

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 10-Q

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

For the quarterly period ended January 31, 2019

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: 1-14204

FUELCELL ENERGY, INC.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

3 Great Pasture Road
Danbury, Connecticut
(Address of principal executive offices)

06-0853042
(I.R.S. Employer
Identification No.)

06810
(Zip Code)

Registrant's telephone number, including area code: (203) 825-6000

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See 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	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
Emerging growth company	<input type="checkbox"/>		

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

Number of shares of common stock, par value \$0.0001 per share, outstanding as of March 4, 2019: 129,497,420

FUELCELL ENERGY, INC.

FORM 10-Q

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FUELC ELL EN ERGY, INC.
Consolidated Balance Sheets
(Unaudited)
(Amounts in thousands, except share and per share amounts)

	January 31, 2019	October 31, 2018
ASSETS		
Current assets:		
Cash and cash equivalents, unrestricted	\$ 27,750	\$ 39,291
Restricted cash and cash equivalents - short-term	5,601	5,806
Accounts receivable, net	8,321	9,280
Unbilled receivables	12,387	13,759
Inventories	54,802	53,575
Other current assets	8,273	8,592
Total current assets	117,134	130,303
Restricted cash and cash equivalents - long-term	34,863	35,142
Project assets	109,819	99,600
Property, plant and equipment, net	47,405	48,204
Goodwill	4,075	4,075
Intangible asset	9,592	9,592
Other assets	23,067	13,505
Total assets	<u>\$ 345,955</u>	<u>\$ 340,421</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 38,869	\$ 17,596
Accounts payable	19,905	22,594
Accrued liabilities	11,051	7,632
Deferred revenue	17,213	11,347
Preferred stock obligation of subsidiary	951	952
Total current liabilities	87,989	60,121
Long-term deferred revenue	22,769	16,793
Long-term preferred stock obligation of subsidiary	15,282	14,965
Long-term debt and other liabilities	66,883	71,619
Total liabilities	192,923	163,498
Redeemable Series B preferred stock (liquidation preference of \$64,020 as of January 31, 2019 and October 31, 2018)	59,857	59,857
Redeemable Series C preferred stock (liquidation preference of \$7,470 and \$8,992 as of January 31, 2019 and October 31, 2018, respectively)	7,470	7,480
Redeemable Series D preferred stock (liquidation preference of \$25,426 and \$30,680 as of January 31, 2019 and October 31, 2018, respectively)	26,851	27,392
Total equity:		
Stockholders' equity:		
Common stock (\$0.0001 par value); 225,000,000 shares authorized as of January 31, 2019 and October 31, 2018; 108,415,259 and 95,672,237 shares issued and outstanding as of January 31, 2019 and October 31, 2018, respectively	11	10
Additional paid-in capital	1,074,308	1,073,454
Accumulated deficit	(1,015,069)	(990,867)
Accumulated other comprehensive loss	(396)	(403)
Treasury stock, Common, at cost (156,501 shares as of January 31, 2019 and October 31, 2018)	(363)	(363)
Deferred compensation	363	363
Total stockholders' equity	58,854	82,194
Total liabilities and stockholders' equity	<u>\$ 345,955</u>	<u>\$ 340,421</u>

See accompanying notes to consolidated financial statements.

F FUELCELL ENERGY, INC.
Consolidated Statements of Operations and Comprehensive Loss
(Unaudited)
(Amounts in thousands, except share and per share amounts)

	Three Months Ended January 31,	
	2019	2018
Revenues:		
Product	\$ —	\$ 29,530
Service and license	11,772	4,104
Generation	1,479	1,892
Advanced Technologies	4,532	3,087
Total revenues	<u>17,783</u>	<u>38,613</u>
Costs of revenues:		
Product	3,422	26,137
Service and license	12,319	3,406
Generation	1,636	1,609
Advanced Technologies	2,611	2,826
Total costs of revenues	<u>19,988</u>	<u>33,978</u>
Gross (loss) profit	<u>(2,205)</u>	<u>4,635</u>
Operating expenses:		
Administrative and selling expenses	6,759	6,142
Research and development expenses	6,280	4,046
Total costs and expenses	<u>13,039</u>	<u>10,188</u>
Loss from operations	(15,244)	(5,553)
Interest expense	(2,464)	(2,141)
Other income, net	160	476
Loss before benefit for income taxes	(17,548)	(7,218)
Benefit for income taxes	—	3,035
Net loss	(17,548)	(4,183)
Series B preferred stock dividends	(800)	(800)
Series C preferred stock deemed dividends and redemption value adjustment	(9,005)	(3,463)
Series D Preferred stock deemed dividends and redemption accretion	(5,685)	-
Net loss attributable to common stockholders	<u>\$ (33,038)</u>	<u>\$ (8,446)</u>
Loss per share basic and diluted:		
Net loss per share attributable to common stockholders	\$ (0.33)	\$ (0.12)
Basic and diluted weighted average shares outstanding	99,860,421	72,024,811
	Three Months Ended January 31,	
	2019	2018
Net loss	\$ (17,548)	\$ (4,183)
Other comprehensive loss:		
Foreign currency translation adjustments	7	33
Total comprehensive loss	<u>\$ (17,541)</u>	<u>\$ (4,150)</u>

See accompanying notes to consolidated financial statements.

FU ELCELL ENERGY, INC.
Consolidated Statements of Cash Flows
(Unaudited)
(Amounts in thousands)

	Three Months Ended January 31,	
	2019	2018
Cash flows from operating activities:		
Net loss	\$ (17,548)	\$ (4,183)
Adjustments to reconcile net loss to net cash used in operating activities:		
Share-based compensation	982	617
Loss from change in fair value of embedded derivatives	22	55
Depreciation	2,199	2,128
Non-cash interest expense on preferred stock and debt obligations	1,574	1,491
Unrealized foreign exchange (gains) losses	(12)	534
Deferred income taxes	—	(3,035)
Other non-cash transactions, net	187	—
Decrease (increase) in operating assets:		
Accounts receivable	1,329	26,280
Unbilled receivables	(7,828)	344
Inventories	(1,227)	14,784
Other assets	139	(1,108)
Increase (decrease) in operating liabilities:		
Accounts payable	(152)	(2,898)
Accrued liabilities	2,532	3,074
Deferred revenue	5,845	1,914
Net cash (used in) provided by operating activities	(11,958)	39,997
Cash flows from investing activities:		
Capital expenditures	(1,591)	(2,816)
Project asset expenditures	(12,633)	(4,577)
Net cash used in investing activities	(14,224)	(7,393)
Cash flows from financing activities:		
Repayment of debt	(1,610)	(6,253)
Proceeds from debt	17,250	—
Payment of deferred financing costs	(485)	—
Payment of preferred dividends and return of capital	(1,036)	(1,048)
Common stock issued for stock plans and related expenses	31	—
Proceeds from sale of common stock and warrant exercises, net	—	2,647
Net cash provided by (used in) financing activities	14,150	(4,654)
Effects on cash from changes in foreign currency rates	7	33
Net (decrease) increase in cash, cash equivalents and restricted cash	(12,025)	27,983
Cash, cash equivalents and restricted cash—beginning of period	80,239	87,448
Cash, cash equivalents and restricted cash—end of period	\$ 68,214	\$ 115,431
Supplemental cash flow disclosures:		
Cash interest paid	\$ 827	\$ 651
Noncash financing and investing activity:		
Series C preferred share conversions	1,974	7,569
Series D preferred share conversions	4,334	—
Accrued purchase of fixed assets, cash paid in subsequent period	107	1,231
Accrued purchase of project assets, cash paid in subsequent period	2,050	1,750

See accompanying notes to consolidated financial statements.

F UELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

Note 1. Nature of Business and Basis of Presentation

FuelCell Energy, Inc., together with its subsidiaries (the "Company", "FuelCell Energy", "we", "us", or "our") is a leading integrated fuel cell company with a growing global presence. We design, manufacture, install, operate and service ultra-clean, efficient and reliable stationary fuel cell power plants. Our SureSource power plants generate electricity and usable high quality heat for commercial, industrial, government and utility customers. We have commercialized our stationary carbonate fuel cells and are also pursuing the complementary development of planar solid oxide fuel cells and other fuel cell technologies. Our operations are funded primarily through sales of equity instruments to strategic investors or in public markets, corporate and project level debt financing and local or state government loans or grants. In order to produce positive cash flow from operations, we need to be successful at increasing annual order volume and production and in our cost reduction efforts.

Basis of Presentation

The accompanying unaudited consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial information. Accordingly, they do not contain all of the information and footnotes required by accounting principles generally accepted in the United States of America ("GAAP") for complete financial statements. In the opinion of management, all normal and recurring adjustments necessary to fairly present the Company's financial position and results of operations as of and for the three months ended January 31, 2019 and 2018 have been included. All intercompany accounts and transactions have been eliminated.

Certain information and footnote disclosures normally included in financial statements prepared in accordance with GAAP have been condensed or omitted. The balance sheet as of October 31, 2018 has been derived from the audited financial statements at that date, but it does not include all of the information and footnotes required by GAAP for complete financial statements. These financial statements should be read in conjunction with the Company's financial statements and notes thereto for the fiscal year ended October 31, 2018, which are contained in the Company's Annual Report on Form 10-K previously filed with the SEC. The results of operations for the interim periods presented are not necessarily indicative of results that may be expected for any other interim period or for the full fiscal year.

Certain reclassifications have been made to the prior year amounts to conform to the current year presentation. The Company has adopted Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)" and has applied a modified retrospective transition method. As a result of the adoption of this ASU, Unbilled receivables has been reclassified as a separate line item from Accounts receivable, net on the Consolidated Balance Sheets and Unbilled receivables has been classified as a separate item from Accounts receivable, net in the Consolidated Statement of Cash Flows for the prior year period.

Liquidity

The Company's future liquidity will be dependent on obtaining a combination of increased order and contract volumes, increased cash flows from the Company's generation and service portfolios and cost reductions necessary to achieve profitable operations. To grow its generation portfolio, the Company will invest in developing and building turn-key fuel cell projects which will be owned by the Company and classified as project assets on the balance sheet. This strategy requires liquidity and is expected to continue to have increasing liquidity requirements as project sizes increase. The Company may commence building project assets upon the award of a project or execution of a multi-year power purchase agreement ("PPA") with an end-user that has a strong credit profile. Project development and construction cycles, which span the time between securing a PPA and commercial operation of the plant, vary substantially and can take years. As a result of these project cycles and strategic decisions to finance the construction of certain projects, the Company may need to make significant up-front investments of resources in advance of the receipt of any cash from the sale or long-term financing of such projects. These up-front investments may include using the Company's working capital, availability under the Company's construction financing facilities or other financing arrangements. Delays in construction progress or in completing financing or the sale of the Company's projects may impact the Company's liquidity.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

The Company expects to maintain appropriate cash and debt levels based upon its expected cash requirements for operations, capital expenditures, construction of project assets and principal, interest and dividend payments. In the future, the Company may also engage in additional debt or equity financings, including project specific debt financings under existing and new facilities. The Company believes that, when necessary, it will have adequate access to the capital markets, although the timing, size and terms of any financing will depend on multiple factors, including market conditions, future order flow and the need to adjust production capacity. There can be no assurance that the Company will be able to raise additional capital at the times, in the amounts, or on the terms required for the implementation of its business plan and strategy. In addition, the Company's capital-intensive business model of building generation assets increases the risk that the Company will be unable to successfully implement its plans, particularly if the Company does not raise additional capital in the amounts required. If the Company is unable to raise additional capital at the times or in the amounts required, or on terms favorable to the Company, the Company's growth potential may be adversely affected and the Company may have to modify its plans which could include restructuring, workforce reductions, change in production volumes and asset or intellectual property sales. If these strategies are not successful, the Company may be required to delay, reduce and/or cease its operations.

The Company believes that its current working capital and cash anticipated to be generated from future operations, as well as recent debt incurred and cash received under its project financing facilities and remaining availability under these project financing facilities (refer to Note 14, "Debt and Financing Obligation" for more information) and proceeds from future equity offerings, will provide sufficient liquidity to fund operations for at least the next twelve months. The Company has an At Market Issuance Sales Agreement in place (refer to Note 10, "Stockholders' Equity" for more information) which could supplement proceeds through equity offerings dependent upon market conditions.

Use of Estimates

The preparation of financial statements and related disclosures in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Estimates are used in accounting for, among other things, revenue recognition, contract loss accruals, excess, slow-moving and obsolete inventories, product warranty accruals, loss accruals on service agreements, share-based compensation expense, allowance for doubtful accounts, depreciation and amortization, impairment of goodwill and in-process research and development intangible assets, impairment of long-lived assets (including project assets), income taxes and contingencies. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary. Due to the inherent uncertainty involved in making estimates, actual results in future periods may differ from those estimates.

Note 2. Recent Accounting Pronouncements

Recently Adopted Accounting Guidance

In May 2014, the Financial Accounting Standards Board (the "FASB") issued ASU 2014-09, "Revenue from Contracts with Customers (Topic 606)". The objective of this ASU is to remove inconsistent practices with regard to revenue recognition in and between US GAAP and International Financial Reporting Standards. ASU 2014-09 intends to improve comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets. The adoption of this ASU resulted in a cumulative effect adjustment increasing Accumulated deficit by \$6.7 million on November 1, 2018.

Recent Accounting Guidance Not Yet Effective

In February 2016, the FASB issued ASU 2016-02, "Leases" which, for operating leases, requires a lessee to recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in its balance sheet. The standard also requires a lessee to recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term, generally on a straight-line basis. This ASU is effective for public companies for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years (which, for the Company, will be the first quarter of fiscal year 2020). Early adoption is permitted. The Company has both operating and capital leases (refer to Note 16. "Commitments and Contingencies") as well as sale-leasebacks accounted for under the finance method and may have other arrangements that contain embedded leases as characterized in this ASU. The Company expects that adoption of this ASU will result in the recognition of right-of-use assets and lease liabilities not currently recorded in its consolidated financial statements under existing accounting guidance. However, the Company is still evaluating all of its contractual arrangements and the impact that adoption of ASU 2016-02 will have on the Company's consolidated financial statements.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)

(Tabular amounts in thousands, except share and per share amounts)

In January 2017, the FASB issued ASU 2017-04, “Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment” which provides for a one-step quantitative impairment test, whereby a goodwill impairment loss will be measured as the excess of a reporting unit’s carrying amount over its fair value (not to exceed the total goodwill allocated to that reporting unit). It eliminates Step 2 of the current two-step goodwill impairment test, under which a goodwill impairment loss is measured by comparing the implied fair value of a reporting unit’s goodwill with the carrying amount of that goodwill. The standard is effective, on a prospective basis for interim and annual periods beginning after December 15, 2019, with early adoption permitted. The Company adopted this ASU effective November 1, 2018. The adoption of this ASU did not have an impact on the Company’s consolidated financial statements.

Note 3. Revenue Recognition

Under Accounting Standards Codification (ASC) Topic 606: *Revenue from Contracts with Customer* (“Topic 606”), the amount of revenue recognized for any goods or services reflects the consideration that the Company expects to be entitled to receive in exchange for these goods or services. To achieve this core principle, the Company applies the following five step approach: (1) identify the contract with a customer; (2) identify the performance obligations in the contract; (3) determine the transaction price; (4) allocate the transaction price to performance obligations in the contract; and (5) recognize revenue when or as a performance obligation is satisfied.

A contract is accounted for when there has been approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance and collectability of consideration is probable. Performance obligations under a contract are identified based on the goods or services that will be transferred to the customer that are both capable of being distinct and are distinct in the context of the contract. In certain instances, the Company has concluded distinct goods or services should be accounted for as a single performance obligation that is a series of distinct goods or services that have the same pattern of transfer to the customer. To the extent a contract includes multiple promised goods or services, the Company must apply judgment to determine whether the customer can benefit from the goods or services either on their own or together with other resources that are readily available to the customer (the goods or services are distinct) and if the promise to transfer the goods or services to the customer is separately identifiable from other promises in the contract (the goods or services are distinct in the context of the contract). If these criteria are not met, the promised services are accounted for as a single performance obligation. The transaction price is determined based on the consideration that the Company will be entitled to in exchange for transferring goods or services to the customer. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price, generally utilizing the expected value method. Determining the transaction price requires judgment. If the contract contains a single performance obligation, the entire transaction price is allocated to the single performance obligation. Contracts that contain multiple performance obligations require an allocation of the transaction price to each performance obligation based on a relative standalone selling price basis. Standalone selling price is determined by the price at which the performance obligation is sold separately. If the standalone selling price is not observable through past transactions, the Company estimates the standalone selling price by taking into account available information such as market conditions and internally approved pricing guidelines related to the performance obligations. Performance obligations are satisfied either over time or at a point in time as discussed in further detail below. In addition, the Company’s contracts with customers generally do not include significant financing components or non-cash consideration.

Revenue streams are classified as follows:

Product. Includes the sale of completed project assets, sale and installation of fuel cell power plants including site engineering and construction services, and the sale of modules, balance of plant (“BOP”) components and spare parts to customers.

Service. Includes performance under long-term service agreements for power plants owned by third parties.

License and royalty. Includes license fees and royalty income from manufacturing and technology transfer agreements.

Generation. Includes the sale of electricity under PPAs and utility tariffs from project assets retained by the Company. This also includes revenue received from the sale of other value streams from these assets including the sale of heat, steam and renewable energy credits.

Advanced Technologies. Includes revenue from customer-sponsored and government-sponsored Advanced Technologies projects.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

Revenue Recognition Accounting Policy Summary

The Company accounts for revenue in accordance with Topic 606. Under Topic 606, a performance obligation is a promise in a contract with a customer to transfer a distinct good or service to the customer. A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. When there are multiple performance obligations within a contract, the Company allocates the transaction price to each performance obligation based on its relative stand-alone selling price.

The Company considers the contractual consideration payable by the customer and assesses variable consideration that may affect the total transaction price when determining the transaction price of each contract. To the extent the transaction price includes variable consideration, the Company estimates the amount of variable consideration that should be included in the transaction price, generally utilizing the expected value method. These estimates are based on historical experience, anticipated performance and the Company's best judgment at the time.

See below for discussion of revenue recognition under Topic 606 by disaggregated revenue stream, including a comparison to revenue recognition treatment under ASC 605, *Revenue Recognition* ("ASC 605").

Completed project assets

Contracts for the sale of completed project assets includes the sale of the project asset, the assignment of the service agreement, and the assignment of the PPA. The relative stand-alone selling price is estimated and is used as the basis for allocation of the contract consideration. Revenue is recognized upon the satisfaction of the performance obligations, which includes the transfer of control of the project asset to the customer, which is when the contract is signed and the PPA is assigned to the customer. See below for further discussion regarding revenue recognition for service agreements. The revenue recognition for completed project assets under Topic 606 is consistent with treatment under ASC 605.

Contractual payments related to the sale of the project asset and assignment of the PPA are generally received up-front. Payment terms for service agreements are generally ratable over the term of the agreement.

Service agreements

Service agreements represent a single performance obligation whereby the Company performs all required maintenance and monitoring functions, including replacement of modules, to ensure the power plant(s) under the service agreement generate a minimum power output. To the extent the power plant(s) under service agreements do not achieve the minimum power output, certain service agreements include a performance guarantee penalty. Performance guarantee penalties represent variable consideration which is estimated for each service agreement based on past experience using the expected value method. The net consideration for each service agreement is recognized using costs incurred to date relative to total estimated costs at completion to measure progress. Under ASC 605, revenue for service agreements was generally recorded ratably over the term of the service agreement, as the performance of routine monitoring and maintenance under the service agreements was expected to be incurred on a straight-line basis. If there was an estimated module exchange(s) at some point during the term, the costs of performance were not expected to be incurred on a straight-line basis, and therefore a portion of the initial contract value relating to the module exchange(s) was deferred and recognized upon such module replacement event(s). Furthermore, under ASC 605, performance guarantee accruals were recorded based on actual performance and the related expense was recorded to service and license cost of revenues. Under the provisions of the Company's service agreements, the Company provides services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Under the terms of the service agreements, the particular power plant must meet a minimum operating output during defined periods of the term. If minimum output falls below the contract requirement, the Company may be subject to performance penalties and/or may be required to repair or replace the customer's fuel cell module(s). Prior to the implementation of Topic 606, an estimate for a performance guarantee was not recorded until a performance issue occurred at a particular power plant. At that point, the actual power plant's output was compared against the minimum output guarantee and an accrual was recorded. The review of power plant performance was updated for each reporting period to incorporate the most recent performance of the power plant and minimum output guarantee payments made to customers, if applicable. Under Topic 606, performance guarantees are considered variable consideration and as such, an estimate of future performance obligations is determined for each service agreement based on past payment history and is included as an offset to the service agreement consideration.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

The Company reviews its cost estimates on service contracts on a quarterly basis. The Company records changes in contract estimates on cumulative catch-up basis.

Loss accruals for long-term service agreements are recognized to the extent that the estimated remaining costs to satisfy the performance obligation exceed the estimated remaining unrecognized net consideration. Estimated losses are recognized in the period in which losses are identified.

The Company records any amounts that are billed to customers in excess of revenue recognized as deferred revenue and revenue recognized in excess of amounts billed to customers as unbilled receivables. Payment terms for service agreements are generally ratable over the term of the agreement.

