche 3 of the Amazon Warrant Shares. An additional 7,274,565 Amazon Warrant Shares vested on November 2, 2020, representing the final vesting of tranche 2, resulting in cumulative vesting in 34,917,912 Warrant Shares since the execution of the Amazon Transaction Agreement. In accordance with terms of the Amazon Transaction Agreement as described above, upon final vesting of tranche 2, the tranche 3 Amazon Warrant Shares exercise price was determined to be $13.81 per share. Based on the exercise price of the third tranche of the Amazon Warrant Shares, among other things, the fair value of the 20,368,784 tranche 3 Amazon Warrant Shares is estimated to be $10.60 each, compared to the fair value of tranche 2 Amazon Warrant Shares of $1.05 each.

The Company also recorded a provision for losses of $4.3 million in the third quarter of 2020 related to Amazon service contracts, caused primarily by the increase in the value of the tranche 3 warrants, driven by recent increases in the Company's stock price.

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 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 is linked to 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 majority of the Walmart Warrant Shares will vest based on Walmart's payment of up to $600.0 million to the Company in connection with Walmart's purchase of goods and services from the Company. The first tranche of 5,819,652 Walmart Warrant Shares vested upon the execution of the Walmart Transaction Agreement. Accordingly, $10.9 million, the fair value of the first tranche of Walmart Warrant Shares, was recorded as a provision for common stock warrants and presented as a reduction to revenue on the unaudited interim condensed consolidated statements of operations during 2017. All future provision for common stock warrants is measured based on their grant-date fair value and recorded as a charge against revenue. The second tranche of 29,098,260 Walmart Warrant Shares will vest in four installments of

7,274,565 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $200.0 million in the aggregate. The exercise price for the first and second tranches of Walmart Warrant Shares is $2.1231 per share. After Walmart has made payments to the Company totaling $200.0 million, the third tranche of 20,368,784 Walmart Warrant Shares will vest in eight installments of 2,546,098 Walmart Warrant Shares each time Walmart or its affiliates, directly or indirectly through third parties, make an aggregate of $50.0 million in payments for goods and services to the Company, up to payments totaling $400.0 million in the aggregate. The exercise price of the third tranche of Walmart Warrant Shares will be an amount per share equal to ninety percent (90%) of the 30-day volume weighted average share price of the common stock as of the final vesting date of the second tranche of Walmart Warrant Shares, provided that, with limited exceptions, the exercise price for the third tranche will be no lower than $1.1893. The Walmart Warrant Shares are exercisable through July 20, 2027.

The Walmart Warrant Shares provide for net share settlement that, if elected by the holders, will reduce the number of shares issued upon exercise to reflect net settlement of the exercise price. The Walmart Warrant Shares provide for certain adjustments that may be made to the exercise price and the number of shares of common stock issuable upon exercise due to customary anti-dilution provisions based on future events. These warrants are classified as equity instruments.

At September 30, 2020 and December 31, 2019, 13,094,217 and 5,819,652 of the Walmart Warrant Shares had vested, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the three months ended September 30, 2020 and 2019 was $1.3 million and $0.5 million, respectively. The amount of provision for common stock warrants recorded as a reduction of revenue for the Walmart Warrant during the nine months ended September 30, 2020 and 2019 was $3.2 million and $1.7 million, respectively.

Lessor Obligations

As of September 30, 2020, the Company had noncancelable operating leases (as lessor), primarily associated with assets deployed at customer sites. These leases expire over the next one to nine years. Leases contain termination clauses with associated penalties, the amount of which cause the likelihood of cancellation to be remote.

Future minimum lease payments under noncancelable operating leases (with initial or remaining lease terms in excess of one year) as of September 30, 2020 were as follows (in thousands):

Remainder of 2020	$ 8,272
2021	34,436
2022	32,665
2023	30,043
2024	26,660
2025 and thereafter	$ 49,351
Total future minimum lease payments	$ 181,427

Lessee Obligations

As of September 30, 2020, the Company had operating and finance 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 eight years. Minimum rent payments under operating and finance 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.