Advanced Technologies contracts

Advanced Technologies contracts include the promise to perform research and development services and as such this represents one performance obligation. Revenue from most government sponsored Advanced Technologies projects is recognized as direct costs are incurred plus allowable overhead less cost share requirements, if any. Revenue is only recognized to the extent the contracts are funded. Revenue from fixed price Advanced Technologies projects is recognized using the cost to cost input method. There was no impact of adoption of Topic 606 on revenue recognition for Advanced Technologies contracts.

The Company records any amounts that are billed to customers, in excess of revenue recognized as deferred revenue and revenue recognized in excess of amounts billed to customers as unbilled receivables. Payments are based on costs incurred for government sponsored Advanced Technologies projects and upon completion of milestones for all other projects.

License agreement

The Company entered into manufacturing and technology transfer agreements (the "license agreements") with POSCO Energy Co., Ltd. ("POSCO Energy") in 2007, 2009 and 2012. Revenue from the license fees received from POSCO Energy were previously recognized over the term of the associated agreements. In connection with the adoption of Topic 606, several performance obligations were identified including previously satisfied performance obligations for the transfer of licensed intellectual property, two performance obligations for specified upgrades of the previously licensed intellectual property, a performance obligation to deliver unspecified upgrades to the previously licensed intellectual property on a when and if available basis, and a performance obligation to provide technical support for previously delivered intellectual property. The performance obligations related to the specified upgrades will be satisfied and related consideration recognized as revenue upon the delivery of the specified upgrades. The performance obligations for unspecified upgrades and technical support are being recognized on a straight-line basis over the license term on the basis this represents the method that best depicts the progress towards completion of the related performance obligations.

All fixed consideration for the license agreement was previously collected.

Generation revenue

For project assets where customers purchase electricity from the Company under PPAs, the Company has determined that these agreements should be accounted for as operating leases pursuant to ASC 840, *Leases*. Revenue is recognized based on the amount of electricity delivered at rates specified under the contracts, assuming all other revenue recognition criteria are met.

Payments for electricity are made after the electricity has delivered.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)

(Tabular amounts in thousands, except share and per share amounts)

The cumulative effect of the changes made to the Company's Consolidated Balance Sheets as of November 1, 2018 as a result of the adoption of Topic 606 was as follows:

	October 31, 2018	Adjustments due to Topic 606	Balance at November 1, 2018
ASSETS			
Unbilled receivables	\$ 13,759	\$ 471	\$ 14,230
Other assets	13,505	(132)	13,373
LIABILITIES			
Accrued liabilities	\$ 7,632	\$ 995	\$ 8,627
Deferred revenue, current portion	11,347	(240)	11,107
Long-term deferred revenue	16,793	6,238	23,031
EQUITY			
Accumulated deficit	\$ (990,867)	\$ (6,654)	\$ (997,521)

The increase in long-term deferred revenue primarily pertains to license arrangement consideration previously recognized as revenue under ASC 605 that will be recognized when the specified upgrade performance obligations are satisfied.

The following tables summarize the impacts of Topic 606 on the Company's consolidated financial statements.

	January 31, 2019		
	As reported	Adjustments	Balances without adoption of Topic 606
ASSETS			
Unbilled receivables	\$ 12,387	\$ (226)	\$ 12,161
Other assets	23,067	(942)	22,125
LIABILITIES			
Accrued liabilities	\$ 11,051	\$ (2,310)	\$ 8,741
Deferred revenue	17,213	(495)	16,718
Long-term deferred revenue	22,769	(6,472)	16,297
EQUITY			
Accumulated deficit	\$ (1,015,069)	\$ 8,109	\$ (1,006,960)

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	For the Three Months Ended January 31, 2019		
	As reported	Adjustments	Balances without adoption of Topic 606
Total revenues	\$ 17,783	\$ 1,548	\$ 19,331
Total cost of revenues	19,988	275	20,263
Gross loss	(2,205)	1,273	(932)
Administrative and selling expenses	6,759	—	6,759
Research and development expenses	6,280	—	6,280
Loss from operations	(15,244)	1,273	(13,971)
Interest expense	(2,464)	—	(2,464)
Other income, net	160	—	160
Loss before provision for income taxes	—	—	—
Provision for income taxes	—	—	—
Net loss	\$ (17,548)	\$ 1,273	\$ (16,275)

For the three-month period ended January 31, 2019, the only adjustment to comprehensive loss when comparing the balances with Topic 606 and the balances without Topic 606 included the adjustment to net loss.

For the three-month period ended January 31, 2019, the impact of adoption of Topic 606 on the Consolidated Statement of Cash Flows included an adjustment to net loss of \$1.3 million and adjustments to changes in operating assets and liabilities consistent with the impact of adoption of Topic 606 on the January 31, 2019 Consolidated Balance Sheet as reflected above.

Contract Balances

Contract assets as of January 31, 2019 and October 31, 2018 were \$29.8 million and \$23.2 million, respectively. The contract assets relate to the Company's rights to consideration for work completed but not billed. These amounts are included on a separate line item as Unbilled receivables and within Other assets on the accompanying consolidated balance sheets. The net change in contract assets represents amounts recorded as revenue offset by customer billings. A total of \$4.1 million was transferred to accounts receivable from contract assets recognized at the beginning of the period.

Contract liabilities as of January 31, 2019 and October 31, 2018 were \$40.0 million and \$28.1 million, respectively. The contract liabilities relate to the advance billings to customers for services that will be recognized over time and in some instances for deferred revenue relating to license performance obligations that will be recognized at a future point in time. These amounts are included within Deferred revenue and Long-term deferred revenue on the accompanying consolidated balance sheets. The net change in contract liabilities represents customer billings offset by revenue recorded.

Remaining Performance Obligations

Remaining performance obligations are the aggregate amount of total contract transaction price that is unsatisfied or partially unsatisfied. As of January 31, 2019, the Company's total remaining performance obligations for service agreements, license agreements and Advanced Technologies contracts were \$328.2 million. License revenue recognized over time will be over the term of the license agreement. License revenue recognized at a point in time will be recognized when the first specified upgrade that has been developed is delivered and the second specified upgrade when it is developed and delivered. Service revenue in periods where there are no module replacements is expected to be relatively consistent from period to period whereas module replacements will result in an increase in revenue.

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Note 4 . Accounts Receivable, Net and Unbilled Receivables

Accounts receivable, net and Unbilled receivables as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Commercial Customers:		
Amount billed	\$ 7,809	\$ 7,415
Unbilled receivables (1)	11,194	10,632
	<u>19,003</u>	<u>18,047</u>
Advanced Technologies (including U.S. government (2)):		
Amount billed	512	1,865
Unbilled receivables	1,193	3,127
	<u>1,705</u>	<u>4,992</u>
Accounts receivable, net and unbilled receivables	<u>\$ 20,708</u>	<u>\$ 23,039</u>

- (1) Additional long-term unbilled receivables of \$17.4 million and \$9.4 million are included within "Other Assets" as of January 31, 2019 and October 31, 2018, respectively.
- (2) Total U.S. government accounts receivable, including unbilled receivables, outstanding as of January 31, 2019 and October 31, 2018 were \$0.8 million and \$2.3 million, respectively.

The Company bills customers for power plant and power plant component sales based on certain contractual milestones being reached. The Company bills service agreements based on the contract price and billing terms of the contracts. Generally, the Company's Advanced Technologies contracts are billed based on actual revenues recorded, typically in the subsequent month. Some Advanced Technologies contracts are billed based on contractual milestones or costs incurred. Unbilled receivables relate to revenue recognized on customer contracts that have not been billed. Accounts receivable are presented net of an allowance for doubtful accounts of \$0.3 million and \$0.2 million as of January 31, 2019 and October 31, 2018, respectively. Uncollectible accounts receivable are charged against the allowance for doubtful accounts when all collection efforts have failed and it is deemed unlikely that the amount will be recovered.

Note 5. Inventories

Inventories as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Raw materials	\$ 27,993	\$ 24,467
Work-in-process (1)	26,809	29,108
Inventories	<u>\$ 54,802</u>	<u>\$ 53,575</u>

- (1) Work-in-process includes the standard components of inventory used to build the typical modules or module components that are intended to be used in future project asset construction, power plant orders or for use under the Company's service agreements. Included in work-in-process as of January 31, 2019 and October 31, 2018 was \$17.2 million and \$19.0 million, respectively, of completed standard components.

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Raw materials consist mainly of various nickel powders and steels, various other components used in producing cell stacks and purchased components for balance of plant. Work-in-process inventory is comprised of material, labor, and overhead costs incurred to build balance of plant components, fuel cell stacks and modules, which are subcomponents of a power plant.

The Company incurred excess plant capacity and manufacturing variances of \$3.2 million and \$2.7 million for the three months ended January 31, 2019 and 2018, respectively, which were included within product cost of revenues on the consolidated statements of operations.

Note 6. Project Assets

Project assets as of January 31, 2019 and October 31, 2018 were \$109.8 million and \$99.6 million, respectively. Project assets as of January 31, 2019 and October 31, 2018 included five completed, commissioned installations generating power with respect to which the Company has a PPA with the end-user of power and site host with an aggregate carrying value of \$27.2 million and \$28.6 million as of January 31, 2019 and October 31, 2018, respectively. Certain of these assets are the subject of sale-leaseback arrangements with PNC Energy Capital, LLC (“PNC”), which are accounted for under the financing method.

The Project assets balance as of January 31, 2019 and October 31, 2018 also includes assets with an aggregate value of \$82.6 million and \$71.0 million, respectively, which are being developed and constructed by the Company under existing PPAs and have not been placed in service.

Project construction costs incurred for the long-term project assets are reported as investing activities in the Consolidated Statements of Cash Flows. The proceeds received from the sale and subsequent leaseback of project assets are classified as “Cash flows from financing activities” within the Consolidated Statements of Cash Flows and are classified as a financing obligation within “Current portion of long-term debt” and “Long-term debt and other liabilities” on the Consolidated Balance Sheets (refer to Note 14, “Debt and Financing Obligation” for more information).

Note 7. Other Current Assets

Other current assets as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Advance payments to vendors (1)	\$ 2,647	\$ 2,696
Deferred finance costs (2)	128	97
Prepaid expenses and other (3)	5,498	5,799
Other current assets	<u>\$ 8,273</u>	<u>\$ 8,592</u>

- (1) Advance payments to vendors relate to payments for inventory purchases ahead of receipt.
- (2) Represents the current portion of direct deferred finance costs that relate primarily to securing the \$40.0 million loan facility with Clearway Energy which are being amortized over the five-year life of the facility and securing the \$100.0 million credit facility with Generate Lending, LLC which are being amortized over a one-year period.
- (3) Primarily relates to other prepaid expenses including insurance, rent and lease payments.

Note 8. Other Assets

Other assets as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Long-term stack residual value (1)	\$ 987	\$ 1,206
Long-term unbilled receivables (2)	17,401	9,385
Other (3)	4,679	2,914
Other assets	<u>\$ 23,067</u>	<u>\$ 13,505</u>

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- (1) Relates to estimated residual value for module exchanges performed under the Company's service agreements where the useful life extends beyond the contractual term of the service agreement and the Company obtains title for the module from the customer upon expiration or non-renewal of the service agreement. If the Company does not obtain rights to title from the customer, the full cost of the module is expensed at the time of the module exchange.
- (2) Represents unbilled receivables that relate to revenue recognized on customer contracts that will be billed in future periods in excess of twelve months from the balance sheet date.
- (3) The Company entered into an agreement with one of its customers on June 29, 2016 that includes a fee for the purchase of the power plants at the end of the term of the agreement. The fee is payable in installments over the term of the agreement and the total paid as of January 31, 2019 and October 31, 2018 was \$2.0 million. Also included within "Other" are long-term security deposits.

Note 9. Accrued Liabilities

Accrued liabilities as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Accrued payroll and employee benefits	\$ 2,738	\$ 2,550
Accrued product warranty cost (1)	104	147
Accrued service agreement costs (2)	4,536	2,029
Accrued legal, taxes, professional and other	3,673	2,906
Accrued liabilities	<u>\$ 11,051</u>	<u>\$ 7,632</u>

- (1) Activity in the accrued product warranty costs for the three months ended January 31, 2019 represents reductions related to actual warranty spend of \$0.04 million as contracts progress through the warranty period or are beyond the warranty period.
- (2) The loss accruals on service contracts were \$0.9 million as of October 31, 2018 which increased to \$2.3 million as of January 31, 2019. The accruals for performance guarantees increased from \$1.1 million as of October 31, 2018 to \$2.2 million as of January 31, 2019. The changes in the accruals are a result of the impact of the adoption of Topic 606.

Note 10. Stockholders' Equity

Changes in stockholders' equity

Changes in stockholders' equity were as follows for the three months ended January 31, 2019:

	Total Stockholders' Equity
Balance as of October 31, 2018	\$ 82,194
Share-based compensation	987
Fee adjustment for common stock issuance	90
Common stock issued under benefit plans, net of taxes paid upon vesting of restricted stock awards	27
Preferred dividends – Series B	(800)
Series C convertible preferred stock conversions	1,974
Series C preferred stock adjustment for beneficial conversion feature	6,586
Series C preferred stock redemption value adjustments	(8,550)
Series D convertible preferred stock conversions	4,334
Series D preferred stock redemption accretion	(3,793)
Impact of the adoption of Topic 606	(6,654)
Other comprehensive income - foreign currency translation adjustments	7
Net loss	(17,548)
Balance as of January 31, 2019	<u>\$ 58,854</u>

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At Market Issuance Sales Agreement

On June 13, 2018, the Company entered into an At Market Issuance Sales Agreement (the “Sales Agreement”) with B. Riley FBR, Inc. and Oppenheimer & Co. Inc. (together, the “Agents”) to create an at the market equity program under which the Company from time to time may offer and sell shares of its common stock having an aggregate offering price of up to \$50,000,000 through the Agents. Under the Sales Agreement, the Agent making the sales will be entitled to a commission in an amount equal to 3.0% of the gross proceeds from such sales. There were no sales under the Sales Agreement during the three months ended January 31, 2019.

Public Offerings and Outstanding Warrants

On May 3, 2017, the Company completed an underwritten public offering of (i) 12,000,000 shares of its common stock, (ii) Series C warrants to purchase 12,000,000 shares of its common stock and (iii) Series D warrants to purchase 12,000,000 shares of its common stock. The Series C warrants have an exercise price of \$1.60 per share and a term of five years. The Series D warrants were all exercised prior to October 31, 2018. No shares of common stock were issued upon exercise of the Series C warrants during the first three months of fiscal year 2019.

On July 12, 2016, the Company closed on a registered public offering of securities to a single institutional investor pursuant to a placement agent agreement with J.P. Morgan Securities LLC. In conjunction with the offering, the Company issued 7,680,000 Series A Warrants, all of which remained outstanding as of January 31, 2019, with an exercise price of \$5.83 per share.

The following table summarizes outstanding warrant activity during the three months ended January 31, 2019:

	Series A Warrants	Series C Warrants
Balance as of October 31, 2018	7,680,000	11,569,364
Warrants exercised	—	—
Warrants expired	—	—
Balance as of January 31, 2019	<u>7,680,000</u>	<u>11,569,364</u>

Note 11. Redeemable Preferred Stock

The Company is authorized to issue up to 250,000 shares of preferred stock, par value \$0.01 per share, issuable in one or more series, of which shares to date have been issued and designated as Series D Convertible Preferred Stock (referred to herein as “Series D Preferred Stock”), Series C Convertible Preferred Stock (referred to herein as “Series C Preferred Stock”) and 5% Series B Cumulative Convertible Perpetual Preferred Stock (referred to herein as “Series B Preferred Stock”).

Series D Preferred Stock

On August 27, 2018, the Company entered into an underwriting agreement (the “Underwriting Agreement”) with Oppenheimer & Co. Inc. (the “Underwriter”), relating to an underwritten offering (the “Offering”) of the Company’s Series D Preferred Stock with a par value of \$0.01 per share. Subject to the terms and conditions contained in the Underwriting Agreement, the Underwriter agreed to purchase, and the Company agreed to sell, 30,680 shares of Series D Preferred Stock (“Series D Preferred Shares”), which were initially convertible into 22,231,884 shares of the Company’s common stock (without regard to any limitation on conversion set forth in the Certificate of Designations, Preferences and Rights of the Series D Preferred Stock of the Company (the “Series D Certificate of Designation”), at an initial conversion price of \$1.38 per share, subject to certain adjustments (“Series D Conversion Price”).

The Offering closed on August 29, 2018. The net proceeds to the Company from the sale of the Series D Preferred Stock, after deducting the underwriting discounts and commissions and the offering expenses payable by the Company, were approximately \$25.3 million.

In conjunction with the closing of the Offering, on August 29, 2018, the Company filed the Series D Certificate of Designation with the Secretary of State of the State of Delaware, designating 30,680 shares of the Company’s preferred stock as Series D Convertible Preferred Stock and establishing the rights, preferences, privileges, qualifications, restrictions, and limitations relating to the Series D Preferred Stock, as described below.

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During the three months ended January 31, 2019, holders of the Series D Preferred Stock converted 5,254 Series D Preferred Shares into 11,185,733 shares of common stock through installment conversions resulting in a reduction of \$4.3 million to the carrying value being recorded to equity. Installment conversions in which the conversion price is below \$1.38 (the conversion price of the Series D Preferred Stock as of January 31, 2019) result in a variable number of shares being issued to settle the installment amount and are treated as a partial redemption of the Series D Preferred Shares. Installment conversions during the three months ended January 31, 2019 that were settled in a variable number of shares and treated as redemptions resulted in deemed dividends of \$ 1.9 million. The deemed dividends represent the difference between the fair value of the shares of common stock issued to settle the installment amounts and the carrying value of the Series D Preferred Shares.

The Series D Preferred Stock redemption accretion of \$3.8 million for the three months ended January 31, 2019 reflects the accretion of the difference between the carrying value and the amount that would be redeemed should stockholder approval not be obtained for common stock issuance equal to 20.0% or more of the Company's outstanding voting stock prior to the issuance of the Series D Preferred Stock. In the event that the Company is unable to obtain such stockholder approval and is therefore prohibited from issuing shares of common stock as a result of this limitation (the "Exchange Cap Shares") to a holder of Series D Preferred Stock at any time after April 30, 2019, the Company shall pay cash to such holder in exchange for the redemption of such number of Series D Preferred Shares held by such holder that are not convertible into such Exchange Cap Shares at a price equal to the product of (i) such number of Exchange Cap Shares and (ii) the closing sale price on the trading day immediately preceding the date such holder delivers the applicable conversion notice with respect to such Exchange Cap Shares to the Company.

Based on review of pertinent accounting literature including ASC 470 – *Debt*, ASC 480 - *Distinguishing Liabilities from Equity* and ASC 815 - *Derivative and Hedging*, the Series D Preferred Shares are classified outside of permanent equity on the Consolidated Balance Sheets and were recorded at fair value on the issuance date (proceeds from the issuance, net of direct issuance cost). As discussed above, the Company has not obtained stockholder approval to issue a number of shares of common stock equal to 20% or more of the Company's outstanding voting stock prior to the issuance of the Series D Preferred Stock and therefore is accreting the difference between the carrying value and redemption value if stockholder approval is not obtained. As of January 31, 2019, the Company determined that none of the other contingent redemption features were probable.

A description of certain terms and provisions of the Series D Preferred Shares is as follows:

Conversion Right. The Series D Preferred Shares are convertible into shares of the Company's common stock, subject to the requirements of Nasdaq Listing Rule 5635(d) and the beneficial ownership limitation provided in the Series D Certificate of Designation, at a conversion price equal to \$1.38 per share of common stock, subject to adjustment as provided in the Series D Certificate of Designation, including adjustments if the Company sells shares of common stock or equity securities convertible into or exercisable for shares of common stock, at prices below \$1.38 per share, in certain types of transactions. The holders are prohibited from converting Series D Preferred Shares into shares of common stock if, as a result of such conversion, such holder, together with its affiliates, would own more than 4.99% of the total number of shares of common stock then issued and outstanding. Each holder has the right to increase its maximum percentage up to 9.99% upon 60 days' notice to the Company. Additionally, prior to receiving stockholder approval of the issuance of 20.0% or more of the Company's outstanding voting stock prior to the issuance of the Series D Preferred Stock, the holders will be prohibited from converting Series D Preferred Shares into shares of common stock if such conversion would cause the Company to issue pursuant to the terms of the Series D Preferred Stock a number of shares in excess of the maximum number of shares permitted to be issued thereunder without breaching the Company's obligations under the rules or regulations of Nasdaq.

The Series D Conversion Price is subject to adjustment under certain circumstances in accordance with the Series D Certificate of Designation, including the following:

- The conversion price may be proportionately reduced in the event of a subdivision of the Company's common stock into a greater number of shares or proportionately increased in the event of a combination of the Company's common stock into a smaller number of shares.