In prior periods, the Company entered into sale/leaseback transactions that were accounted for as finance leases and reported as part of finance obligations. The outstanding balance of finance obligations related to sale/leaseback transactions at September 30, 2020 and December 31, 2019 was $25.9 million and $31.7 million, respectively. The fair value of the finance obligation approximated the carrying value as of both September 30, 2020 and December 31, 2019.

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 September 30, 2020 was $144.3 million, of which $22.2 million and $122.1 million were classified as short-term and long-term, respectively, on the unaudited interim condensed consolidated balance sheets. The outstanding balance of this obligation at December 31, 2019 was $109.4 million, of which $15.5 million and $93.9 million were classified as short-term and long-term, respectively. The amount is amortized using the effective interest method. The fair value of this finance obligation approximated the carrying value as of September 30, 2020.

The Company has a finance lease associated with its property and equipment in Latham, New York. A liability relating to this lease of $2.8 million has been recorded as a finance obligation in the unaudited interim condensed consolidated balance sheet as of September 30. The fair value of this finance obligation approximated the carrying value as of September 30, 2020.

Future minimum lease payments under operating and finance leases (with initial or remaining lease terms in excess of one year) as of September 30, 2020 were as follows (in thousands):

	Operating Leases	Finance Leases	Other Leased Property	Total Finance Obligations
Remainder of 2020	$ 14,639	$ 2,546	$ 186	$ 17,371
2021	58,505	9,276	590	68,371
2022	58,480	4,975	573	64,028
2023	55,655	3,149	549	59,353
2024	54,203	16,154	632	70,989
2025 and thereafter	71,304	—	1,174	72,478
Total future minimum lease payments	312,786	36,100	3,704	352,590
Less imputed lease interest	(84,903)	(10,190)	(947)	(96,040)
Sale of future services	144,292	—	—	144,292
Total lease liabilities	$ 372,175	$ 25,910	$ 2,757	$ 400,842

Rental expense for all operating leases was $14.6 million and $7.8 million for the three months ended September 30, 2020 and 2019, respectively. Rental expense for all operating leases was $40.1 million and $19.9 million for the nine months ended September 30, 2020 and 2019, respectively.

The gross profit on sale/leaseback transactions for all operating leases was $24.5 million and $44.2 million for the three and nine months ended September 30, 2020, respectively, and $14.8 million and $30.9 million for the three and nine months ended September 30, 2019, respectively. Right of use assets obtained in exchange for new operating lease liabilities was $41.1 million and $86.5 million for the three and nine months ended September 30, 2020, respectively, and $38.4 million and $72.9 million for the three and nine months ended September 30, 2019.

At both September 30, 2020 and December 31, 2019, security deposits associated with sale/leaseback transactions were $5.8 million and were included in other assets in the unaudited interim condensed consolidated balance sheets.

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

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Cash payments (in thousands)	$ 40,500	$ 19,222

	September 30,	
	2020	2019
Weighted average remaining lease term (years)	5.5	5.25
Weighted average discount rate	12.1%	12.1%

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 unaudited interim consolidated statement of operations). Finance lease costs were as follows (in thousands):

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Amortization of right of use asset	$ 2,655	$ 2,308
Interest on finance obligations	1,778	3,194
Total finance lease cost	$ 4,433	$ 5,502

Right of use assets obtained in exchange for new finance lease liabilities was $41.1 million and $86.5 million for the three and nine months ended September 30, 2020, respectively, and $38.4 million and $72.9 million for the three and nine months ended September 30, 2019, respectively.

Other information related to the finance leases are presented in the following tables:

	Nine months ended September 30, 2020	Nine months ended September 30, 2019
Cash payments (in thousands)	$ 7,847	$ 57,659

	As of September 30,	
	2020	2019
Weighted average remaining lease term (years)	3.36	3.09
Weighted average discount rate	7.8%	11.1%

Restricted Cash

As security for the above noted sale/leaseback agreements, cash of $133.4 million was required to be restricted as of September 30, 2020, which restricted cash will be released over the lease term. As of September 30, 2020, the Company also had letters of credit backed by security deposits totaling $149.3 million for the above noted sale/leaseback agreements.

In addition, as of September 30, 2020, the Company also had letters of credit in the aggregate amount of $0.5 million associated with a finance obligation from the sale/leaseback of its building. We consider cash collateralizing this letter of credit as restricted cash.

Legal matters are defended and handled in the ordinary course of business. The Company has established accruals for matters for which management considers a loss to be probable and reasonably estimable. It is the opinion of management that facts known at the present time do not indicate that such litigation, after taking into account insurance coverage and the aforementioned accruals, will have a material adverse impact on our results of operations, financial position, or cash flows.

Concentrations of Credit Risk

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

At September 30, 2020, one customer comprised approximately 84.5% of the total accounts receivable balance. At December 31, 2019, two customers comprised approximately 63.4% of the total accounts receivable balance.

For the nine months ended September 30, 2020, 71.8% of total consolidated revenues were associated primarily with two customers. For the nine months ended September 30, 2019, 62.3% of total consolidated revenues were associated primarily with three customers. 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.

Off-Balance Sheet Arrangements

As of September 30, 2020, the Company does not have off-balance sheet arrangements that are likely to have a current or future significant effect on the Company's financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that is material to investors.

Critical Accounting Estimates

Management's discussion and analysis of our financial condition and results of operations are based upon our unaudited interim condensed consolidated financial statements, which have been prepared in accordance with U.S. GAAP. The preparation of these unaudited interim condensed 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 for bad debts, inventories, intangible assets, valuation of long-lived assets, accrual for loss contracts on service, operating and finance leases, product warranty reserves, unbilled revenue, common stock warrants, income taxes, stock-based compensation, contingencies, and purchase accounting. 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.

We refer to the policies and estimates set forth in the section "Management's Discussion and Analysis of Financial Condition and Results of Operations—Critical Accounting Estimates", as well as a discussion of significant accounting policies included in Note 2, Summary of Significant Accounting Policies, of the consolidated financial statements, both of which are included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2019.

Recently Adopted Accounting Pronouncements

In June 2016, *Accounting Standards Update (ASU) 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, was issued. Also, In April 2019, *Accounting Standards Update (ASU) 2019-04, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, was issued to make improvements to updates 2016-01, *Financial Instruments – Overall* (Subtopic 825-10), 2016-13, *Financial Instruments – Credit Losses* (Topic 326) and 2017-12, *Derivatives and Hedging* (Topic 815). ASU 2016-13 significantly changes how entities account for credit losses for financial assets and certain other instruments, including trade receivables and contract assets, that are not measured at fair value through net income. The ASU requires a number of changes to the assessment of credit losses, including the utilization of an expected credit loss model, which requires consideration of a broader range of information to estimate expected credit losses over the entire lifetime of the asset, including losses where probability is considered remote. Additionally, the standard requires the estimation of lifetime expected losses for trade receivables and contract assets that are classified as current. The Company adopted these standards effective January 1, 2020 and determined the impact of the standards to be immaterial to the consolidated financial statements.

In April 2019, *Accounting Standards Update (ASU) 2019-04, Codification Improvements to Topic 326, Financial Instruments—Credit Losses, Topic 815, Derivatives and Hedging, and Topic 825, Financial Instruments*, was issued to make improvements to updates 2016-01, *Financial Instruments – Overall* (Subtopic 825-10), 2016-13, *Financial Instruments – Credit Losses* (Topic 326) and 2017-12, *Derivatives and Hedging* (Topic 815). The Company adopted this standard effective January 1, 2020 and determined the impact of this standard to be immaterial to the consolidated financial statements.