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- In the event that the Company in any manner issues or sells or enters into any agreement to issue or sell Variable Price Securities (as defined in the Series D Certificate of Designation), which generally includes any common stock, options or convertible securities that are issuable at a price which varies or may vary with the market price of the shares of common stock, including by way of one or more reset(s) to a fixed price, but excluding customary anti-dilution provisions (each of the formulations for such variable price being referred to as, the “Variable Price”), each holder of Series D Preferred Shares will have the right (in its sole discretion) to substitute the Variable Price for the Conversion Price upon conversion of the Series D Preferred Shares. Sales of common stock pursuant to the Company’s At Market Issuance Sales Agreement with B. Riley FBR, Inc. and Oppenheimer & Co., Inc. will be deemed Variable Price Securities with a Variable Price equal to the lowest price per share at which common stock is sold pursuant to that agreement. Under the Series D Certificate of Designation, the term “options” means any rights, warrants or options to subscribe for or purchase shares of common stock or convertible securities, and the term “convertible securities” means any stock or other security (other than options) that is at any time and under any circumstances, directly or indirectly, convertible into, exercisable or exchangeable for, or which otherwise entitles the holder thereof to acquire, any shares of common stock.
- At any time any Series D Preferred Shares remain outstanding, the Company may reduce the then current conversion price to any amount for any period of time deemed appropriate by the Company’s board of directors.
- The Series D Conversion Price or redemption amounts paid by the Company may also be adjusted upon the occurrence of certain triggering events as set forth in the Series D Certificate of Designation and summarized below under “Conversion Upon a Triggering Event” and “Redemption Upon a Triggering Event.”

Conversion Upon a Triggering Event. Subject to the requirements of Nasdaq Listing Rule 5635(d) and the beneficial ownership limitations provided in the Series D Certificate of Designation, in the event of a triggering event (as defined in the Series D Certificate of Designation and summarized below), the holders of Series D Preferred Shares may elect to convert such shares into shares of common stock at a conversion price equal to the lower of the Series D Conversion Price in effect on the Trading Day (as such term is defined in the Series D Certificate of Designation) immediately preceding the delivery of the conversion notice and 85% of the lowest VWAP of the common stock on any of the five consecutive Trading Days ending on the Trading Day immediately prior to delivery of the applicable conversion notice. This conversion right commences on the date of the triggering event and ends on the later of (i) the date the triggering event is cured and (ii) ten Trading Days after the Company delivers notice of the triggering event.

A triggering event (as defined in the Series D Certificate of Designation) includes, without limitation:

- any failure to pay any amounts due to the holders of the Series D Preferred Shares;
- the Company’s failure to timely deliver shares;
- the suspension of the Company’s common stock from trading or failure to be trading or listed on The Nasdaq Global Market, without obtaining a listing on another national securities exchange, for a period of five consecutive Trading Days;
- subject to limited exceptions, the Company’s failure for more than ten consecutive days to keep reserved for issuance 150% of the number of shares of common stock issuable upon conversion of the outstanding Series D Preferred Shares;
- certain bankruptcy events; and
- breaches of certain covenants that are not timely cured, where a cure period is permitted.

Redemption. Commencing on December 1, 2018, and on the sixteenth day and first day of each calendar month thereafter until March 1, 2020, subject to extension in certain circumstances (the “Series D Maturity Date”), the Company will redeem the stated value of Series D Preferred Stock, or \$30,680,000, in thirty-one equal installments of approximately \$989,677 (each bi-monthly amount, a “Series D Installment Amount” and the date of each such payment, a “Series D Installment Date”). The holders will have the ability to defer installment payments, but not beyond the Series D Maturity Date. In addition, during each period commencing on the 11th Trading Day prior to a Series D Installment Date and prior to the immediately subsequent Series D Installment Date, the holders may elect to accelerate the conversion of Series D Preferred Shares at then applicable installment conversion price, provided that the holders may not elect to effect any such acceleration during such installment period if either (a) in the aggregate, all the accelerations in such installment period exceed the sum of three other Series D Installment Amounts, or (b) the number of Series D Preferred Shares subject to prior accelerations exceeds in the aggregate twelve Series D Installment Amounts.

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Subject to the requirements of Nasdaq Listing Rule 5635(d) and certain beneficial ownership limitations, the Company may elect to pay the Series D Installment Amounts in cash or shares of common stock or in a combination of cash and shares of common stock, except that the Company's right to make payment in shares of common stock, or an installment conversion, is dependent upon satisfying certain equity conditions set forth in the Series D Certificate of Designation. The failure to satisfy such equity conditions is referred to herein as an equity conditions failure. Among other things, these equity conditions include the Company's continued listing on The Nasdaq Global Market or another permitted exchange, the Company reserving 150% of the number of shares of common stock necessary to effect the conversion of the Series D Preferred Shares that then remain outstanding (without regard to any limitations on conversions, such as limitations imposed by Nasdaq Listing Rule 5635(d) or the beneficial ownership limitations) during the applicable measurement period, and the Company's common stock maintaining certain minimum average prices and trading volumes during the applicable measurement period. Upon an equity conditions failure, a holder of Series D Preferred Shares may waive such failure (subject to certain exceptions) and receive the Series D Installment Amount in shares of our common stock based on the installment conversion price (calculated as described in the following paragraph). Alternatively, a holder of Series D Preferred Shares may elect to receive all or part of the Series D Installment Amount due in cash, which shall include an 8 % premium to the Series D Installment Amount.

Series D Installment Amounts paid in shares will be that number of shares of common stock equal to (a) the applicable Series D Installment Amount, to be paid in common stock divided by (b) the lesser of (i) the then existing conversion price, (ii) 87.5% of the volume weighted average price ("VWAP") of the common stock on the Trading Day immediately prior to the applicable Series D Installment Date, and (iii) 87.5% of the arithmetic average of the two lowest VWAPs of the common stock during the ten consecutive Trading Day period ending and including the Trading Day immediately prior to the applicable Series D Installment Date as applicable, provided that the Company meets standard equity conditions. The Company shall make such election no later than the eleventh Trading Day immediately prior to the applicable Series D Installment Date.

If the Company elects or is required to pay a Series D Installment Amount in whole or in part in cash, the amount paid will be equal to 108% of the applicable Series D Installment Amount.

Redemption Upon a Triggering Event. In the event of a triggering event (as defined in the Series D Certificate of Designation and summarized above), the holders of Series D Preferred Shares may require the Company to redeem such Series D Preferred Shares in cash at a price equal to the greater of (a) 125% of the stated value of the Series D Preferred Shares being redeemed plus accrued dividends, if any, and (b) the market value of the number of shares issuable on conversion of the Series D Preferred Shares, valued at the greatest closing sales price during the period from the date immediately before the triggering event through the date the Company makes the redemption payment.

Redemption Upon a Change of Control. In the event of a change of control, as defined in the Series D Certificate of Designation, the holders of Series D Preferred Shares can force redemption at a price equal to the greater of (a) the conversion amount to be redeemed multiplied by 125%, (b) the product of (i) the conversion amount being redeemed multiplied by (ii) the quotient determined by dividing (A) the greatest closing sale price of the common stock on any Trading Day during the period commencing immediately preceding the earlier to occur of (1) the consummation of the applicable change of control and (2) the public announcement of such change of control and ending on the date such holder delivers the change of control redemption notice, by (B) the conversion price then in effect and (c) the product of (i) the conversion amount being redeemed multiplied by (ii) the quotient determined by dividing (A) the aggregate value of the cash and non-cash consideration per share of common stock being paid to holders of common stock in the change of control transaction by (B) the conversion price then in effect. Redemptions of the Series D Preferred Shares required under the Series D Certificate of Designation in connection with a change of control will have priority over payments to all other stockholders of the Company in connection with such change of control.

Dividends. Each holder of Series D Preferred Shares shall be entitled to receive dividends (a) if no triggering event, as defined in the Series D Certificate of Designation, has occurred and is continuing when and as declared by the Company's board of directors, in its sole and absolute discretion or (b) if a triggering event has occurred and until such triggering event has been cured, a dividend of 15% per annum based on the holder's outstanding number of Series D Preferred Shares multiplied by the stated value. The holders of Series D Preferred Shares also have the right to participate in any dividend or other distribution made to holders of common stock to the same extent as if they had converted their Series D Preferred Shares.

Liquidation Preference. In the event of the liquidation, dissolution, or winding up of the Company, prior to distribution to holders of securities ranking junior to the Series D Preferred Stock, holders of Series D Preferred Shares will be entitled to receive the amount of cash, securities or other property equal to the greater of (a) the stated value thereof on the date of such payment plus accrued dividends,

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if any and (b) the amount per share such holder would receive if such holder converted such Series D Preferred Shares into common stock immediately prior to the date of such payment.

Ranking. Shares of Series D Preferred Stock rank with respect to dividend rights and rights upon the liquidation, winding up or dissolution of the Company:

- senior to shares of the Company's common stock;
- junior to the Company's debt obligations;
- junior to the Company's outstanding Series B Preferred Stock;
- pari passu to the Company's outstanding Series C Preferred Stock; and
- effectively junior to the Company's subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

Limited Voting Rights. The holders of Series D Preferred Shares have no voting rights, except as required by law; provided, however, that any amendment to the Company's certificate of incorporation or bylaws or the Series D Certificate of Designation that adversely affects the powers, preferences and rights of the Series D Preferred Stock requires the approval of the holders of a majority of the Series D Preferred Shares then outstanding.

Participation Rights. Until August 29, 2019, the holders of the Series D Preferred Shares have the right to receive notice of and to participate in any offering, issuance or sale of equity or equity-equivalent securities by the Company or its subsidiaries, other than issuances under certain employee benefit plans, upon the conversion of certain options or other convertible securities, or pursuant to certain acquisitions or strategic transactions. Pursuant to such participation rights, the Company must offer to issue and sell to such holders at least 35% of the offered securities.

Nasdaq Marketplace Rule 5635(d). Pursuant to the requirements of Nasdaq Listing Rule 5635(d), the Series D Preferred Shares may not be converted or redeemed by payment of shares of the Company's common stock if such conversion or redemption would cause the Company to issue a number of shares equal to 20% or more of the Company's outstanding voting stock prior to the issuance of the Series D Preferred Shares, until the Company's stockholders approve such issuance. The Company has filed a proxy statement with the SEC for the purpose of having the Company's stockholders vote on a proposal to approve such issuances.

Refer to Note 17, "Subsequent Events" for information regarding certain waivers granted to the Company by the holder of Series D Preferred Stock and other information regarding the treatment of the Series D Preferred Stock.

Series C Preferred Stock

The Company issued an aggregate of 33,500 shares of its Series C Convertible Preferred Stock ("Series C Preferred Stock" and such shares, the "Series C Preferred Shares"), \$0.01 par value and \$1,000 stated value per share, during the fiscal year ended October 31, 2017. As of January 31, 2019 and October 31, 2018, there were 6,917 and 8,992 shares, respectively, of Series C Preferred Stock issued and outstanding with a carrying value of \$7.5 million for each period.

During the three months ended January 31, 2019, holders of the Series C Preferred Stock converted 2,075 Series C Preferred Shares into shares of common stock through installment conversions resulting in a reduction of \$2.0 million to the carrying value being recorded to equity. In order to resolve different interpretations of the provisions of the Certificate of Designations, Preferences and Rights of the Series C Preferred Stock of the Company (the "Series C Certificate of Designations") that govern adjustments to the conversion price in connection with sales of common stock under the Company's at-the-market stock sales plan below the initial conversion price and whether such sales constitute sales of variable priced securities under the Series C Certificate of Designations, the Company's board of directors agreed to reduce the conversion price of the Series C Preferred Shares from \$1.84 to \$1.50 effective August 27, 2018 in exchange for a waiver of certain anti-dilution and price adjustment rights under the Series C Certificate of Designations for future at-the-market sales of common stock. The conversion price of the Series C Preferred Shares was adjusted again on December 3, 2018 to \$0.58, on December 17, 2018 to \$0.50 and on January 2, 2019 to \$0.43. Installment conversions occurring during the three months ended January 31, 2019 in which the installment conversion price was below the adjusted conversion prices of \$1.50 per share, \$0.58 per share, \$0.50 per share or \$0.43 per share (as in effect on applicable installment conversion dates) resulted in a variable number of shares being issued to settle the installment amount and were treated as a partial redemption of the Series C Preferred Shares. Installment conversions during the three months ended January 31, 2019 that were settled in a variable number of shares and treated as partial

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redemptions resulted in deemed dividends of \$0.5 million. The deemed dividends represent the difference between the fair value of the common shares issued to settle the installment amounts and the carrying value of the Series C Preferred Shares.

Based on review of pertinent accounting literature including Accounting Standards Codification (“ASC”) 470 – *Debt*, ASC 480 – *Distinguishing Liabilities from Equity* and ASC 815 – *Derivative and Hedging*, the Series C Preferred Shares are classified outside of permanent equity on the Consolidated Balance Sheets and were recorded at fair value on the issuance date (proceeds from the issuance, net of direct issuance cost). The decline in the Company’s stock price during the three months ended January 31, 2019 resulted in equity conditions failures under the Series C Certificate of Designations, which were subsequently (after quarter end) waived by the holder of the Series C Preferred Stock in that certain Waiver Agreement, dated February 21, 2019, between the Company and the holder of Series C Preferred Stock (see Note 17, “Subsequent Events” for additional information). Prior to the execution of such Waiver Agreement, the conversion price was adjusted in December 2018 and January 2019 as described in the paragraph above, such that the conversion price in effect as of January 31, 2019 was \$0.43. This beneficial conversion feature resulted in a \$6.6 million reduction in the Series C Preferred Shares carrying value. Because the equity conditions failures were continuing as of January 31, 2019 (prior to the execution of the Waiver Agreement), the Series C Preferred Shares were adjusted to 108% of stated redemption value as of January 31, 2019 with a corresponding charge to common shareholders of \$8.6 million.

Under the Waiver Agreement (executed after quarter end), the Company was deemed to have reduced the conversion price of the Series C Preferred Shares converted between the time of the equity conditions failures and the date of the Waiver Agreement as necessary to cause the number of shares of common stock delivered upon such conversions to equal the number of shares issuable upon conversion at such times.

A summary of certain terms of the Series C Preferred Stock, as in effect as of January 31, 2019, follows. (Please see Note 17, “Subsequent Events” for information regarding certain waivers granted to the Company by the holder of Series C Preferred Stock, related conversion price adjustments, and other information regarding the treatment of the Series C Preferred Stock after February 21, 2019.)

Conversion Rights. As of January 31, 2019, the Series C Preferred Shares were convertible into shares of common stock subject to the beneficial ownership limitations provided in the Series C Certificate of Designations, at a conversion price equal to \$0.43 per share. The conversion price is subject to further adjustment as provided in the Series C Certificate of Designations, including adjustments if the Company sells shares of common stock or equity securities convertible into or exercisable for shares of common stock, at variable prices below the conversion price then in effect. In the event of a triggering event, as defined in the Series C Certificate of Designations, the Series C Preferred Shares are convertible into shares of common stock at a conversion price equal to the lower of the conversion price then in effect and 85% of the lowest VWAP of the common stock of the five trading days immediately prior to delivery of the applicable conversion notice. The holders will be prohibited from converting Series C Preferred Shares into shares of common stock if, as a result of such conversion, such holder, together with its affiliates, would own more than 8.99% of the total number of shares of common stock then issued and outstanding. Each holder has the right to increase its maximum percentage up to 9.99% upon 60 days’ notice to the Company.

Installment Payments. On November 1, 2017 and on the sixteenth day and first day of each calendar month thereafter until March 1, 2019, subject to extension in certain circumstances (the “Series C Maturity Date”), inclusive, the Company will redeem the stated value of Series C Preferred Shares in thirty-three equal installments of approximately \$1.0 million (each bimonthly amount, a “Series C Installment Amount” and the date of each such payment, a “Series C Installment Date”). The holders will have the ability to defer installment payments, but not beyond the Series C Maturity Date. In addition, during each period commencing on the 11th trading day prior to a Series C Installment Date and prior to the immediately subsequent Series C Installment Date, the holders may elect to accelerate the conversion of Series C Preferred Shares at the then applicable installment conversion price, provided that the holders may not elect to effect any such acceleration during such installment period if either (a) in the aggregate, all the accelerations in such installment period exceed the sum of three other Series C Installment Amounts, or (b) the number of Series C Preferred Shares subject to prior accelerations exceeds in the aggregate twelve Series C Installment Amounts.

Subject to certain conditions as provided in the Series C Certificate of Designations, the Company may elect to pay the Series C Installment Amounts in cash or shares of common stock or in a combination of cash and shares of common stock.

Series C Installment Amounts paid in shares will be that number of shares of common stock equal to (a) the applicable Series C Installment Amount, to be paid in common stock divided by (b) the least of (i) the then existing conversion price, (ii) 87.5% of the VWAP of the common stock on the trading day immediately prior to the applicable Series C Installment Date, and (iii) 87.5% of the arithmetic average of the two lowest VWAPs of the common stock during the ten consecutive trading day period ending and including

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the trading day immediately prior to the applicable Series C Installment Date as applicable, provided that the Company meets standard equity conditions. The Company shall make such election no later than the eleventh trading day immediately prior to the applicable Series C Installment Date.

If the Company elects or is required to pay a Series C Installment Amount in whole or in part in cash, the amount paid will be equal to 108% of the applicable Series C Installment Amount.

Dividends. Each holder of the Series C Preferred Shares shall be entitled to receive dividends (a) if no triggering event, as defined in the Series C Certificate of Designations, has occurred and is continuing when and as declared by the Company's board of directors, in its sole and absolute discretion or (b) if a triggering event has occurred and until such triggering event has been cured, a dividend of 15% per annum based on the holder's outstanding number of Series C Preferred Shares multiplied by the stated value. There were no triggering events or dividends declared in fiscal year 2017, fiscal year 2018 or during the three months ended January 31, 2019.

Redemption. In the event of a triggering event, as defined in the Series C Certificate of Designations, the holders of the Series C Preferred Shares can force redemption at a price equal to the greater of (a) the conversion amount to be redeemed multiplied by 125% and (b) the product of (i) the conversion rate with respect to the conversion amount in effect at such time as such holder delivers a triggering event redemption notice multiplied by (ii) the greatest closing sale price of the common stock on any trading day during the period commencing on the date immediately preceding such triggering event and ending on the date the Company makes the entire payment required.

Liquidation. In the event of the Company's liquidation, dissolution, or winding up, prior to distribution to holders of securities ranking junior to the Series C Preferred Shares, holders of Series C Preferred Shares will be entitled to receive the amount of cash, securities or other property equal to the greater of (a) the stated value thereof on the date of such payment plus accrued dividends, if any and (b) the amount per share such holder would receive if such holder converted such Series C Preferred Shares into common stock immediately prior to the date of such payment.

Ranking and Voting Rights. Shares of Series C Preferred Stock rank with respect to dividend rights and rights upon the Company's liquidation, winding up or dissolution:

- senior to shares of the Company's common stock;
- junior to the Company's debt obligations;
- junior to the Company's outstanding Series B Preferred Stock;
- pari passu to the Company's outstanding Series D Preferred Stock (which was issued on August 29, 2018); and
- effectively junior to the Company's subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

The holders of the Series C Preferred Shares have no voting rights, except as required by law, provided, however, that any amendment to the Company's certificate of incorporation or bylaws or the Series C Certificate of Designations that adversely affects the powers, preferences and rights of the Series C Preferred Shares requires the approval of the holders of a majority of the Series C Preferred Shares then outstanding.

Refer to Note 17, "Subsequent Events" for information regarding certain waivers granted to the Company by the holder of Series C Preferred Stock, related conversion price adjustments, and other information regarding the treatment of the Series C Preferred Stock.

Redeemable Series B Preferred Stock

As of January 31, 2019, the Company had 105,875 shares of 5% Series B Cumulative Convertible Perpetual Preferred Stock (Liquidation Preference \$1,000.00 per share) ("Series B Preferred Stock") authorized for issuance. As of January 31, 2019 and October 31, 2018, there were 64,020 shares of Series B Preferred Stock issued and outstanding, with a carrying value of \$59.9 million. Dividends of \$0.8 million were paid in cash for each of the three month periods ended January 31, 2019 and 2018, respectively.

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Class A Cumulative Redeemable Exchangeable Preferred Shares

As of January 31, 2019, FCE FuelCell Energy Ltd. had 1,000,000 Class A Cumulative Redeemable Exchangeable Preferred Shares (the “Series 1 Preferred Shares”) issued and outstanding, which are held by Enbridge, Inc. (“Enbridge”), which is a related party. The Company made its scheduled payments of Cdn. \$0.3 million during each of the three month periods ended January 31, 2019 and 2018 under the terms of the Company’s agreement with Enbridge. The Company also recorded interest expense, which reflects the amortization of the fair value discount of approximately Cdn. \$0.7 million for the three months ended January 31, 2019 and 2018. As of January 31, 2019 and October 31, 2018, the carrying value of the Series 1 Preferred Shares was Cdn. \$21.3 million (U.S. \$16.2 million) and Cdn. \$20.9 million (U.S. \$15.9 million), respectively, and is classified as a preferred stock obligation of subsidiary on the Consolidated Balance Sheets.