In January 2017, *Accounting Standards Update (ASU) 2017-04, Intangibles – Goodwill and Other (Topic 350)*, was issued to simplify how an entity is required to test goodwill for impairment by eliminating Step 2 from the goodwill impairment test. Step 2 measures a goodwill impairment loss by comparing the implied fair value of a reporting unit's goodwill with the carrying amount of that goodwill. The Company adopted this standard effective January 1, 2020.

In August 2016, *Accounting Standards Update (ASU) 2016-15, Statement of Cash Flows (Topic 230)s: Classification of Certain Cash Receipts and Cash Payments*, was issued to reduce the existing diversity in practice in how certain cash receipts and cash payments are presented and classified in the statement of cash flows. The Company adopted this standard in 2019 and determined the impact of this standard to be immaterial to the consolidated financial statements.

Recently Issued and Not Yet Adopted Accounting Pronouncements

In August 2020, *Accounting Standards Update (ASU) 2020-06, Debt – Debt With Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity,* was issued to address issues identified as a result of the complexity associated with applying GAAP for certain financial instruments with characteristics of liabilities and equity. This update is effective after December 15, 2021. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In March 2020, *Accounting Standards Update (ASU) 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting*, was issued to provide temporary optional expedients and exceptions to the GAAP guidance on contract modifications and hedge accounting to ease the financial reporting burdens related to the expected market transition from the London Interbank Offered Rate (LIBOR) and other interbank offered rates to alternative reference rates. This update is effective starting March 12, 2020 and the Company may elect to apply the amendments prospectively through December 31, 2022. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In March 2020, *Accounting Standards Update (ASU) 2020-03, Codification Improvements to Financial Instruments*, was issued to make various codification improvements to financial instruments to make the standards easier to understand and apply by eliminating inconsistencies and providing clarifications. This update will be effective at various dates as described in this ASU. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

In December 2019, *Accounting Standards Update (ASU) 2019-12, Simplifying the Accounting for Income Taxes*, was issued to identify, evaluate, and improve areas of GAAP for which cost and complexity can be reduced while maintaining or improving the usefulness of the information provided to users of financial statements. This update will be effective beginning after December 15, 2020. The Company is evaluating the adoption method as well as the impact this update will have on the consolidated financial statements.

Item 3 — Quantitative and Qualitative Disclosures about Market Risk

From time to time, we may invest our cash in government, government backed and interest-bearing investment-grade securities that we generally hold for the duration of the term of the respective instrument. We do not utilize derivative financial instruments, derivative commodity instruments or other market risk sensitive instruments, positions or transactions in any material fashion, except for the 5.5% Notes Capped Call and Common Stock Forward purchased in March 2018 related to the issuance of 5.5% Convertible Senior Notes and the 3.75% Notes Capped Call purchased in May 2020 related to the issuance of 3.75% Convertible Senior Notes. We are not subject to any material risks arising from changes in interest rates, foreign currency exchange rates, commodity prices, equity prices or other market changes that affect market risk sensitive instruments.

Our exposure to changes in foreign currency rates is primarily related to sourcing inventory from foreign locations and operations of HyPulsion, S.A.S., our French subsidiary that develops and sells hydrogen fuel cell systems for the European material handling market. This practice can give rise to foreign exchange risk resulting from the varying cost of inventory to the receiving location. The Company reviews the level of foreign content as part of its ongoing evaluation of overall sourcing strategies and considers the exposure to be not significant. Our HyPulsion exposure presently is mitigated by low levels of operations and its sourcing is primarily intercompany in nature and denominated in U.S. dollars.

Item 4 — Controls and Procedures

(a) Disclosure controls and procedures.

The chief executive officer and chief financial officer, based on their evaluation of disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of the end of the period covered by this Quarterly Report on Form 10-Q, have concluded that the Company's disclosure controls and procedures are effective for ensuring that information required to be disclosed in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Commission's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in filed or submitted reports is accumulated and communicated to the Company's management, including its principal executive officer and principal financial officer as appropriate, to allow timely decisions regarding required disclosure.

(b) Changes in internal control over financial reporting.