Note 12. Loss Per Share

The calculation of basic and diluted loss per share was as follows:

	Three Months Ended January 31,	
	2019	2018
Numerator		
Net loss	\$ (17,548)	\$ (4,183)
Series B preferred stock dividends	\$ (800)	\$ (800)
Series C preferred stock deemed dividends and redemption value adjustment	(9,005)	(3,463)
Series D Preferred stock deemed dividends and redemption accretion	(5,685)	—
Net loss attributable to common stockholders	<u>\$ (33,038)</u>	<u>\$ (8,446)</u>
Denominator		
Weighted average basic common shares	99,860,421	72,024,811
Effect of dilutive securities (1)	—	—
Weighted average diluted common shares	<u>99,860,421</u>	<u>72,024,811</u>
Basic loss per share	<u>\$ (0.33)</u>	<u>\$ (0.12)</u>
Diluted loss per share (1)	<u>\$ (0.33)</u>	<u>\$ (0.12)</u>

- (1) Due to the net loss to common stockholders in each of the periods presented above, diluted loss per share was computed without consideration to potentially dilutive instruments as their inclusion would have been antidilutive. As of January 31, 2019 and 2018, potentially dilutive securities excluded from the diluted loss per share calculation are as follows:

	January 31, 2019	January 31, 2018
May 2017 Offering - Series C Warrants	11,569,364	11,573,364
May 2017 Offering - Series D Warrants	—	525,308
July 2016 Offering - Series A Warrants	7,680,000	7,680,000
Outstanding options to purchase common stock	323,486	281,175
Unvested Restricted Stock Awards	1,100,591	1,789,581
Unvested Restricted Stock Units	3,400,922	1,185,001
Series C Preferred Shares to satisfy conversion requirements (1)	17,211,968	13,512,717
Series D Preferred Shares to satisfy conversion requirements (2)	18,424,965	—
5% Series B Cumulative Convertible Preferred Stock	454,043	454,043
Series 1 Preferred Shares to satisfy conversion requirements	15,168	15,166
Total potentially dilutive securities	<u>60,180,507</u>	<u>37,016,355</u>

- (1) The number of shares of common stock issuable upon conversion of the Series C Preferred Stock was calculated using the liquidation preference value outstanding on January 31, 2019 of \$7.5 million divided by the reduced conversion price of \$0.43 and the liquidation preference of \$24.2 million divided by the conversion price of \$1.84 as of January 31, 2018. The actual number of shares issued could vary depending on the actual market price of the Company’s common shares on the date of such conversions.

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- (2) The number of shares of common stock issuable upon conversion of the Series D Preferred Stock was calculated using the liquidation preference value outstanding on January 31, 2019 of \$25.4 million divided by the conversion price of \$1.38. The actual number of shares issued could vary depending on the actual market price of the Company's common shares on the date of such conversions.

Note 13. Restricted Cash

As of January 31, 2019 and October 31, 2018, there was \$40.5 million and \$40.9 million, respectively, of restricted cash and cash equivalents pledged as collateral for letters of credit for certain banking requirements and contractual commitments. The restricted cash balance for both periods presented includes \$15.0 million which has been placed in a Grantor's Trust account to secure certain obligations under a 15-year service agreement and has been classified as long-term. The restricted cash balance as of January 31, 2019 and October 31, 2018 also includes \$17.4 million and \$17.7 million, respectively, to support obligations related to PNC sale-leaseback transactions. As of January 31, 2019 and October 31, 2018, outstanding letters of credit totaled \$2.6 million and \$3.8 million, respectively. These expire on various dates through August 2025.

Note 14. Debt and Financing Obligation

Debt as of January 31, 2019 and October 31, 2018 consisted of the following:

	January 31, 2019	October 31, 2018
Connecticut Development Authority Note	\$ —	\$ 284
Connecticut Green Bank Note	6,052	6,052
Finance obligation for sale-leaseback transactions	45,696	46,062
State of Connecticut Loan	10,000	10,000
Hercules Loan and Security Agreement	25,488	25,343
New Britain Renewable Energy Term Loan	959	1,107
NRG Loan Facility	5,750	—
Generate Lending Construction Loan	10,000	—
Enhanced Capital Loan and Security Agreement	1,500	—
Capitalized lease obligations	337	341
Deferred finance costs	(1,407)	(1,311)
Total debt	\$ 104,375	\$ 87,878
Current portion of long-term debt and financing obligation	(38,869)	(17,596)
Long-term debt	\$ 65,506	\$ 70,282

The Company has a long-term loan agreement with the Clean Energy Finance and Investment Authority, now known as the Connecticut Green Bank, providing a total of \$5.9 million in support of the Bridgeport Fuel Cell Park project. The loan agreement carries an interest rate of 5.0 percent per annum. Interest only payments commenced in January 2014 and principal payments will commence on the eighth anniversary of the project's provisional acceptance date, which is December 20, 2021, payable in forty-eight equal monthly installments. Outstanding amounts are secured by future cash flows from the Bridgeport Fuel Cell Park service agreement.

In 2015, the Company entered into the first of a series of agreements with PNC, whereby the Company's project finance subsidiaries entered into sale-leaseback agreements for commissioned projects where the Company had entered into a PPA with the site host/end-user of produced power. Under the financing method of accounting for a sale-leaseback, the Company does not recognize as income any of the sale proceeds received from the lessor that contractually constitute payments to acquire the assets subject to these arrangements. Instead, the sale proceeds received are accounted for as financing obligations. The outstanding financing obligation balance as of January 31, 2019 was \$45.7 million and the decrease from \$46.1 million on October 31, 2018 includes lease payments offset by the recognition of interest expense. The outstanding financing obligation includes an embedded gain which will be recognized at the end of the lease term.

In November 2015, the Company entered into a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10.0 million, which was used for the first phase of the expansion of the Company's Torrington, Connecticut manufacturing facility. In conjunction with this financing, the Company entered into a \$10.0 million promissory note and related

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security agreements securing the loan with equipment liens and a mortgage on its Danbury, Connecticut location. Under the Agreement, the Company was eligible for forgiveness of up to 50 percent of the loan principal if the Company created 165 full-time positions and retained 538 full-time positions for two consecutive years (the “Employment Obligation”) as measured on October 28, 2017 (the “Target Date”). The Agreement was subsequently amended in April 2017 to extend the Target Date by two years to October 28, 2019.

In January 2019, the Company and the State of Connecticut entered into a Second Amendment to the Assistance Agreement (the “Second Amendment”). The Second Amendment extends the Target Date to October 31, 2022 and amends the Employment Obligation to require the Company to maintain 538 full-time positions for 24 consecutive months. If the Company meets the Employment Obligation, as modified by the Second Amendment, and creates an additional 91 full-time positions, the Company may receive a credit in the amount of \$2.0 million to be applied against the outstanding balance of the loan. The Second Amendment deletes and cancels the provisions of the Agreement related to the second phase of the expansion project and the loans related thereto, but the Company had not drawn any funds or received any disbursements under those provisions.

In April 2016, the Company entered into a loan and security agreement (the “Hercules Agreement”) with Hercules Capital, Inc. (“Hercules”) for an aggregate principal amount of up to \$25.0 million, subject to certain terms and conditions, of which the Company drew down \$20.0 million during fiscal year 2016. The loan was a 30 month secured facility. The term loan interest rate was 9.75 percent per annum as of October 31, 2017 and increased to 10.0 percent per annum as of January 31, 2018 as a result of the increase in the prime rate. In addition to interest, which is paid on a monthly basis, principal payments commenced on November 1, 2017 in equal monthly installments. The loan balance and all accrued and unpaid interest was due and payable by October 1, 2018. Under the terms of the Hercules Agreement, there was an end of term charge of \$1.7 million due on October 31, 2018, which was being accreted over the 30-month term using the effective interest rate method.

The Hercules Agreement was subsequently amended on September 5, 2017, October 27, 2017, March 28, 2018, August 29, 2018 and December 19, 2018. The March 28, 2018 amendment (the “March Amendment”) allowed the Company to draw a term loan advance of \$13.1 million and extended the maturity date. The aggregate amount outstanding as of January 31, 2019, which includes the amount outstanding under the original Hercules Agreement of \$11.9 million and the term loan advance under the March Amendment, was \$25.0 million. The term loan maturity date is April 1, 2020. Payments for the aggregate amount outstanding are interest-only for the initial 12-month period, followed by equal monthly installments of principal and interest until the term loan maturity date. The term loan interest rate was 10.15% per annum and increased to 10.40% per annum in June 2018, 10.65% per annum in September 2018 and 10.90% per annum in December 2018 as a result of increases in the prime rate. The term loan interest rate is the greater of either (i) 9.90% plus the prime rate minus 4.50%, and (ii) 9.90%. The initial end of term charge of \$1.7 million was paid on October 1, 2018. An additional end of term charge of \$0.9 million will be due on April 1, 2020, subject to extension upon the Company’s achievement of certain performance milestones. The additional end of term charge is being accreted over a 30-month term.

On August 29, 2018, in connection with the issuance of the Series D Preferred Stock, the Company and Hercules (and various affiliated entities) entered into the fourth amendment to the Hercules Agreement to (i) modify the definition of “Permitted Indebtedness” to include certain redemption and/or conversion rights as set forth in the Series D Certificate of Designation, (ii) permit the Company, so long as no event of default has occurred and is continuing, to repurchase or redeem stock in cash pursuant to the redemption and/or conversion rights set forth in the Series D Certificate of Designation; provided that, the Company must make any such repurchase, redemption or payment in common stock and not in cash or other consideration unless prohibited pursuant to the terms of the Series D Certificate of Designation or otherwise prohibited by applicable law, (iii) permit the Company, so long as no event of default has occurred and is continuing, to pay cash dividends under the Series D Preferred Shares as required in the Series D Certificate of Designation; provided that, the Company must pay such dividends in common stock and not in cash or other consideration unless prohibited pursuant to the terms of the Series D Certificate of Designation or otherwise prohibited by applicable law, and (iv) add a new event of default, which occurs upon the delivery of a Triggering Event Redemption Notice (as defined under the Series D Certificate of Designation) under the Series D Certificate of Designation.

As collateral for obligations under the Hercules Agreement, the Company granted Hercules a security interest in FuelCell Energy, Inc.’s existing and thereafter-acquired assets except for intellectual property and certain other excluded assets. The collateral does not include assets held by FuelCell Energy Finance, LLC (“FuelCell Finance”) or any project subsidiary thereof. The Company may continue to collateralize and finance its project subsidiaries through other lenders and partners. As of January 31, 2019, the Hercules Agreement, as amended, included a minimum cash covenant requiring the Company to maintain an unrestricted cash balance in accounts subject to an account control agreement in favor of Hercules of at least the greater of (a) 75% of the outstanding loan balance plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date. (See Note 17, “Subsequent Events” for a discussion of a further amendment to the Hercules Agreement and the minimum cash covenant.) The Hercules Agreement, as amended,

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contains customary representations and warranties, affirmative and negative covenants, and events of default that entitle Hercules to cause the indebtedness under the agreement to become immediately due and payable.

In November 2016, the Company assumed debt with Webster Bank in the amount of \$2.3 million as a part of an asset acquisition transaction. The term loan interest rate is 5.0 percent per annum and payments, which commenced in January 2017, are due on a quarterly basis. The balance outstanding as of January 31, 2019 and October 31, 2018 was \$1.0 million and \$1.1 million, respectively.

In July 2014, the Company, through its wholly-owned subsidiary, FuelCell Finance, entered into a Loan Agreement with NRG (the "Loan Agreement"). Pursuant to the Loan Agreement, NRG has extended a \$40.0 million Loan Facility to FuelCell Finance for the purpose of accelerating project development by the Company and its subsidiaries. Under the Loan Agreement, FuelCell Finance and its subsidiaries were permitted to draw on the Loan Facility to finance the construction of projects through the commercial operating date of the power plants. Additionally, FuelCell Finance had the option to continue the financing term for each project after the commercial operating date for a minimum term of five years per project. The interest rate is 8.5 percent per annum for construction-period financing and 8.0 percent per annum thereafter. The Loan Facility expires on the earlier of the commercial operation date or March 31, 2019, therefore, any draws under the facility would be considered short-term debt.

On December 13, 2018, FuelCell Finance's wholly owned subsidiary, Central CA Fuel Cell 2, LLC, drew a construction loan advance of \$5.8 million under the Loan Facility. This advance will be used to support the completion of construction of the 2.8 MW Tulare BioMAT project in California. This plant is expected to meet its commercial operations date in March 2019. In conjunction with the December 13, 2018 draw, FuelCell Finance and NRG entered into an amendment to the NRG Agreement (the "Amendment") to revise the definitions of the terms "Maturity Date" and "Project Draw Period" under the NRG Agreement and to make other related revisions. Pursuant to the Amendment, FuelCell Finance and its subsidiaries could only request draws through December 31, 2018 and the Maturity Date of each draw is the earlier of (a) March 31, 2019 and (b) the commercial operation date or substantial completion date, as applicable, with respect to the fuel cell project owned by the borrower under such note. There are currently no other drawdowns or outstanding balances under the Loan Facility.

On December 21, 2018, the Company, through its indirect wholly-owned subsidiary FuelCell Energy Finance II, LLC ("FCEF II" or "Borrower"), entered into a Construction Loan Agreement (the "Agreement") with Generate Lending, LLC ("Lender" or "Generate Lending") pursuant to which Generate Lending agreed (the "Commitment") to make available to FCEF II a credit facility in an aggregate principal amount of up to \$100.0 million and, subject to further Lender approval and available capital, up to \$300.0 million if requested by the Company (the "Facility") and approved by Generate Lending to fund the manufacture, construction, installation, commissioning and start-up of stationary fuel cell projects to be developed by the Company on behalf of Borrower during the Availability Period (as defined below and in the Agreement). Fuel cell projects must meet certain conditions to be determined to be "Approved Projects" under the Facility. The Facility will be comprised of multiple loans to individual Approved Projects (each, a "Working Capital Loan"). Each Working Capital Loan will be sized to the lesser of (i) 100% of the construction budget and (ii) the invested amount that allows Lender to achieve a 10% unlevered, after-tax inefficient internal rate of return. Approved Projects will be funded at milestones on a cost incurred basis. FCEF II and the Company will contribute any additional equity required to construct an Approved Project on a pari-passu basis with the Working Capital Loans. The Commitment to provide Working Capital Loans will remain in place for thirty-six months from the date of the Agreement (the "Availability Period"). Interest will accrue at 9.5% per annum, calculated on a 30/360 basis, on all outstanding principal, paid on the first business day of each month. The initial draw amount under this facility, funded at closing, was \$10.0 million.

The maturity date for the outstanding principal amount of each Working Capital Loan will be the earlier of (a) the achievement of the Commercial Operation Date under the Engineering, Procurement and Construction ("EPC") Agreement for such Approved Project, (b) ninety days prior to the required Commercial Operation Date under the Revenue Contract (as defined in the Agreement), or (c) upon certain defaults by Borrower. The Lender has the right to issue a notice to the Borrower that the Commitment, and that all Working Capital Loans shall be due and payable on September 30, 2019; provided that such notice shall be issued by the Lender, if at all, during the ten (10) day period beginning on June 20, 2019 and ending on (and including) June 30, 2019. If the Lender delivers such notice, all of the Working Capital Loans, together with all accrued and unpaid interest thereon, shall be due and payable in its entirety, without penalty or premium. If the Lender delivers such notice, the Borrower may prepay all then outstanding Working Capital Loans at any time prior to September 30, 2019. Mandatory prepayments are required in the event of (i) material damage or destruction to an Approved Project, (ii) termination or default under an Approved Project's Revenue Contract, (iii) a change of control, or (iv) failure to achieve Substantial Completion as defined under the EPC Agreement for such Approved Project by the required dates.

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(Unaudited)

(Tabular amounts in thousands, except share and per share amounts)

Provided that the Approved Project has been completed as of the maturity date and no defaults exist with respect to the Working Capital Loans for such Approved Project, FCEF II, as determined in its sole discretion, will have a 90-day period to either sell the Approved Project or effect a refinancing, in either case proceeds of which will be used to repay the Working Capital Loan for the Approved Project. In the case of a disposition of the Approved Project, Lender will be entitled to a "Disposition Fee," as described below. In the case where the Working Capital Loan for the Project is refinanced, Lender will have the right to make an equity investment in the Approved Project on terms such that Lender derives an after-tax yield of no less than a 12% internal rate of return on an investment of greater than 10% of the total purchase price. Borrower and Lender will enter into an arrangement to share any returns realized in excess of the foregoing target return. In the event that Borrower does not sell or refinance an Approved Project within ninety days following the Working Capital Loan maturity date (or such other date as may be mutually agreed), then the outstanding balance of the Working Capital Loan on such Approved Project shall convert into a 100% equity ownership of the applicable project company owning such Approved Project through execution of a Membership Interest Purchase Agreement ("MIPA") with the Lender. At that time, the Lender will own the project and Borrower will not have any repayment obligations. Included in the applicable MIPA for each Approved Project subject to this provision will be a conditional purchase price adjustment for Borrower equal to 50% of any distributions to Lender after Lender has achieved a 10% inefficient after-tax, unlevered internal rate of return. In the event that Borrower and Lender are unable to come to terms on a MIPA for any Approved Project, the Working Capital Loan for such Approved Project will be required to be repaid in full without penalty or premium.

Borrower will pay a draw down fee equal to 3% of the amount of each Working Capital Loan and certain other diligence and administration fees. Upon the sale of any Approved Project to a third party, Lender will be entitled to a disposition fee equal to 3% of the total sale price ("Disposition Fee"). At such time as Lender has made Working Capital Loans in the aggregate amount of greater than \$100,000,000 but less than \$200,000,000, the Disposition Fee is reduced to 2% and in the aggregate amount of greater than \$200,000,000 but less than \$300,000,000, the Disposition Fee is reduced to 1%.

The initial draw amount under this Facility, funded at closing, was \$10.0 million. The initial draw reflects loan advances for the first Approved Project under the Facility, the Bolthouse Farms 5 MW project in California. Additional drawdowns are expected to take place as the Company completes certain project milestones. The Company expects to use this Facility to fund the construction of its backlog, including the three LIPA projects totaling 39.8 MW and the two projects awarded pursuant to the Connecticut DEEP RFP, totaling 22.2 MW.

On January 9, 2019, the Company, through its indirect wholly-owned subsidiary TRS Fuel Cell, LLC, entered into a Loan and Security Agreement (the "Enhanced Capital Loan Agreement") with Enhanced Capital Connecticut Fund V, LLC in the amount of \$1.5 million. Interest will accrue at a rate of 6.0% per annum, calculated on a 30/360 basis, on all outstanding principal, paid on the first business day of each month. The loan maturity date is three years from the date of the Enhanced Capital Loan Agreement upon which the outstanding principal and accrued interest will be payable.

The Company leases computer equipment under master lease agreements. Lease payment terms are generally thirty-six months from the date of acceptance for leased equipment.

Deferred finance costs relate primarily to sale-leaseback transactions entered into with PNC which are being amortized over the ten-year term and direct deferred finance costs relating to the Hercules Agreement, as amended, is being amortized over the 30-month life of the loan.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

Note 15. Income Taxes

The Company recorded an income tax benefit totaling \$3.0 million for the three months ended January 31, 2018. There was no income tax expense recorded for the three months ended January 31, 2019. The income tax benefit for the three months ended January 31, 2018 primarily related to the Tax Cuts and Jobs Act (the “Act”) that was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate from 34% to 21% effective January 1, 2018 which resulted in a deferred tax benefit of \$1.0 million primarily related to a reduction of the Company’s deferred tax liability for in process research and development (“IPR&D”). The Act also established an unlimited carryforward period for the net operating loss (“NOL”) the Company generated in fiscal year 2018. This provision of the Act resulted in a reduction of the valuation allowance attributable to deferred tax assets at the enactment date by \$2.0 million based on the indefinite life of the resulting NOL as well as the deferred tax liability for IPR&D.

Note 16. Commitments and Contingencies

Lease Agreements

As of January 31, 2019 and October 31, 2018, the Company had equipment financing and capital lease obligations of \$0.3 million. Payment terms are generally thirty-six months from the date of acceptance for leased equipment.

The Company also leases certain computer and office equipment and manufacturing facilities in Torrington and Danbury, Connecticut under operating leases expiring on various dates through 2030.

Non-cancelable minimum payments applicable to operating and capital leases as of January 31, 2019 were as follows:

	<u>Operating Leases</u>	<u>Capital Leases</u>
Due Year 1	\$ 811	\$ 207
Due Year 2	464	87
Due Year 3	384	21
Due Year 4	377	3
Due Year 5	374	—
Thereafter	2,910	—
Total	<u>\$ 5,320</u>	<u>\$ 318</u>

Service Agreements

Under the provisions of its service agreements, the Company provides services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Under the terms of such service agreements, the particular power plant must meet a minimum operating output during defined periods of the term. If minimum output falls below the contract requirement, the Company may be subject to performance penalties and/or may be required to repair or replace the customer’s fuel cell module(s). Prior to the implementation of the new revenue recognition standard, an estimate for a performance guarantee was not recorded until a performance issue occurred at a particular power plant. At that point, the actual power plant’s output was compared against the minimum output guarantee and an accrual was recorded. The review of power plant performance was updated for each reporting period to incorporate the most recent performance of the power plant and minimum output guarantee payments made to customers, if applicable. Under the new revenue recognition standard, performance guarantees are considered variable consideration and as such, an estimate of future performance obligations is calculated for each service agreement based on past payment history and is included as an offset to the service agreement consideration. The Company has previously provided for an accrual for performance guarantees, based on actual fleet performance, which totaled \$1.1 million as of October 31, 2018, and was recorded in “Accrued liabilities.” Under Topic 606, the liability recorded as of January 31, 2019 is \$2.2 million.

The Company’s loss accrual on service agreements totaled \$2.3 million and \$0.9 million as of January 31, 2019 and October 31, 2018, respectively, and is recorded in “Accrued liabilities.” The Company’s loss accrual estimates are performed on a contract by contract basis and include cost assumptions based on what the Company anticipates the service requirements will be to fulfill obligations under each contract. The increase of \$1.4 million is due to the implementation of Topic 606.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

Power Purchase Agreements

Under the terms of the Company's PPAs, customers agree to purchase power from the Company's fuel cell power plants at negotiated rates. Electricity rates are generally a function of the customers' current and estimated future electricity pricing available from the grid. As owner or lessee of the power plants, the Company is responsible for all operating costs necessary to maintain, monitor and repair the power plants. Under certain agreements, the Company is also responsible for procuring fuel, generally natural gas or biogas, to run the power plants.

Other

As of January 31, 2019, the Company had unconditional purchase commitments aggregating \$54.4 million, for materials, supplies and services in the normal course of business.

Under certain sales and financing agreements, the Company is contractually committed to provide compensation for any losses that its customers and finance partners may suffer in certain limited circumstances resulting from reductions in realization of the U.S. Investment Tax Credit. Such obligations would arise as a result of reductions to the value of the underlying fuel cell projects as assessed by the U.S. Internal Revenue Service (the "IRS"). The Company does not believe that any payments under these contracts are probable based on the facts known at the reporting date. The maximum potential future payments that the Company could have to make with respect to these obligations would depend on the difference between the fair values of the fuel cell projects sold or financed and the values the IRS would determine as the fair value for the systems for purposes of claiming the Investment Tax Credit. The value of the Investment Tax Credit in the Company's agreements is based on guidelines provided by the regulations from the IRS. The Company and its customers use fair values determined with the assistance of independent third-party appraisals.

The Company is involved in legal proceedings, claims and litigation arising out of the ordinary conduct of its business. Although the Company cannot assure the outcome, management presently believes that the result of such legal proceedings, either individually, or in the aggregate, will not have a material adverse effect on the Company's consolidated financial statements, and no material amounts have been accrued in the Company's consolidated financial statements with respect to these matters.

Note 17. Subsequent Events

Construction Loan Agreement

On February 28, 2019, the Company, through its indirect wholly-owned subsidiary Groton Station Fuel Cell, LLC ("Groton Borrower"), entered into a Construction Loan Agreement (the "Construction Loan Agreement") with Fifth Third Bank ("Fifth Third") pursuant to which Fifth Third agreed to make available to Groton Borrower a construction loan facility in an aggregate principal amount of up to \$23.0 million (the "Groton Facility") to fund the manufacture, construction, installation, commissioning and start-up of the 7.4 megawatt fuel cell power plant for the Connecticut Municipal Electric Energy Cooperative located on the U.S. Navy submarine base in Groton, Connecticut (the "Groton Project"). Groton Borrower made an initial draw under the Groton Facility on the date of closing of \$ 9.6 million.

Amounts borrowed under the Groton Facility bear interest at a rate equal to the sum of the one-month LIBOR Rate plus 2.25 %. Regular monthly payments are interest-only. Amounts borrowed under the Groton Facility may be prepaid at any time without penalty. The maturity date of the Groton Facility will be the earlier of (a) October 31, 2019, (b) the commercial operation date of the Groton Project, or (c) one business day after receipt of proceeds of debt financing (i.e., take out financing) in an amount sufficient to repay the outstanding indebtedness under the Groton Facility. Mandatory prepayments are required in the event of material damage or destruction to the Groton Project or a change of control of Groton Borrower.

The Company has agreed to guarantee Groton Borrower's obligations under the Construction Loan Agreement. In addition, Groton Borrower's obligations under the Construction Loan Agreement are secured by a first mortgage lien on Groton Borrower's leasehold interest in the Groton Project site, a security interest in the Groton Project assets, including material Groton Project related contracts such as the power purchase agreement and EPC agreement, and the Company's equity interest in the Groton Borrower.

The Construction Loan Agreement contains customary representations and warranties, affirmative and negative covenants, and events of default that entitle Fifth Third to cause the indebtedness under the Groton Facility to become immediately due and payable.

FUELCELL ENERGY, INC.
Notes to Consolidated Financial Statements
(Unaudited)
(Tabular amounts in thousands, except share and per share amounts)

Amendment to Hercules Loan and Security Agreement

On February 28, 2019, the Company and Hercules (and various affiliated entities) entered into the sixth amendment to the loan and security agreement (such amendment, the “Hercules Amendment”), which is effective as of February 22, 2019. Under the Hercules Amendment, the Company is required, at all times following February 22, 2019 through March 31, 2019, to maintain an unrestricted cash balance of at least (a) 50% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. Further, at all times after March 31, 2019, the Company is required to maintain an unrestricted cash balance of at least (a) 75% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. In addition, in the event of prepayment, the Hercules Amendment requires the payment of a prepayment charge equal to the following percentage of the advance amount being prepaid: (a) if such advance amounts are prepaid in any of the first twelve months following February 22, 2019, 2.00%, and (b) thereafter, 1.00%. In connection with the execution of the Hercules Amendment, the Company paid a \$250,000 non-refundable fee to Hercules.

Waiver Agreement

On February 21, 2019, the Company entered into a waiver agreement (the “Waiver Agreement”) with the sole remaining holder of the Series C Preferred Stock (such holder, the “Series C Holder”). Under the Waiver Agreement, the Series C Holder waived any equity conditions failures that may have occurred under the Series C Certificate of Designations. The Series C Holder further waived any triggering event occurring after the date of the Waiver Agreement, as well as its right to demand, require or otherwise receive cash payments under the Series C Certificate of Designations, which waiver will terminate upon the occurrence of certain key triggering events, the occurrence of a fundamental transaction, a breach of the Waiver Agreement, or the occurrence of a bankruptcy triggering event. In addition, the Company agreed in the Waiver Agreement, pursuant to Section 8(d) of the Series C Certificate of Designations, to adjust the conversion price of the Series C Preferred Stock in connection with future conversions, such that, when the Series C Holder converts its Series C Preferred Stock into common stock, it will receive approximately 25% more shares than it would have received upon conversion prior to the execution of the Waiver Agreement and the adjustment of the conversion price. Under the Waiver Agreement, conversions of Series C Preferred Stock may occur after the March 1, 2019 maturity date.

Additionally, the Series C Holder acknowledged in the Waiver Agreement that no anti-dilution or other adjustments under the Series C Certificate of Designations will result from the exchange of the Warrant (as defined below) for shares of, or the issuance of shares of, the Company’s common stock pursuant to the Exchange Agreement (as defined below). The Company further agreed to reserve specific numbers of shares for issuance to the Series C Holder and the Series D Holders (as defined below), with such reservations to remain in place until the Company has increased its authorized shares of common stock or effected a reverse stock split. In the event of a reverse stock split, the Company will be required to reserve shares as set forth in the Series C Certificate of Designations (if shares of Series C Preferred Stock are still outstanding) and the Series D Certificate of Designation.

Exchange Agreement

On February 21, 2019, the Company also entered into an Exchange Agreement (the “Exchange Agreement”) with the holder (the “Warrant Holder”) of the Series A Warrant to Purchase Common Stock, issued by the Company on July 12, 2016 (the “Warrant”), which was exercisable for 7,680,000 shares of the Company’s common stock. Pursuant to the Exchange Agreement, the Company has agreed to issue to the Warrant Holder 6,000,000 shares of the Company’s common stock (subject to adjustment for stock dividends, stock splits, stock combinations, and other reclassifications) in exchange for the transfer of the Warrant back to the Company, in reliance on an exemption from registration provided by Section 3(a)(9) of the Securities Act of 1933, as amended. Following the transfer of the Warrant back to the Company, the Warrant shall be cancelled and no further shares shall be issuable pursuant to the Warrant.

Consent and Waiver

On February 21, 2019, the Company entered into a Consent and Waiver with each of the holders of the Series D Preferred Stock (such holders, the “Series D Holders”), pursuant to which the Series D Holders consented to the adjustments to the conversion price of the Series C Preferred Stock set forth in the Waiver Agreement and waived certain anti-dilution rights and conversion price adjustments under the Series D Certificate of Designation that may have resulted from the conversion price adjustments set forth in the Waiver Agreement. The Series D Holders further acknowledged that no anti-dilution or other adjustments under the Series D Certificate of Designation will result from the exchange of the Warrant for shares of, or the issuance of shares of, the Company’s common stock pursuant to the Exchange Agreement.

FUELCELL ENERGY, INC.

Notes to Consolidated Financial Statements

(Unaudited)

(Tabular amounts in thousands, except share and per share amounts)

Additionally, the parties agreed to implement new “pre-notice” procedures in connection with the notices to be given to the Series D Holders of subsequent placements (and their participation rights therein) under the Series D Certificate of Designation, and the Company agreed to reserve specific numbers of shares for issuance to the Series D Holders, with such reservations to remain in place until the Company has increased its authorized shares of common stock or effected a reverse stock split. In the event of a reverse stock split, the Company will be required to reserve shares as set forth in the Series D Certificate of Designation.

FORWARD-LOOKING STATEMENTS

This Quarterly Report on Form 10-Q (including exhibits and any information incorporated by reference herein) contains both historical and forward-looking statements that involve risks, uncertainties and assumptions. The statements contained in this report that are not purely historical are forward-looking statements that are subject to the safe harbors created under the Securities Act of 1933, as amended, and the Securities Exchange Act of 1934, as amended, including statements regarding our expectations, beliefs, intentions and strategies for the future. When used in this report, the words “expects,” “anticipates,” “estimates,” “projects,” “intends,” “plans,” “believes,” “predicts,” “should,” “will,” “could,” “would,” “may,” “forecast,” and similar expressions and variations of such words are intended to identify forward-looking statements. Such statements relate to, among other things, the following: (i) the development and commercialization by FuelCell Energy, Inc. and its subsidiaries of fuel cell technology and products and the market for such products; (ii) expected operating results such as revenue growth and earnings; (iii) our belief that we have sufficient liquidity to fund our business operations for the next 12 months; (iv) future funding under Advanced Technologies contracts; (v) future financing for projects including publicly issued bonds, equity and debt investments by investors and commercial bank financing; (vi) the expected cost competitiveness of our technology; and (vii) our ability to achieve our sales plans and cost reduction targets.

The forward-looking statements contained in this report are subject to risks and uncertainties, known and unknown, that could cause actual results to differ materially from those forward-looking statements, including the risks contained in our Annual Report on Form 10-K for the fiscal year ended October 31, 2018 in the section entitled “Item 1A. Risk Factors,” and the following: general risks associated with product development and manufacturing; general economic conditions; changes in the utility regulatory environment; changes in the utility industry and the markets for distributed generation, distributed hydrogen, and carbon capture configured fuel cell power plants; potential volatility of energy prices; availability of government subsidies and economic incentives for alternative energy technologies; our ability to remain in compliance with U.S. federal and state and foreign government laws and regulations; rapid technological change; competition; our dependence on strategic relationships; market acceptance of our products; changes in accounting policies or practices adopted voluntarily or as required by accounting principles generally accepted in the United States; factors affecting our liquidity position and financial condition; government appropriations; the ability of the government to terminate its development contracts at any time; the ability of the government to exercise “march-in” rights with respect to certain of our patents; recent developments with POSCO Energy, which may limit our efforts to access the South Korean and Asian markets and could expose us to costs of arbitration or litigation proceedings; our ability to implement our strategy; our ability to reduce our levelized cost of energy and our cost reduction strategy generally; our ability to protect our intellectual property; litigation and other proceedings; the risk that commercialization of our products will not occur when anticipated; our need for and the availability of additional financing; our ability to generate positive cash flow from operations; our ability to service our long-term debt; our ability to increase the output and longevity of our power plants and our ability to expand our customer base and maintain relationships with our largest customers and strategic business allies.

We cannot assure you that we will be able to meet any of our development or commercialization schedules; any of our new products or technology, once developed, will be commercially successful; our existing SureSource power plants will remain commercially successful; the government will appropriate the funds anticipated by us under our government contracts; the government will not exercise its right to terminate any or all of our government contracts; or we will be able to achieve any other result anticipated in any other forward-looking statement contained herein.

Investors are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, many of which are beyond our ability to control, and that actual results may differ materially from those projected in the forward-looking statements as a result of various factors discussed herein.

Management's Discussion and Analysis of Financial Condition and Results of Operations is provided as a supplement to the accompanying financial statements and footnotes to help provide an understanding of our financial condition, changes in our financial condition and results of operations. The preparation of financial statements and related disclosures requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Estimates are used in accounting for, among other things, revenue recognition, contract loss accruals, excess, slow-moving and obsolete inventories, product warranty accruals, loss accruals on service agreements, share-based compensation expense, allowance for doubtful accounts, depreciation and amortization, impairment of goodwill and in-process research and development intangible assets, impairment of long-lived assets (including project assets), income taxes and contingencies. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary. Due to the inherent uncertainty involved in making estimates, actual results in future periods may differ from those estimates. The following discussion should be read in conjunction with information included in our Annual Report on Form 10-K for the fiscal year ended October 31, 2018 filed with the SEC. Unless otherwise indicated, the terms “Company,” “FuelCell Energy,” “we,” “us,” and “our” refer to FuelCell Energy, Inc. and its subsidiaries. All tabular dollar amounts are in thousands.

OVERVIEW AND RECENT DEVELOPMENTS

Overview

FuelCell Energy develops and delivers efficient, affordable and clean solutions for the supply, recovery and storage of energy. We design, manufacture, undertake project development of, install, operate and maintain megawatt-scale fuel cell systems, serving utilities and industrial and large municipal power users with solutions that include both utility-scale and on-site power generation, as well as advancing development of solutions for carbon capture, local hydrogen production for transportation and industrial users, and long duration energy storage. Our plants are operating in more than 50 locations on three continents and have generated more than 8.0 million megawatt hours (MWh) of electricity.

We provide comprehensive turn-key power generation solutions to our customers, including multi-year power purchase agreements (“PPAs”), power plant installation, operations and maintenance under multi-year service agreements. We both develop projects as well as sell equipment directly to customers, providing either a complete solution of engineering, installing and servicing the fuel cell power plant, or selling the power plant equipment and providing long-term maintenance only. We offer to arrange financing structures that enable power users to benefit from the multitude of advantages of clean onsite power while avoiding an up-front capital investment. Utilizing long-term PPAs or lease structures, the end-user of the power hosts the installation and only pays for power as it is delivered. For projects that we develop, the end user of the power typically enters into a PPA, and we have the option to either identify a project investor to purchase the power plant and assume the PPA, or retain the project and recognize electricity revenue over the term of the PPA. We target large-scale power users with our megawatt-class installations. To provide a frame of reference, one megawatt is adequate to continually power approximately 1,000 average sized U.S. homes. Our customer base includes utility companies, municipalities, universities, hospitals, government entities and a variety of industrial and commercial enterprises. Our leading geographic markets are the United States and South Korea, and we are pursuing expanding opportunities in other countries around the world.

Our value proposition is to enable economic returns with clean, affordable, reliable and resilient fuel cell power plants that supply power where consumed. Our products can also be configured for carbon capture, energy recovery and storage applications. Our solutions are easy-to-site in populated areas as they are clean, operate quietly and without vibrations, and have only modest space requirements. Fuel cells use an electrochemical process to convert a fuel source into electricity and heat in a highly efficient process that emits virtually no pollutants as the fuel is not burned, generating power that is almost wholly absent of criteria pollutants such as nitrogen oxide that causes smog, sulfur oxide that contributes to acid rain, and particulate matter that can aggravate asthma. Locating power generation near the point of use reduces reliance on the transmission grid, leading to enhanced energy security and power reliability. Utilities can minimize or even avoid the cost of transmission or other infrastructure by adopting distributed generation, which saves their customers the cost of installing and maintaining transmission and also avoids the losses associated with transmitting electricity over great distances. Our power plants provide electricity priced competitively to grid-delivered electricity in certain high cost regions, and our strategy is to continue to reduce costs, which we believe will lead to wider adoption.

Recent Developments

Construction Loan Agreement

On February 28, 2019, we, through our indirect wholly-owned subsidiary Groton Station Fuel Cell, LLC (“Groton Borrower”), entered into a Construction Loan Agreement (the “Construction Loan Agreement”) with Fifth Third Bank (“Fifth Third”) pursuant to which Fifth Third agreed to make available to Groton Borrower a construction loan facility in an aggregate principal amount of up to \$23.0 million (the “Groton Facility”) to fund the manufacture, construction, installation, commissioning and start-up of the 7.4 megawatt fuel cell power plant for the Connecticut Municipal Electric Energy Cooperative located on the U.S. Navy submarine base in Groton, Connecticut (the “Groton Project”). Groton Borrower made an initial draw under the Groton Facility on the date of closing of \$ 9.6 million.

Amounts borrowed under the Groton Facility bear interest at a rate equal to the sum of the one-month LIBOR Rate plus 2.25 %. Regular monthly payments are interest-only. Amounts borrowed under the Groton Facility may be prepaid at any time without penalty. The maturity date of the Groton Facility will be the earlier of (a) October 31, 2019, (b) the commercial operation date of the Groton Project, or (c) one business day after receipt of proceeds of debt financing (i.e., take out financing) in an amount sufficient to repay the outstanding indebtedness under the Groton Facility. Mandatory prepayments are required in the event of material damage or destruction to the Groton Project or a change of control of Groton Borrower.

We have agreed to guarantee Groton Borrower’s obligations under the Construction Loan Agreement. In addition, Groton Borrower’s obligations under the Construction Loan Agreement are secured by a first mortgage lien on Groton Borrower’s leasehold interest in the

Groton Project site, a security interest in the Groton Project assets, including material Groton Project related contracts such as the power purchase agreement and EPC agreement, and our equity interest in the Groton Borrower .

The Construction Loan Agreement contains customary representations and warranties, affirmative and negative covenants, and events of default that entitle Fifth Third to cause the indebtedness under the Groton Facility to become immediately due and payable.

Amendment to Hercules Loan and Security Agreement

On February 28, 2019, we and Hercules (and various affiliated entities) entered into the sixth amendment to the loan and security agreement (such amendment, the “Hercules Amendment”), which is effective as of February 22, 2019. Under the Hercules Amendment, we are required, at all times following February 22, 2019 through March 31, 2019, to maintain an unrestricted cash balance of at least (a) 50% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. Further, at all times after March 31, 2019, we are required to maintain an unrestricted cash balance of at least (a) 75% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. In addition, in the event of prepayment, the Hercules Amendment requires the payment of a prepayment charge equal to the following percentage of the advance amount being prepaid: (a) if such advance amounts are prepaid in any of the first twelve months following February 22, 2019, 2.00%, and (b) thereafter, 1.00%. In connection with the execution of the Hercules Amendment, we paid a \$250,000 non-refundable fee to Hercules.

Waiver Agreement

On February 21, 2019, we entered into a waiver agreement (the “Waiver Agreement”) with the sole remaining holder of our Series C Convertible Preferred Stock (such holder, the “Series C Holder” and such stock, the “Series C Preferred Stock”). Under the Waiver Agreement, the Series C Holder waived any equity conditions failures that may have occurred under the Certificate of Designations, Preferences and Rights of the Series C Preferred Stock (the “Series C Certificate of Designations”). The Series C Holder further waived any triggering event occurring after the date of the Waiver Agreement, as well as its right to demand, require or otherwise receive cash payments under the Series C Certificate of Designations, which waiver will terminate upon the occurrence of certain key triggering events, the occurrence of a fundamental transaction, a breach of the Waiver Agreement, or the occurrence of a bankruptcy triggering event. In addition, we agreed in the Waiver Agreement, pursuant to Section 8(d) of the Series C Certificate of Designations, to adjust the conversion price of the Series C Preferred Stock in connection with future conversions, such that, when the Series C Holder converts its Series C Preferred Stock into common stock, it will receive approximately 25% more shares than it would have received upon conversion prior to the execution of the Waiver Agreement and the adjustment of the conversion price. Under the Waiver Agreement, conversions of Series C Preferred Stock may occur after the March 1, 2019 maturity date.

Additionally, the Series C Holder acknowledged in the Waiver Agreement that no anti-dilution or other adjustments under the Series C Certificate of Designations will result from the exchange of the Warrant (as defined below) for shares of, or the issuance of shares of, our common stock pursuant to the Exchange Agreement (as defined below). We further agreed to reserve specific numbers of shares for issuance to the Series C Holder and the Series D Holders (as defined below), with such reservations to remain in place until we have increased our authorized shares of common stock or effected a reverse stock split.

Exchange Agreement

On February 21, 2019, we also entered into an Exchange Agreement (the “Exchange Agreement”) with the holder (the “Warrant Holder”) of our Series A Warrant to Purchase Common Stock, issued on July 12, 2016 (the “Warrant”), which was exercisable for 7,680,000 shares of our common stock. Pursuant to the Exchange Agreement, we have agreed to issue to the Warrant Holder 6,000,000 shares of our common stock (subject to adjustment for stock dividends, stock splits, stock combinations, and other reclassifications) in exchange for the transfer of the Warrant back to the Company, in reliance on an exemption from registration provided by Section 3(a)(9) of the Securities Act of 1933, as amended. Following the transfer of the Warrant back to the Company, the Warrant shall be cancelled and no further shares shall be issuable pursuant to the Warrant.