There were no changes in the Company's internal control over financial reporting that occurred during the last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1 — Legal Proceedings

On August 28, 2018, a lawsuit was filed on behalf of multiple individuals against the Company and five corporate co-defendants in the 9th Judicial District Court, Rapides Parish, Louisiana. The lawsuit relates to the previously disclosed May 2018 accident involving a forklift powered by the Company's fuel cell at a Procter & Gamble facility in Louisiana. The lawsuit alleges claims against the Company and co-defendants, including Structural Composites Industries, Deep South Equipment Co., Air Products and Chemicals, Inc., and Hyster-Yale Group, Inc. for claims under the Louisiana Product Liability Act, or LPLA, including defect in construction and/or composition, design defect, inadequate warning, breach of express warranty and negligence for wrongful death and personal injuries, among other damages. Procter & Gamble has intervened in that suit to recover worker's compensation benefits paid to or for the employees/dependents. Procter & Gamble has also filed suit for property damage, business interruption, loss of revenue, expenses, and other damages. Procter & Gamble alleges theories under the LPLA, breach of warranty and quasi-contractual claims under Louisiana law. Defendants include the Company and several of the same co-defendants from the August 2018 lawsuit, including Structural Composites Industries ("SCI"), an affiliate of Worthington Industries, Deep South Equipment Co., and Hyster-Yale Group, Inc. Fact and expert discovery among the parties is ongoing, and the former of the two cases was set for mediation for early November 2020 until it was postponed due to further discovery requests by the parties and delays caused by the impact of COVID-19. We continue to defend against these lawsuits vigorously. We are unable to estimate the possible loss or range of loss, if any, associated with these lawsuits, but the Company does not expect the lawsuits to have a material impact on the Company's financial position, liquidity or results of operations, or to otherwise have a material adverse effect on the Company.

Item 1A – Risk Factors

The risk factors discussed under the heading "Risk Factors" and elsewhere in the Company's Annual Report on Form 10-K for the year ended December 31, 2019 and Quarterly Report on Form 10-Q for the quarter ended June 30, 2020 continue to apply to our business.

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

(a) Not applicable.

(b) Not applicable.

(c) None.

Item 3 — Defaults Upon Senior Securities

None.

Item 4 — Mine Safety Disclosures

None.

Item 5 — Other Information

(a) None.

(b) None.

Item 6 — Exhibits

1.1	Underwriting Agreement, dated August 11, 2020, by and among Plug Power Inc. and Morgan Stanley & Co. LLC, as representative of the several underwriters named in Schedule I thereto
31.1 (1)	Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2 (1)	Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1 (1)	Certification pursuant to 18 U.S.C. Section 1350, adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2 (1)	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 (1)
101.SCH*	XBRL Taxonomy Extension Schema Document (1)
101.CAL*	XBRL Taxonomy Extension Calculation Linkbase Document (1)
101.DEF*	XBRL Taxonomy Extension Definition Linkbase Document (1)
101.LAB*	XBRL Taxonomy Extension Labels Linkbase Document (1)

101.PRE*	XBRL Taxonomy Extension Presentation Linkbase Document (1)
104	Cover Page Interactive Data File (embedded within the Inline XBRL document) (1)

(1) Filed herewith.

* Submitted electronically herewith.

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: November 09, 2020

By: /s/ Andrew Marsh
Andrew Marsh
President, Chief Executive Officer and Director (Principal Executive Officer)

Date: November 09, 2020

By: /s/ Paul B. Middleton
Paul B. Middleton
Chief Financial Officer (Principal Financial Officer)

Exhibit 31.1

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.

Date: November 9, 2020

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

Exhibit 31.2

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.

Date: November 9, 2020

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

Exhibit 32.1

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 September 30, 2020 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

November 9, 2020

Exhibit 32.2

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 September 30, 2020 as filed with the Securities and Exchange Commission (the "SEC") on the date hereof (the "Report"), I, Paul B. Middleton, Interim 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

November 9, 2020