Consent and Waiver

On February 21, 2019, we entered into a Consent and Waiver with each of the holders of our Series D Convertible Preferred Stock (such holders, the “Series D Holders” and such stock, the “Series D Preferred Stock”), pursuant to which the Series D Holders consented to the adjustments to the conversion price of the Series C Preferred Stock set forth in the Waiver Agreement and waived certain anti-dilution rights and conversion price adjustments under the Certificate of Designations, Preferences and Rights of the Series D Preferred Stock (the “Series D Certificate of Designation”) that may have resulted from the conversion price adjustments set forth in the Waiver Agreement. The Series D Holders further acknowledged that no anti-dilution or other adjustments under the Series D Certificate of Designation will result from the exchange of the Warrant for shares of, or the issuance of shares of, our common stock pursuant to the Exchange Agreement.

Additionally, the parties agreed to implement new “pre-notice” procedures in connection with the notices to be given to the Series D Holders of subsequent placements (and their participation rights therein) under the Series D Certificate of Designation, and we agreed to reserve specific numbers of shares for issuance to the Series D Holders, with such reservations to remain in place until we have increased our authorized shares of common stock or effected a reverse stock split.

RESULTS OF OPERATIONS

Management evaluates the results of operations and cash flows using a variety of key performance indicators, including revenues compared to prior periods and internal forecasts, costs of our products and results of our cost reduction initiatives, and operating cash use. These are discussed throughout the “Results of Operations” and “Liquidity and Capital Resources” sections. Results of Operations are presented in accordance with accounting principles generally accepted in the United States (“GAAP”).

Comparison of Three Months Ended January 31, 2019 and 2018

Revenues and Costs of revenues

Our revenues and cost of revenues for the three months ended January 31, 2019 and 2018 were as follows:

(dollars in thousands)	Three Months Ended January 31,		Change	
	2019	2018	\$	%
Total revenues	\$ 17,783	\$ 38,613	\$ (20,830)	(54)%
Total costs of revenues	\$ 19,988	\$ 33,978	\$ (13,990)	(41)%
Gross (loss) profit	\$ (2,205)	\$ 4,635	\$ (6,840)	(148)%
Gross (loss) margin	(12.4)%	12.0%		

Total revenues for the three months ended January 31, 2019 of \$17.8 million reflects a decrease of \$21.8 million from \$38.6 million for the same period in the prior year. Total cost of revenues for the three months ended January 31, 2019 decreased by \$14.0 million to \$20.0 million from \$34.0 million during the same period in the prior year. A discussion of the changes in product revenues, service and license revenues, generation revenues and Advanced Technologies contract revenues follows.

Product revenues

Our product revenues, cost of product revenues and gross loss for the three months ended January 31, 2019 and 2018 were as follows:

(dollars in thousands)	Three Months Ended January 31,		Change	
	2019	2018	\$	%
Product revenues	\$ —	\$ 29,530	\$ (29,530)	(100)%
Cost of product revenues	3,422	26,137	(22,715)	(87)%
Gross (loss) profit from product revenues	\$ (3,422)	\$ 3,393	\$ (6,815)	(201)%
Product revenues gross margin	N/A	11.5%		

Product revenues for the three months ended January 31, 2018 included \$28.7 million of power plant revenue and \$0.8 million of revenue related to engineering and construction services. There was no product revenue recorded for the three months ended January 31, 2019. Product revenue for the three months ended January 31, 2018 included sales to Hanyang Industrial Development Co., Ltd (“HYD”) for a 20 megawatt (“MW”) order pursuant to which we provided equipment to HYD for a fuel cell project with Korea Southern Power Co., Ltd. (“KOSPO”).

Cost of product revenues decreased \$22.7 million for the three months ended January 31, 2019 to \$3.4 million, compared to \$26.1 million in the same period in the prior year. Overall gross loss from product revenues was \$3.4 million for the three months ended January 31, 2019 compared to gross profit of \$3.4 million in the comparable prior year period. Both periods were impacted by the under-absorption of fixed overhead costs due to low production volumes. Manufacturing variances, primarily related to low production volumes, totaled approximately \$3.2 million for the three months ended January 31, 2019 compared to approximately \$2.3 million for the three months ended January 31, 2018. For the three months ended January 31, 2019, we operated at an annualized production rate of approximately 33 MW. This is compared to the annual production rate of 25 MW in the same period in the prior year.

As of January 31, 2019, product sales backlog totaled approximately \$1.0 thousand compared to \$2.2 million as of January 31, 2018.

Service and license revenues

Service and license revenues and related costs for the three months ended January 31, 2019 and 2018 were as follows:

(dollars in thousands)	Three Months Ended January 31,		Change	
	2019	2018	\$	%
Service and license revenues	\$ 11,772	\$ 4,104	\$ 7,668	187%
Cost of service and license revenues	12,319	3,406	8,913	262%
Gross (loss) profit from service and license revenues	\$ (547)	\$ 698	\$ (1,245)	(178)%
Service and license revenues gross (loss) margin	(4.6)%	17.0%		

Revenues for the three months ended January 31, 2019 from service agreements and license fee and royalty agreements increased \$7.7 million to \$11.8 million from \$4.1 million for the three months ended January 31, 2018. Service agreement revenue increased from the three months ended January 31, 2018 primarily due to higher revenue from module replacements during the three months ended January 31, 2019 compared to the same period in the prior year. We adopted Accounting Standards Update (ASU) 2014-09, "Revenue from Contracts with Customers" (Topic 606) as of November 1, 2018 which impacted service and license revenues recognition. Service revenues are now recorded based on completion cost-to-cost input method where as previously service revenues for maintenance and monitoring were recorded ratably over the term of the service agreement and revenue from module exchanges was recognized upon the module replacement event. Performance guarantees, which were previously recorded as a cost of service and license revenues, are now accounted for as variable consideration and therefore as a reduction to service and license revenues. License revenues were previously recorded over the contract term on a straight-line basis and royalty revenue was recorded as earned, however, upon adoption of Topic 606, we assessed the performance obligations within the license contract and allocated consideration between performance obligations that are satisfied at a point in time and performance obligations that are recognized over time. Revenue from the license performance obligation that is satisfied over time, royalty and material management fees was \$0.7 million for the three-month period ended January 31, 2019 compared to \$0.6 million for the three-month period ended January 31, 2018.

Cost of service and license revenues increased \$8.9 million to \$12.3 million for the three months ended January 31, 2019 from \$3.4 million for the three months ended January 31, 2018. Cost of service agreements includes maintenance and operating costs and module exchanges. As further discussed above, cost of service agreements for the prior year period included charges for performance guarantees.

Overall gross loss from service and license revenues was \$0.5 million for the three months ended January 31, 2019. The adoption of Topic 606 resulted in a reduction of service and license margins of \$1.3 million resulting primarily from the requirement to incorporate future estimated variable consideration for performance guarantees prior to being incurred from actual plant performance. The overall gross margin loss percentage was 4.6 percent for the three months ended January 31, 2019 compared to a gross margin of 17.0 percent in the prior year period.

As of January 31, 2019, service and license backlog totaled approximately \$291.2 million compared to \$178.7 million as of January 31, 2018. Service and license backlog does not include future royalties. This backlog is for service agreements of up to twenty years and is expected to generate positive margins and cash flows based on current estimates.

Generation revenues

Generation revenues and related costs for the three months ended January 31, 2019 and 2018 were as follows:

(dollars in thousands)	Three Months Ended January 31,		Change	
	2019	2018	\$	%
Generation revenues	\$ 1,479	\$ 1,892	\$ (413)	(22)%
Cost of generation revenues	1,636	1,609	27	2%
Gross (loss) profit from generation revenues	\$ (157)	\$ 283	\$ (440)	(155)%
Generation revenues gross (loss) margin	(10.6)%	15.0%		

Revenues for the three months ended January 31, 2019 from generation totaled \$1.5 million which decreased \$0.4 million from revenue recognized of \$1.9 million for the three months ended January 31, 2018. Generation revenues for the three months ended January 31, 2019 and 2018 reflect revenue from electricity generated under our PPAs. Revenues declined for the three months ended January 31, 2018 compared to the prior year period due to maintenance activities causing a decrease in power output. Cost of generation revenues totaled \$1.6 million in the three months ended January 31, 2019 which remained unchanged from the comparable prior year period. Cost of generation revenues included depreciation of approximately \$1.0 million for the three months ended January 31, 2019 and January 31, 2018. We had 11.2 MW of operating power plants in our portfolio for both periods presented.

As of January 31, 2019, generation backlog totaled approximately \$ 982.4 million compared to \$ 414.5 million as of January 31, 2018.

Advanced Technologies contract revenues

Advanced Technologies contract revenues and related costs for the three months ended January 31, 2019 and 2018 were as follows:

(dollars in thousands)	Three Months Ended January 31,		Change	
	2019	2018	\$	%
Advanced Technologies contract revenues	\$ 4,532	\$ 3,087	\$ 1,445	47%
Cost of Advanced Technologies contract revenues	2,611	2,826	(215)	(8)%
Gross profit from Advanced Technologies contracts	\$ 1,921	\$ 261	\$ 1,660	636%
Advanced Technologies contract gross margin	42.4%	8.5%		

Advanced Technologies contract revenue for the three months ended January 31, 2019 was \$4.5 million, which reflects an increase of \$1.4 million when compared to \$3.1 million of revenue for the three months ended January 31, 2018. Advanced Technologies contract revenue was higher for the three months ended January 31, 2019 primarily due to the timing of activity under existing contracts. Cost of Advanced Technologies contract revenues decreased \$0.2 million to \$2.6 million for the three months ended January 31, 2019, compared to \$2.8 million for the same period in the prior year. Advanced Technologies contracts for the three months ended January 31, 2019 generated a gross profit of \$1.9 million compared to a gross profit of \$0.3 million for the three months ended January 31, 2018. The increase in Advanced Technologies contract gross margin is related to the timing and mix of contracts being performed during the three months ended January 31, 2019.

As of January 31, 2019, Advanced Technologies backlog totaled approximately \$37.0 million compared to \$43.0 million as of January 31, 2018.

Administrative and selling expenses

Administrative and selling expenses were \$6.8 million and \$6.1 million for the three months ended January 31, 2019 and 2018, respectively. The increase from the prior year period relates to the timing of professional related expenditures and sales and marketing costs due to business activities in the three months ended January 31, 2019.

Research and development expenses

Research and development expenses increased to \$6.3 million for the three months ended January 31, 2019 compared to \$4.0 million during the three months ended January 31, 2018. The increase related to increased development efforts with respect to new products which includes the development and certifications related to the SureSource 4000 plant located in Danbury, CT.

Loss from operations

Loss from operations for the three months ended January 31, 2019 was \$15.2 million compared to \$5.6 million for the three months ended January 31, 2018. The increase in the loss from operations was primarily a result of the gross loss recognized and higher operating expenses for the three months ended January 31, 2019.

Interest expense

Interest expense for the three months ended January 31, 2019 and 2018 was \$2.5 million and \$2.1 million, respectively. Interest expense for both periods presented includes interest on the loan and security agreement with Hercules Capital, Inc. ("Hercules"), interest expense related to sale-leaseback transactions and interest for the amortization of the redeemable preferred stock of subsidiary fair value discount.

Other income, net

Other income, net, was income of \$0.2 million and \$0.5 million for the three months ended January 31, 2019 and 2018, respectively. The income for both periods presented includes foreign exchange gains related to the remeasurement of the Canadian Dollar denominated preferred stock obligation of our U.S. Dollar functional currency Canadian subsidiary.

Benefit for income taxes, net

We have not paid federal or state income taxes in several years due to our history of net operating losses, although we have paid foreign income and withholding taxes in South Korea. There was no income tax expense recorded for the three months ended January 31, 2019 compared to an income tax benefit totaling \$3.0 million recorded for the three months ended January 31, 2018. The income tax benefit for the three months ended January 31, 2018 related to the Tax Cuts and Jobs Act (the “Act”) that was enacted on December 22, 2017. The Act reduced the U.S. federal corporate tax rate from 34% to 21% effective January 1, 2018, which resulted in a deferred tax benefit of \$1.0 million related to a reduction of our deferred tax liability for in process research and development (“IPR&D”). The Act also established an unlimited carryforward period for the net operating loss (“NOL”) we generated in fiscal year 2018. This provision of the Act resulted in a reduction of the valuation allowance attributable to deferred tax assets at the enactment date by \$2.0 million based on the indefinite life of the resulting NOL as well as the deferred tax liability for IPR&D.

Series B preferred stock dividends

Dividends recorded on our 5% Series B Cumulative Convertible Perpetual Preferred Stock (“Series B Preferred Stock”) were \$0.8 million for the three month periods ended January 31, 2019 and 2018.

Series C preferred stock deemed dividends and redemption value adjustment

Installment conversions occurring prior to August 27, 2018 in which the conversion price was below the initial conversion price of \$1.84 per share, installment conversions occurring between August 27, 2018 and December 2, 2018 in which the conversion price was below the adjusted conversion price of \$1.50 per share and installment conversions occurring between January 2, 2019 and January 31, 2019 in which the conversion price was below the further adjusted conversion price of \$0.43, resulted in a variable number of shares being issued to settle the installment amount and were treated as a partial redemption of the Series C Preferred Shares. Installment conversions during the three months ended January 31, 2019 and 2018 that were settled in a variable number of shares and treated as partial redemptions resulted in deemed dividends of \$0.5 million and \$3.5 million, respectively. The deemed dividends represent the difference between the fair value of the common shares issued to settle the installment amounts and the carrying value of the Series C Preferred Shares.

The decline in our stock price during the three months ended January 31, 2019 resulted in equity conditions failures under the Series C Certificate of Designations, which were subsequently (after quarter end) waived by the holder of the Series C Preferred Stock in that certain Waiver Agreement, dated February 21, 2019, between the Company and the holder of Series C Preferred Stock (see Note 17, “Subsequent Events” for additional information). Prior to the execution of such Waiver Agreement, the conversion price was adjusted in December 2018 and January 2019, such that the conversion price in effect as of January 31, 2019 was \$0.43. This beneficial conversion feature resulted in a \$6.6 million reduction in the Series C Preferred Shares carrying value. Because the equity conditions failures were continuing as of January 31, 2019 (prior to the execution of the Waiver Agreement), the Series C Preferred Shares were adjusted to 108% of stated redemption value as of January 31, 2019 with a corresponding charge to common shareholders of \$8.6 million.

Under the Waiver Agreement (executed after quarter end), we were deemed to have reduced the conversion price of the Series C Preferred Shares converted between the time of the equity conditions failures and the date of the Waiver Agreement as necessary to cause the number of shares of common stock delivered upon such conversions to equal the number of shares issuable upon conversion at such times.

Series D preferred stock deemed dividends and redemption accretion

Installment conversions where the conversion price is below the conversion price of \$1.38 per share (the conversion price of the Series D Preferred Stock as of January 31, 2019) result in a variable number of shares being issued to settle the installment amount and are treated as a partial redemption of the Series D Preferred Shares. Installment conversions during the three months ended January 31, 2019 that were settled in a variable number of shares and treated as redemptions resulted in deemed dividends of \$1.9 million. The deemed dividends represent the difference between the fair value of the common shares issued to settle the installment amounts and the carrying value of the Series D Preferred Shares.

The Series D Preferred Stock redemption accretion of \$3.8 million for the three months ended January 31, 2019 reflects the accretion of the difference between the carrying value and the amount that would be redeemed should stockholder approval not be obtained for common stock issuance equal to 20% or more of our outstanding voting stock prior to the issuance of the Series D Preferred Stock. In the event that we are unable to obtain such stockholder approval and are therefore prohibited from issuing shares of common stock as a result of this limitation (the “Exchange Cap Shares”) to a holder of Series D Preferred Stock at any time after April 30, 2019, we shall pay cash to such holder in exchange for the redemption of such number of Series D Preferred Shares held by such holder that are not convertible into such Exchange Cap Shares at a price equal to the product of (i) such number of Exchange Cap Shares and (ii) the closing sale price on the trading day immediately preceding the date such holder delivers the applicable conversion notice with respect to such Exchange Cap Shares to us.

Net loss attributable to common stockholders and loss per common share

Net loss attributable to common stockholders represents the net loss for the period less the preferred stock dividends on the Series B Preferred Stock, the preferred stock deemed dividends and redemption value adjustment on the Series C Preferred Stock and the Series D preferred stock deemed dividends and redemption accretion. For the three month periods ended January 31, 2019 and 2018, net loss attributable to common stockholders was \$33.0 million and \$8.4 million, respectively, and loss per common share was \$0.33 and \$0.12, respectively.

LIQUIDITY AND CAPITAL RESOURCES

As of January 31, 2019, we believe that our cash, cash equivalents on hand, cash flows from operating activities, availability under our loan facilities and access to debt and capital markets will be sufficient to meet our working capital and capital expenditure needs for at least the next twelve months.

We expect to maintain appropriate cash and debt levels based upon our expected cash requirements for operations, capital expenditures, construction of project assets and principal, interest and dividend payments. In the future, we may also engage in additional debt or equity financings, including project specific debt financings under existing and new facilities. We believe that, when necessary, we will have adequate access to the capital markets, although the timing, size and terms of any financing will depend on multiple factors, including market conditions, future order flow and the need to adjust production capacity. There can be no assurance that we will be able to raise additional capital at the times, in the amounts, or on the terms required for the implementation of our business plan and strategy. In addition, our capital-intensive business model of building generation assets increases the risk that we will be unable to successfully implement our plans, particularly if we do not raise additional capital in the amounts required. If we are unable to raise additional capital at the times or in the amounts required, or on terms favorable to us, our growth potential may be adversely affected and we may have to modify our plans which could include restructuring, workforce reductions, change in production volumes and asset or intellectual property sales. If these strategies are not successful, we may be required to delay, reduce and/or cease our operations.

Cash and cash equivalents including restricted cash totaled \$68.2 million as of January 31, 2019 compared to \$80.2 million as of October 31, 2018. As of January 31, 2019:

- Unrestricted cash and cash equivalents was \$27.8 million compared to \$39.3 million as of October 31, 2018.
- Restricted cash and cash equivalents was \$40.5 million, of which \$5.6 million was classified as current and \$34.9 million was classified as non-current, compared to \$40.9 million of total restricted cash and cash equivalents as of October 31, 2018, of which \$5.8 million was classified as current and \$35.1 million was classified as non-current.

In addition to the cash and cash equivalents described above, we have \$90.0 million of availability under our project finance loan agreement with Generate Lending, LLC. (“Lender” or “Generate Lending”).

On December 21, 2018, we, through our indirect wholly-owned subsidiary FuelCell Energy Finance II, LLC (“FCEF II” or “Borrower”), entered into a Construction Loan Agreement (the “Agreement” or the “Generate Lending Construction Loan Agreement”) with Generate Lending pursuant to which Generate Lending agreed (the “Commitment”) to make available to FCEF II a credit facility in an aggregate principal amount of up to \$100.0 million and, subject to further Lender approval and available capital, up to \$300.0 million upon our request (the “Facility”) to fund the manufacture, construction, installation, commissioning and start-up of stationary fuel cell projects to be developed by us on behalf of Borrower during the Availability Period (as defined below and in the Agreement). Fuel cell projects must meet certain conditions to be determined to be “Approved Projects” under the Facility. The Facility will be comprised of multiple loans to individual Approved Projects (each, a “Working Capital Loan”). Each Working Capital Loan will be sized to the lesser of (i) 100% of the construction budget and (ii) the invested amount that allows Lender to achieve a 10% unlevered, after-tax inefficient internal rate of return. Approved Projects will be funded on a cost incurred basis. We or FCEF II will contribute any additional equity required to construct an Approved Project on a pari-passu basis with the Working Capital Loans. The Commitment to provide Working Capital Loans will remain in place for thirty-six months from the date of the Agreement (the “Availability Period”).

Working Capital Loans

borrowed during the Availability Period for Approved Projects may be outstanding until the achievement of an Approved Project's commercial operation date, to the extent that such date is after the Availability Period. Interest will accrue at 9.5% per annum, calculated on a 30/360 basis, on all outstanding principal, paid on the first business day of each month.

The initial draw amount under the Facility, funded at closing, was \$10.0 million. The initial draw reflects loan advances for the first Approved Project under the Facility, the Bolthouse Farms 5 MW project in California. Additional drawdowns are expected to take place as we complete certain project milestones. We expect to use this Facility to fund the construction of our utility-scale backlog, including the three projects totaling 39.8 MW with LIPA (as defined below) and the two projects awarded pursuant to the Connecticut DEEP RFP, totaling 22.2 MW.

In addition, on February 28, 2019, we, through our indirect wholly-owned subsidiary Groton Station Fuel Cell, LLC ("Groton Borrower"), entered into a Construction Loan Agreement (the "Construction Loan Agreement") with Fifth Third Bank ("Fifth Third") pursuant to which Fifth Third agreed to make available to Groton Borrower a construction loan facility in an aggregate principal amount of up to \$23.0 million (the "Groton Facility") to fund the manufacture, construction, installation, commissioning and start-up of the 7.4 megawatt fuel cell power plant for the Connecticut Municipal Electric Energy Cooperative located on the U.S. Navy submarine base in Groton, Connecticut (the "Groton Project"). Groton Borrower made an initial draw under the Groton Facility on the date of closing of \$9.6 million. Amounts borrowed under the Groton Facility bear interest at a rate equal to the sum of the one-month LIBOR Rate plus 2.25%. Regular monthly payments are interest-only. Amounts borrowed under the Groton Facility may be prepaid at any time without penalty. The maturity date of the Groton Facility will be the earlier of (a) October 31, 2019, (b) the commercial operation date of the Groton Project, or (c) one business day after receipt of proceeds of debt financing (i.e., take out financing) in an amount sufficient to repay the outstanding indebtedness under the Groton Facility. Mandatory prepayments are required in the event of material damage or destruction to the Groton Project or a change of control of Groton Borrower.

As of and subsequent to January 26, 2019, Dominion Energy has the ability to terminate the membership interest purchase agreement without penalty, although we continue to work with the Connecticut Green Bank to source financing for the potential acquisition of the 14.9 MW Bridgeport fuel cell park. If we are able to secure financing and Dominion Energy agrees to sell the Bridgeport fuel cell park, the Bridgeport project would be incremental to our Generation portfolio. We are working to utilize term debt financing and would fund the balance of the \$36.6 million purchase with \$15 million of restricted cash on hand that is tied to the project and would be released at closing.

In June 2018, we entered into an At Market Issuance Sales Agreement (the "Sales Agreement") with B. Riley FBR, Inc. and Oppenheimer & Co. Inc. (together, the "Agents") to create an at the market equity program under which we, from time to time, may offer and sell shares of our common stock having an aggregate offering price of up to \$50.0 million through the Agents. Under the Sales Agreement, the Agent making the sales is entitled to a commission in an amount equal to 3.0% of the gross proceeds from such sales. Since entering into the Sales Agreement, we sold 5.7 million shares of our common stock at prevailing market prices under the Sales Agreement and received gross proceeds of \$8.0 million and paid \$0.9 million of fees and commissions. We expect to use this sales agreement from time to time to raise proceeds for general corporate purposes.

In addition to the debt facilities and Sales Agreement described above, we have an effective shelf registration statement on file with the SEC for issuance of equity and debt securities.

Our future liquidity will be dependent on obtaining a combination of increased order and contract volumes, increased cash flows from our generation and service portfolios and cost reductions necessary to achieve profitable operations. To grow our generation portfolio, we will invest in developing and building turn-key fuel cell projects which we will own and classify as project assets on the balance sheet. This strategy requires liquidity and is expected to continue to have increasing liquidity requirements as project sizes increase. We may commence building project assets upon the award of a project or execution of a multi-year PPA with an end-user that has a strong credit profile. Project development and construction cycles, which span the time between securing a PPA and commercial operation of the plant, vary substantially and can take years. As a result of these project cycles and strategic decisions to finance the construction of certain projects, we may need to make significant up-front investments of resources in advance of the receipt of any cash from the sale or long-term financing of such projects. These up-front investments may include using our working capital, availability under our construction financing facilities or other financing arrangements. Delays in construction progress or in completing financing or the sale of our projects may impact our liquidity.

Our operating portfolio (11.2 MW as of January 31, 2019) contributes higher long-term cash flows to us than if these projects had been sold. These projects currently generate \$7 - \$8 million per year in annual revenue. We plan to continue to grow this portfolio while also selling projects to investors. As of January 31, 2019, we had an additional 50.7 MW under development and construction, which projects are expected to generate operating cash flows in future periods. These totals do not include the 32.4 MW Long Island Power Authority ("LIPA") project awards, which are not yet in backlog. Including the LIPA awards, the projects in process totaled 83.1 MW as of January 31, 2019. We expect these projects, which include the LIPA awards, to generate an additional \$70 - \$80 million of annual recurring

revenue once they become operational. Retaining long-term cash flow positive projects combined with our service fleet reduces reliance on new project sales to achieve cash flow positive operations. We have worked with financial institutions to secure long-term debt and sale-leasebacks for our project asset portfolio as well as Generate Lending, Fifth Third Bank and NRG for construction period financing. As of January 31, 2019, we have financed four projects through sale-leaseback transactions. As of January 31, 2019, total financing obligations and debt outstanding related to project assets was \$63.9 million. Future required payments under these obligations total \$38.3 million as of January 31, 2019. The outstanding financing obligation under the sale-leaseback transactions includes an embedded gain which will be recognized at the end of the lease term.

Our operating portfolio provides us with the full benefit of future cash flows, net of any debt service requirements.

The following table summarizes our operating portfolio as of January 31, 2019:

Project Name	Location	Power Off-Taker	Rated Capacity (MW)	Actual Commercial Operation Date (FuelCell Energy Fiscal Quarter)	PPA Term (Years)
Central CT State University ("CCSU")	New Britain, CT	CCSU (CT University)	1.4	Q2 '12	10
UCI Medical Center ("UCI")	Orange, CA	UCI (CA University Hospital)	1.4	Q1 '16	19
Riverside Regional Water Quality Control Plant	Riverside, CA	City of Riverside (CA Municipality)	1.4	Q4 '16	20
Pfizer, Inc.	Groton, CT	Pfizer, Inc.	5.6	Q4 '16	20
Santa Rita Jail	Dublin, CA	Alameda County, California	1.4	Q1 '17	20
Total MW Operating:			11.2		

The following table summarizes projects in process as of January 31, 2019:

Project Name	Location	Power Off-Taker	Rated Capacity (MW)	Estimated Commercial Operation Date (FuelCell Energy Fiscal Quarter)	PPA Term (Years)
Triangle St	Danbury, CT	Eversource (CT Utility)	3.7	Q2 '19	Tariff
Tulare BioMAT	Tulare, CA	Southern California Edison (CA Utility)	2.8	Q3 '19	20
Bolthouse Farms	Bakersfield, CA	Bolthouse Farms (Campbell's)	5.0	Q4 '19	20
Groton Sub Base	Groton, CT	CMEEC (CT Electric Co-op)	7.4	Q2 '20	20
Toyota	Los Angeles, CA	Southern California Edison; Toyota	2.2	Q4 '21	20
LIPA 1	Long Island, NY	PSEG / LIPA, LI NY (Utility)	7.4	Q2 '20	20
LIPA 2	Long Island, NY	PSEG / LIPA, LI NY (Utility)	18.5	Q3 '21	20
LIPA 3	Long Island, NY	PSEG / LIPA, LI NY (Utility)	13.9	Q3 '22	20
CT RFP-1	Hartford, CT	Eversource (CT Utility)	7.4	Q4 '21	20
CT RFP-2	Derby, CT	United Illuminating (CT Utility)	14.8	Q4 '20	20
Total MW in Process:			83.1		

We had a contract backlog totaling approximately \$1.3 billion as of January 31, 2019. We also had project awards with respect to 32.4 MW of LIPA projects totaling an additional \$636.3 million, resulting in total backlog and awards of approximately \$1.9 billion as of January 31, 2019. The LIPA project PPAs are expected to be executed in the first half of fiscal year 2019.

Backlog by revenue category is as follows:

- Services and license backlog totaled \$291.2 million as of January 31, 2019 compared to \$178.7 million as of January 31, 2018. Services backlog includes future contracted revenue from routine maintenance and scheduled module exchanges for power plants under service agreements.
- Generation backlog totaled \$982.4 million as of January 31, 2019 compared to \$414.5 million as of January 31, 2018. Generation backlog represents future contracted energy sales under contracted PPAs between us and the end-user of the power.

- Product sales backlog totaled \$ 0.1 thousand as of January 31 , 2019 compared to \$ 2.2 million as of January 31 , 2018 .
- Advanced Technologies contract backlog totaled \$37.0 million as of January 31, 2019 compared to \$43.1 million as of January 31, 2018.

Backlog represents definitive agreements executed by us and our customers. Projects with respect to which we intend to retain ownership are included in generation backlog, which represents future revenue under long-term PPAs. Projects sold to customers (and not retained by us) are included in product sales and service backlog. Project awards referenced by us are notifications that we have been selected, typically through a competitive bidding process, to enter into definitive agreements. These awards have been publicly disclosed. We are working to enter into definitive agreements with respect to these project awards and, upon execution of a definitive agreement with respect to a project award, that project award will become backlog. Project awards that were not included in backlog as of January 31, 2019 include the 32.4 MW LIPA project awards (which are expected to become generation backlog). These awards in total represent approximately \$636.3 million of future revenue potential over the life of the projects, assuming we retain ownership of the projects . If we were to sell such projects, the backlog amount would be decreased (in an amount determined by the negotiated sales price at the time of sale) and would consist of product sales to be recognized over a one to two-year period and service revenue to be recognized over a twenty-year term.

Factors that may impact our liquidity in fiscal year 2019 and beyond include:

- Timing of project awards and factory production rate. We bid on large projects in diverse markets that can have long decision cycles and uncertain outcomes. We manage production rate based on expected demand and projects schedules. Changes to production rate take time to implement. In fiscal 2018, we began to increase our production rate from a level of 25 MW and as of January 31, 2019 the production run-rate was approximately 35 MW on an annualized basis.
- As project sizes evolve, project cycle times may increase. We may need to make significant up-front investments of resources in advance of the receipt of any cash from the sale of our projects. These amounts include development costs, interconnection costs, posting of letters of credit, bonding or other forms of security, and incurring engineering, permitting, legal, and other expenses.
- The amount of accounts receivable and unbilled receivables as of January 31, 2019 and October 31, 2018 was \$38.1 million (\$17.4 million of which is classified as “Other assets”) and \$32.4 million (\$9.4 million of which is classified as “Other assets”), respectively. Unbilled accounts receivable represents revenue that has been recognized in advance of billing the customer under the terms of the underlying contracts. Such costs have been funded with working capital and the unbilled amounts are expected to be billed and collected from customers once we meet the billing criteria under the contracts. Our accounts receivable balances may fluctuate as of any balance sheet date depending on the timing of individual contract milestones and progress on completion of our projects.
- The amount of total inventory as of January 31, 2019 and October 31, 2018 was \$54.8 million and \$53.6 million, respectively, which includes work in process inventory totaling \$26.8 million and \$29.1 million, respectively. Work in process inventory can generally be deployed rapidly while the balance of our inventory requires further manufacturing prior to deployment. As we continue to execute on our business plan, we must produce fuel cell modules and procure balance of plant (“BOP”) components in required volumes to support our planned construction schedules and potential customer contractual requirements. As a result, we may manufacture modules or acquire BOP in advance of receiving payment for such activities. This may result in fluctuations of inventory and use of cash as of any balance sheet date.
- The amount of total project assets as of January 31, 2019 and October 31, 2018 was \$109.8 million and \$99.6 million, respectively. Project assets consist of capitalized costs for fuel cell projects that are either operating and producing revenue or under construction. Project assets as of January 31, 2019 consisted of \$27.2 million of completed installations currently operating and \$82.6 million of projects in development. As of January 31, 2019, we had 11.2 MW of our operating project assets, which generated \$7.2 million of revenue in fiscal 2018. Also, as of January 31, 2019, we had an additional 83.1 MW under development and construction, some of which is expected to generate operating cash flows in fiscal year 2019. We expect this portfolio to continue to grow.
- Under the terms of certain contracts, we will provide performance security for future contractual obligations. As of January 31, 2019, we had pledged approximately \$40.5 million of our cash and cash equivalents as collateral for performance security and for letters of credit for certain banking requirements and contracts. This balance may increase with a growing backlog and installed fleet.
- For fiscal year 2019, we forecast capital expenditures in the range of \$2.0 to \$4.0 million compared to \$10.0 million in fiscal year 2018. Over the past two years, we completed the expansion of our 65,000 square foot manufacturing facility in Torrington, Connecticut by adding approximately 102,000 square feet for a total size of 167,000 square feet. Initially, this additional space will be used to enhance and streamline logistics functions through consolidation of satellite warehouse locations and will provide the space needed to reconfigure the existing production process to improve manufacturing

efficiencies and realize cost savings. Investments in 2019 are expected to include finalizing the addition of module conditioning capacity to our Torrington facility. Commissioning is expected to be completed in the first quarter of calendar year 2019, leading to anticipated logistics, time and cost savings as modules are currently shipped to our Danbury, Connecticut facility for conditioning.

Cash Flows

Cash and cash equivalents and restricted cash and cash equivalents totaled \$68.2 million as of January 31, 2019 compared to \$80.2 million as of October 31, 2018. As of January 31, 2019, restricted cash and cash equivalents was \$40.5 million, of which \$5.6 million was classified as current and \$34.9 million was classified as non-current, compared to \$40.9 million total restricted cash and cash equivalents as of October 31, 2018, of which \$5.8 million was classified as current and \$35.1 million was classified as non-current.

The following table summarizes our consolidated cash flows:

(dollars in thousands)	Three Months Ended January 31,	
	2019	2018
Consolidated Cash Flow Data:		
Net cash (used in) provided by operating activities	\$ (11,958)	\$ 39,997
Net cash used in investing activities	(14,224)	(7,393)
Net cash provided by (used in) financing activities	14,150	(4,654)
Effects on cash from changes in foreign currency rates	7	33
Net (decrease) increase in cash, cash equivalents and restricted cash	<u>\$ (12,025)</u>	<u>\$ 27,983</u>

The key components of our cash inflows and outflows were as follows:

Operating Activities – Net cash used in operating activities was \$12.0 million during the three months ended January 31, 2019, compared to \$40.0 million of net cash provided by operating activities during the three months ended January 31, 2018.

Net cash used in operating activities for the three months ended January 31, 2019 was primarily the result of the net loss of \$17.5 million and decreases of \$1.3 million in accounts receivable and increases in unbilled receivables of \$7.8 million, deferred revenue of \$5.8 million and accrued liabilities of \$2.5 million and net non-cash adjustments of \$5.0 million.

Net cash provided by operating activities for the three months ended January 31, 2018 was primarily the result of decreases in accounts receivable of \$26.3 million and inventory of \$14.8 million, increases in accrued liabilities of \$3.1 million and deferred revenue of \$1.9 million and non-cash adjustments of \$1.8 million. Accounts receivable and inventory decreased primarily as a result of cash received and inventory delivered under the HYD contract. The amounts were offset by the net loss of \$4.2 million for the three months ended January 31, 2018 and a decrease in accounts payable.

Investing Activities – Net cash used in investing activities was \$14.2 million for the three months ended January 31, 2019, compared to net cash used in investing activities of \$7.4 million during the three months ended January 31, 2018.

Net cash used in investing activities for the three months ended January 31, 2019 included a \$12.6 million investment in project assets to expand our operating portfolio and \$1.6 million for capital expenditures.

The net cash used in investing activities for the three months ended January 31, 2018 included a \$4.6 million investment in project assets to expand our operating portfolio and \$2.8 million for capital expenditures.

Financing Activities – Net cash provided by financing activities was \$14.2 million during the three months ended January 31, 2019, compared to net cash used in financing activities of \$4.7 million during the three months ended January 31, 2018.

Net cash provided by financing activities during the three months ended January 31, 2019 resulted from the receipt of \$17.3 million of debt proceeds which included \$10.0 million from the Generate Lending Working Capital Loan, \$5.8 million received from the NRG Loan Agreement and \$1.5 million received from the Enhanced Capital Loan Agreement offset by the debt repayment of \$1.6 million and the payment of preferred dividends and the return of capital of \$1.0 million.

Net cash used in financing activities during the three months ended January 31, 2018 resulted from cash payments of \$6.3 million primarily relating to the repayment obligations under the Hercules loan and the payment of preferred dividends and the return of capital of \$1.0 million. Cash payments were offset by cash received from warrant exercises of \$2.6 million.

Sources and Uses of Cash and Investments

In order to consistently produce positive cash flow from operations, we need to increase order flow to support higher production levels, leading to lower costs on a per unit basis. We also continue to invest in new product and market development and, as a result, we are not consistently generating positive cash flow from our operations. Our operations are funded primarily through cash generated from product sales, service contracts, generation assets and Advanced Technologies contracts as well as sales of equity and equity linked securities and issuances of corporate and project debt. Please see our Annual Report on Form 10-K for the fiscal year ended October 31, 2018 for further details.

Commitments and Significant Contractual Obligations

A summary of our significant commitments and contractual obligations as of January 31, 2019 and the related payments by fiscal year are as follows:

(dollars in thousands)	Payments Due by Period				
	Total	Less than 1 Year	1 – 3 Years	3 – 5 Years	More than 5 Years
Purchase commitments (1)	\$ 54,398	\$ 52,885	\$ 1,491	\$ 22	\$ —
Series 1 Preferred obligation (2)	5,049	952	4,097	—	—
Term loans (principal and interest)	66,320	38,956	11,712	5,277	10,375
Capital and operating lease commitments (3)	5,638	1,018	956	754	2,910
Sale-leaseback financing obligation (4)	20,127	3,705	6,364	4,504	5,554
Option fee (5)	550	250	300	—	—
Series B Preferred dividends payable (6)	—	—	—	—	—
Totals	\$ 152,082	\$ 97,766	\$ 24,920	\$ 10,557	\$ 18,839

- (1) Purchase commitments with suppliers for materials, supplies and services incurred in the normal course of business.
- (2) The terms of the Class A Cumulative Redeemable Exchangeable Preferred Share Agreement (the “Series 1 Preferred Share Agreement”) require payments of (i) an annual amount of Cdn. \$500,000 for dividends and (ii) an annual amount of Cdn. \$750,000 as return of capital payments payable in cash. These payments will end on December 31, 2020. Dividends accrue at a 1.25 percent quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends at a rate of 1.25 percent per quarter, compounded quarterly. On December 31, 2020, the amount of all accrued and unpaid dividends on the Series 1 Preferred Shares of Cdn. \$21.1 million and the balance of the principal redemption price of Cdn. \$4.4 million will be due to the holders of the Series 1 Preferred Shares. We have the option of making dividend payments in the form of common stock or cash under terms outlined in the Series 1 Preferred Share Agreement. For purposes of preparing the above table, the final balance of accrued and unpaid dividends due December 31, 2020 of Cdn. \$21.1 million is assumed to be paid in the form of common stock and not included in this table.
- (3) Future minimum lease payments on capital and operating leases.
- (4) The amount represents payments due on sale-leaseback transactions of our wholly-owned subsidiaries, under their respective financing agreements with PNC. Lease payments under this facility are generally payable in fixed quarterly installments over a ten-year period.
- (5) We entered into an agreement with a customer on June 29, 2016 that includes a fee for the purchase of the plants at the end of the term of the agreement. The fee is payable in installments over the term of the agreement.
- (6) We pay \$3.2 million in annual dividends on our Series B Preferred Stock. The \$3.2 million annual dividend payment has not been included in this table as we cannot reasonably determine when or if we will be able to convert the Series B Preferred Stock into shares of our common stock. We may, at our option, convert these shares into the number of shares of our common stock that are issuable at the then prevailing conversion rate if the closing price of our common stock exceeds 150 percent of the then prevailing conversion price (\$141 per share at January 31, 2019) for 20 trading days during any consecutive 30 trading day period.

In November 2016, our wholly-owned subsidiary, FuelCell Finance, entered into a membership interest purchase agreement with GW Power LLC (“GWP”) whereby FuelCell Finance purchased all of the outstanding membership interests in New Britain Renewable Energy, LLC (“NBRE”) from GWP. GWP assigned the NBRE interest to FuelCell Finance free and clear of all liens other than a pledge in favor of Webster Bank, National Association (“Webster Bank”). FuelCell Finance assumed the debt outstanding with Webster Bank in the amount of \$2.3 million. The term loan interest rate is 5.0% per annum and payments due on a quarterly basis commenced in January 2017. The balance outstanding as of January 31, 2019 was \$1.0 million.

In April 2016, we entered into the Hercules Agreement with Hercules for a loan with an aggregate principal amount of up to \$25.0 million, subject to certain terms and conditions. We received an initial term loan advance on the date of closing of \$15.0 million and an additional \$5.0 million in September 2016. The loan was a 30 month secured facility. The term loan interest rate was previously 9.75% per annum and increased to 10.0% per annum during the three months ended January 31, 2018 as a result of the increase in the prime rate. In addition to interest, which is paid on a monthly basis, principal payments commenced on November 1, 2017 in equal monthly installments. The loan balance and all accrued and unpaid interest was due and payable by October 1, 2018. Under the terms of the Hercules Agreement, there was an end of term charge of \$1.7 million also due and paid October 31, 2018.

The Hercules Agreement was amended on September 5, 2017, October 27, 2017, March 28, 2018, August 29, 2018 and December 19, 2018. The March 28, 2018 Amendment (the “March Amendment”) allowed us to draw a term loan advance of \$13.1 million. The aggregate amount outstanding, which included the amount outstanding under the original Hercules Agreement of \$11.9 million and the term loan advance under the March Amendment, was \$25.0 million as of January 31, 2019. The term loan maturity date is April 1, 2020. Payments for the aggregate amount outstanding are interest only for the initial 12-month period, followed by equal monthly installments of principal and interest until the term loan maturity date. The term loan interest rate was 10.15% per annum and increased to 10.40% per annum in June 2018, 10.65% per annum in September 2018, and 10.90% per annum in December 2018 as a result of increases in the prime rate. The term loan interest rate is the greater of either (i) 9.90% plus the prime rate minus 4.50%, and (ii) 9.90%. The initial end of term charge of \$1.7 million was paid on October 1, 2018. An additional end of term charge of \$0.9 million will be due on April 1, 2020, subject to extension upon our achievement of certain performance milestones. The additional end of term charge is being accreted over a 30-month term.

As collateral for obligations under the Hercules Agreement, as amended, we granted Hercules a security interest in FuelCell Energy, Inc.’s existing and thereafter-acquired assets except for intellectual property and certain other excluded assets. The collateral does not include assets held by FuelCell Finance, FuelCell Energy Finance II or any project subsidiary thereof. We may continue to collateralize and finance our project subsidiaries through other lenders and partners. As of January 31, 2019, the Hercules Agreement, as amended, included a minimum cash covenant requiring us to maintain an unrestricted cash balance in accounts subject to an account control agreement in favor of Hercules of at least the greater of (a) 75% of the outstanding loan balance plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the date payment was issued. The Hercules Agreement, as amended, contains customary representations and warranties, affirmative and negative covenants, and events of default that entitle Hercules to cause our indebtedness under the agreement to become immediately due and payable.

On August 29, 2018, in connection with the issuance of Series D Preferred Stock, we and Hercules (and various affiliated entities) entered into the fourth amendment to the Hercules Agreement to (i) modify the definition of “Permitted Indebtedness” to include certain redemption and/or conversion rights as set forth in the Series D Certificate of Designation, (ii) permit us, so long as no event of default has occurred and is continuing, to repurchase or redeem stock in cash pursuant to the redemption and/or conversion rights set forth in the Series D Certificate of Designation; provided that, we must make any such repurchase, redemption or payment in common stock and not in cash or other consideration unless prohibited pursuant to the terms of the Series D Certificate of Designation or otherwise prohibited by applicable law, (iii) permit us, so long as no event of default has occurred and is continuing, to pay cash dividends under the Series D Preferred Shares as required in the Series D Certificate of Designation; provided that, we must pay such dividends in common stock and not in cash or other consideration unless prohibited pursuant to the terms of the Series D Certificate of Designation or otherwise prohibited by applicable law, and (iv) add a new event of default, which occurs upon the delivery of a Triggering Event Redemption Notice (as defined under the Series D Certificate of Designation) under the Series D Certificate of Designation.

On December 19, 2018, to facilitate the Generate Lending Construction Loan Agreement described above, we and Hercules (and various affiliated entities) entered into the fifth amendment to the Hercules Agreement to (i) modify the definitions of “Permitted Investment”, “Permitted Liens”, “Project Companies”, “Project Company Indebtedness”, and “Qualified Subsidiary” to permit the creation of a new holding company, FuelCell Energy Finance II, LLC, to hold the membership interests of project companies to be funded under the Facility with Generate Lending described above and (ii) modify the definition of “Project Roundtrip Transaction” to increase the investment amount under a Project Roundtrip Transaction to \$40.0 million.

On February 28, 2019, we and Hercules (and various affiliated entities) entered into the sixth amendment to the loan and security agreement (such amendment, the “Hercules Amendment”), which is effective as of February 22, 2019. Under the Hercules Amendment, we are required, at all times following February 22, 2019 through March 31, 2019, to maintain an unrestricted cash balance of at least (a) 50% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. Further, at all times after March 31, 2019, we are required to maintain an unrestricted cash balance of at least (a) 75% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. In addition, in the event of prepayment, the Hercules Amendment requires the payment of a prepayment charge equal to the following percentage of the advance amount being prepaid: (a) if such advance amounts are prepaid in any of the first twelve months

following February 22, 2019, 2.00%, and (b) thereafter, 1.00%. In connection with the execution of the Hercules Amendment, we paid a \$250,000 non-refundable fee to Hercules .

In November 2015, we closed on a definitive Assistance Agreement with the State of Connecticut and received a disbursement of \$10.0 million which was used for the first phase of the expansion of our Torrington, Connecticut manufacturing facility. In conjunction with this financing, we entered into a \$10.0 million promissory note and related security agreements securing the loan with equipment liens and a mortgage on its Danbury, Connecticut location. Under the Agreement, we were eligible for forgiveness of up to 50 percent of the loan principal if we created 165 full-time positions and retained 538 full-time positions for two consecutive years (the “Employment Obligation”) as measured on October 28, 2017 (the “Target Date”). The Agreement was subsequently amended in April 2017 to extend the Target Date by two years to October 28, 2019.

In January 2019, we entered into a Second Amendment to the Assistance Agreement (the “Second Amendment”). The Second Amendment extends the Target Date to October 31, 2022 and amends the Employment Obligation to require us to maintain 538 full-time positions for 24 consecutive months. If we meet the Employment Obligation, as modified by the Second Amendment, and create an additional 91 full-time positions, we may receive a credit in the amount of \$2 million to be applied against the outstanding balance of the loan.

As discussed above, on July 30, 2014, our subsidiary, FuelCell Finance, entered into a Loan Agreement with NRG. Pursuant to the Loan Agreement, NRG extended a \$40.0 million Loan Facility to FuelCell Finance for the purpose of accelerating project development by the Company and its subsidiaries. Under the Loan Agreement, FuelCell Finance and its subsidiaries were permitted to draw on the Loan Facility to finance the construction of projects through the commercial operating date of the power plants. Additionally, FuelCell Finance had the option to continue the financing term for each project after the commercial operating date for a maximum term of five years per project. The interest rate is 8.5 percent per annum for construction-period financing and 8.0 percent thereafter.

On December 13, 2018, FuelCell Finance’s wholly owned subsidiary, Central CA Fuel Cell 2, LLC, drew a construction loan advance of \$5.8 million under the Loan Facility. This advance will be used to support the completion of construction of the 2.8 MW Tulare BioMAT project in California. This plant is expected to meet its commercial operations date in March 2019. In conjunction with the December 13, 2018 draw, FuelCell Finance and NRG entered into an amendment to the Loan Agreement (the “Amendment”) to revise the definitions of the terms “Maturity Date” and “Project Draw Period” under the Loan Agreement and to make other related revisions. Prior to the Amendment, FuelCell Finance and its subsidiaries were able to request draws under the Loan Facility through July 30, 2019 and the maturity date of each note under the Loan Facility was five years after the first disbursement under such note. Pursuant to the Amendment, FuelCell Finance and its subsidiaries could only request draws only through December 31, 2018 and the maturity date of each note is the earlier of (a) March 31, 2019 and (b) the commercial operation date or substantial completion date, as applicable, with respect to the fuel cell project owned by the borrower under such note. There are currently no other drawdowns or outstanding balances under the Loan Facility.

In March 2013, we closed on a long-term loan agreement with the Clean Energy Finance and Investment Authority, now known as the Connecticut Green Bank, totaling \$5.9 million in support of the Bridgeport fuel cell park project. The loan agreement carries an interest rate of 5.0 percent per annum and principal repayments will commence on the eighth anniversary of the project’s provisional acceptance date which is December 20, 2021. Outstanding amounts are secured by future cash flows from the Bridgeport fuel cell park contracts. The outstanding balance on the Connecticut Green Bank Note as of January 31, 2019 was \$6.1 million.

On January 9, 2019, we, through our indirect wholly-owned subsidiary TRS Fuel Cell, LLC, entered into a Loan and Security Agreement (the “Enhanced Capital Loan Agreement”) with Enhanced Capital Connecticut Fund V, LLC in the amount of \$1.5 million. Interest will accrue at a rate of 6.0% per annum, calculated on a 30/360 basis, on all outstanding principal, paid on the first business day of each month. The loan maturity date is three years from the date of the Enhanced Capital Loan Agreement upon which the outstanding principal and accrued interest will be payable.

We have pledged approximately \$ 40.5 million of our cash and cash equivalents as performance security and for letters of credit for certain banking requirements and contracts. As of January 31, 2019, outstanding letters of credit totaled \$ 2.6 million. These expire on various dates through August 2025. Under the terms of certain contracts, we will provide performance security for future contractual obligations. The restricted cash balance as of January 31, 2019 includes \$15.0 million which was placed in a Grantor's Trust account to secure certain of our obligations under the 15-year service agreement for the Bridgeport fuel cell park project and is reflected as long-term restricted cash. The restrictions on the \$15.0 million will be removed upon completion of the final module exchange at the Bridgeport fuel cell park project under the terms of the service agreement. The restricted cash balance as of January 31, 2019 also includes \$ 17.4 million primarily to support obligations of the power purchase and service agreements related to the PNC sale-leaseback transactions.

As of October 31, 2018, we had uncertain tax positions aggregating \$15.7 million and have reduced our NOL carryforwards by this amount. Because of the level of NOLs and valuation allowances, unrecognized tax benefits, even if not resolved in our favor, would not result in any cash payment or obligation and therefore have not been included in the contractual obligation table under the heading "Commitments and Significant Contractual Obligations."

In addition to the commitments listed in the table under the heading "Commitments and Significant Contractual Obligations," we have the following outstanding obligations:

Power purchase agreements

Under the terms of our PPAs, customers agree to purchase power from our fuel cell power plants at negotiated rates. Electricity rates are generally a function of the customers' current and estimated future electricity pricing available from the grid. We are responsible for all operating costs necessary to maintain, monitor and repair our fuel cell power plants. Under certain agreements, we are also responsible for procuring fuel, generally natural gas or biogas, to run our fuel cell power plants. In addition, under certain agreements, we are required to produce minimum amounts of power under our PPAs and we have the right to terminate PPAs by giving written notice to the customer, subject to certain exit costs. As of January 31, 2019, our operating portfolio was 11.2 MW.

Service and warranty agreements

We warranty our products for a specific period of time against manufacturing or performance defects. Our standard U.S. warranty period is generally fifteen months after shipment or twelve months after acceptance of the product. In addition to the standard product warranty, we have contracted with certain customers to provide services to ensure the power plants meet minimum operating levels for terms of up to twenty years. Pricing for service contracts is based upon estimates of future costs, which could be materially different from actual expenses. Refer to "Critical Accounting Policies and Estimates" for additional details.

Advanced Technologies contracts

We have contracted with various government agencies and certain companies from private industry to conduct research and development as either a prime contractor or sub-contractor under multi-year, cost-reimbursement and/or cost-share type contracts or cooperative agreements. Cost-share terms require that participating contractors share the total cost of the project based on an agreed upon ratio. In many cases, we are reimbursed only a portion of the costs incurred or to be incurred on the contract. While government research and development contracts may extend for many years, funding is often provided incrementally on a year-by-year basis if contract terms are met and Congress authorizes the funds. As of January 31, 2019, Advanced Technologies contracts backlog totaled \$37.0 million, of which \$25.6 million is funded and \$11.4 million is unfunded. Should funding be terminated or delayed or if business initiatives change, we may choose to devote resources to other activities, including internally funded research and development.

Off-Balance Sheet Arrangements

We have no off-balance sheet debt or similar obligations, other than operating leases, which are not classified as debt. We do not guarantee any third-party debt. See Note 16 “Commitments and Contingencies” to our consolidated financial statements for the three months ended January 31, 2019 included in this Quarterly Report on Form 10-Q for further information.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

The preparation of financial statements and related disclosures requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses and the disclosure of contingent assets and liabilities. Actual results could differ from those estimates. Estimates are used in accounting for, among other things, revenue recognition, contract loss accruals, excess, slow-moving and obsolete inventories, product warranty accruals, loss accruals on service agreements, share-based compensation expense, allowance for doubtful accounts, depreciation and amortization, impairment of goodwill and in-process research and development intangible assets, impairment of long-lived assets (including project assets), income taxes and contingencies. Estimates and assumptions are reviewed periodically, and the effects of revisions are reflected in the consolidated financial statements in the period they are determined to be necessary.

Our critical accounting policies are those that are both most important to our financial condition and results of operations and require the most difficult, subjective or complex judgments on the part of management in their application, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. For a complete description of our critical accounting policies that affect our more significant judgments and estimates used in the preparation of our condensed consolidated financial statements, refer to our Annual Report on Form 10-K for the year ended October 31, 2018 filed with the Securities and Exchange Commission.

Effective November 1, 2018, we adopted Topic 606. See “Note 3 – Revenue Recognition” included in our Notes to Consolidated Financial Statements for changes to our critical accounting policies as a result of adopting Topic 606. Other than changes to our revenue recognition policy as a result of adopting Topic 606 there have been no significant changes to the critical accounting policies disclosed in “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in our 2018 Annual Report on Form 10-K.

ACCOUNTING GUIDANCE UPDATE

See Note 2, “Recent Accounting Pronouncements,” to our Consolidated Financial Statements included in this Quarterly Report on Form 10-Q for a summary of recently adopted accounting guidance, as well as recent accounting guidance that is not yet effective.

Item 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest Rate Exposure

Cash is invested overnight with high credit quality financial institutions and therefore we are not exposed to market risk on our cash holdings from changing interest rates. Based on our overall interest rate exposure as of January 31, 2019, including all interest rate sensitive instruments, a change in interest rates of 1% would not have a material impact on our results of operations.

Foreign Currency Exchange Risk

As of January 31, 2019, approximately 2% of our total cash and cash equivalents were in currencies other than U.S. dollars (primarily the Euro, Canadian dollars and South Korean Won) and we have no plans of repatriation. The Company had sales and accounts receivable denominated in foreign currencies and had outstanding accounts receivable denominated in foreign currencies as of January 31, 2019. We make purchases from certain vendors in currencies other than U.S. dollars. Although we have not experienced significant foreign exchange rate losses to date, we may in the future, especially to the extent that we do not engage in currency hedging activities. The economic impact of currency exchange rate movements on our operating results is complex because such changes are often linked to variability in real growth, inflation, interest rates, governmental actions and other factors. These changes, if material, may cause us to adjust our financing and operating strategies.

Derivative Fair Value Exposure

Series 1 Preferred Shares

The conversion feature and the variable dividend obligation of FCE FuelCell Energy Ltd.’s (“FCE Ltd.”) Class A Cumulative Redeemable Exchangeable Preferred Shares (“Series 1 Preferred Shares”) are embedded derivatives that require bifurcation from the

host contract. The aggregate fair value of these derivatives included within long-term debt and other liabilities as of January 31, 2019 and October 31, 2018 was \$0.8 million. The fair value was based on valuation models using various assumptions, including historical stock price volatility, risk-free interest rate and a credit spread based on the yield indexes of technology high yield bonds, foreign exchange volatility as the Series 1 Preferred Shares are denominated in Canadian dollars, and the closing price of our common stock. Changes in any of these assumptions would change the underlying fair value with a corresponding charge or credit to operations.

Item 4. CONTROLS AND PROCEDURES

The Company maintains disclosure controls and procedures, which are designed to provide reasonable assurance that information required to be disclosed in the Company's periodic SEC reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

We carried out an evaluation, under the supervision and with the participation of our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures as of the end of the period covered by this report. Based on that evaluation, the Company's principal executive officer and principal financial officer have concluded that the Company's disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in the Company's periodic SEC reports is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to its principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

Effective November 1, 2018, we adopted the new revenue recognition guidance under Topic 606 using the modified retrospective method of adoption. The adoption of this guidance required the implementation of new accounting policies and processes which changed the Company's internal controls over financial reporting for revenue recognition and related disclosures for the three months ended January 31, 2019.

Except as described above, there has been no change in our internal controls over financial reporting that occurred during the last fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. LEGAL PROCEEDINGS

We are involved in legal proceedings, claims and litigation arising out of the ordinary conduct of our business. Although we cannot assure the outcome, management presently believes that the result of such legal proceedings, either individually, or in the aggregate, will not have a material adverse effect on our consolidated financial statements, and no material amounts have been accrued in our consolidated financial statements with respect to these matters.

Item 1A. RISK FACTORS

You should carefully consider the following risk factors before making an investment decision. If any of the following risks actually occur, our business, financial condition, or results of operations could be materially and adversely affected. In such cases, the trading price of our common stock could decline, and you may lose all or part of your investment.

We have incurred losses and anticipate continued losses and negative cash flow.

We have transitioned from a research and development company to a commercial products manufacturer, services provider and developer. We have not been profitable since our year ended October 31, 1997. We expect to continue to incur net losses and generate negative cash flows until we can produce sufficient revenues and margins to cover our costs. We may never become profitable. Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. For the reasons discussed in more detail below, there are uncertainties associated with our achieving and sustaining profitability. We have, from time to time, sought financing in the public markets in order to fund operations and will continue to do so. Our future ability to obtain such financing could be impaired by a variety of factors, including, but not limited to, the price of our common stock and general market conditions.

Our cost reduction strategy may not succeed or may be significantly delayed, which may result in our inability to deliver improved margins.

Our cost reduction strategy is based on the assumption that increases in production will result in economies of scale. In addition, our cost reduction strategy relies on advancements in our manufacturing process, global competitive sourcing, engineering design, reducing the cost of capital and technology improvements (including stack life and projected power output). Failure to achieve our cost reduction targets could have a material adverse effect on our results of operations and financial condition.

We have debt outstanding and may incur additional debt in the future, which may adversely affect our financial condition and future financial results.

Our total consolidated indebtedness was \$104.4 million as of January 31, 2019. This includes approximately \$62.8 million of debt at our project finance subsidiaries and \$41.6 million of debt at the corporate level. The majority of our debt is long-term with \$38.9 million due within twelve months as of January 31, 2019. Prior to January 31, 2019, we had approximately \$40 million of borrowing capacity under a revolving construction and term project financing facility under which we drew down approximately \$5.8 million in December 2018, which must be repaid by the earlier of commercial operation of our 2.8 MW Tulare BioMAT project in California or March 31, 2019. Pursuant to the agreement entered into in conjunction with the December 2018 draw, no further draws on this facility are permitted and the facility expires on March 31, 2019. On December 21, 2018, we entered into a \$100 million construction loan agreement with Generate Lending, LLC and made an initial draw of \$10 million. Our ability to make scheduled payments of the principal and interest or to refinance our indebtedness depends on our future performance, which is subject to economic, financial, competitive and other factors beyond our control. Our business may not generate cash flow from operations in the future sufficient to service our debt and make necessary capital expenditures. If we are unable to generate such cash flow, we may be required to adopt one or more alternatives, such as selling assets, restructuring operations, restructuring debt or obtaining additional equity capital on terms that may be onerous or dilutive.

It is also possible that we may incur additional indebtedness in the future in the ordinary course of business. If new debt is added to current debt levels, the risks described above could intensify.

Our debt agreements contain customary representations and warranties, affirmative and negative covenants, and events of default that entitle the lenders to cause our indebtedness under such debt agreements to become immediately due and payable. In addition, as of January 31, 2019, the Hercules Agreement, as amended, contained a financial covenant whereby we are required to maintain an unrestricted cash balance in accounts subject to an account control agreement in favor of Hercules of 75% of the outstanding loan balance plus the amount of accounts payable not paid within 90 days of the invoice date. On February 28, 2019, the Hercules Agreement was further amended such that, at all times following February 22, 2019 through March 31, 2019, we are required to maintain an unrestricted cash balance of at least (a) 50% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. Further, at

all times after March 31, 2019, we are required to maintain an unrestricted cash balance of at least (a) 75% of the outstanding loan balance, plus (b) the amount of accounts payable (as defined under GAAP) not paid within 90 days of the invoice date, in accounts subject to an account control agreement in favor of Hercules. As of January 31, 2019, the outstanding loan balance under the Hercules Agreement was \$25.5 million, including accretion of an end-of-term payment.

Our products compete with products using other energy sources, and if the prices of the alternative sources are lower than energy sources used by our products, sales of our products will be adversely affected.

Our power plants can operate on a variety of fuels including natural gas, renewable biogas, directed biogas and propane. If these fuels are not readily available or if their prices increase such that electricity produced by our products costs more than electricity provided by other generation sources, our products would be less economically attractive to potential customers. In addition, we have no control over the prices of several types of competitive energy sources such as solar, wind, oil, gas or coal or local utility electricity costs. Significant decreases (or short term increases) in the price of these technologies or fuels or grid delivered prices for electricity could also have a material adverse effect on our business because other generation sources could be more economically attractive to consumers than our products.

Financial markets worldwide have experienced heightened volatility and instability, which may have a material adverse impact on the Company, our customers and our suppliers.

Financial market volatility can affect the debt, equity and project finance markets. This may impact the amount of financing available to all companies, including companies with substantially greater resources, better credit ratings and more successful operating histories than ours. It is impossible to predict future financial market volatility and instability and the impact on the Company, and it may have a materially adverse effect on us for a number of reasons, such as:

- The long term nature of our sales cycle can require long lead times between application design, order booking and product fulfillment. For such sales, we often require substantial cash down payments in advance of delivery. Our growth strategy assumes that financing will be available for the Company to finance working capital or for our customers to provide down payments and to pay for our products. Financial market issues may delay, cancel or restrict the construction budgets and funds available to the Company or our customers for the deployment of our products and services.
- Projects using our products are, in part, financed by equity investors interested in tax benefits as well as by the commercial and governmental debt markets. The significant volatility in the U.S. and international stock markets causes significant uncertainty and may result in an increase in the return required by investors in relation to the risk of such projects.
- If we, our customers or our suppliers cannot obtain financing under favorable terms, our business may be negatively impacted.

Our contracted projects may not convert to revenue, and our project pipeline may not convert to contracts, which may have a material adverse effect on our revenue and cash flow.

Some of the orders we accept from customers require certain conditions or contingencies (such as permitting, interconnection or financing) to be satisfied, some of which are outside of our control. The time periods from receipt of a contract to installation may vary widely and are determined by a number of factors, including the terms of the customer contract and the customer's site requirements. These same or similar conditions and contingencies may be required by financiers in order to draw on financing to complete a project. This could have an adverse impact on our revenue and cash flow and our ability to complete construction of a project.

We have signed product sales contracts, engineering, procurement and construction contracts, PPAs and long-term service agreements with customers subject to contractual, technology and operating risks as well as market conditions that may affect our operating results.

We apply the percentage of completion revenue recognition method to certain product sales contracts which are subject to estimates. On a quarterly basis, we perform a review process to help ensure that total estimated contract costs include estimates of costs to complete that are based on the most recent available information. The percentage of completion for the customer contracts based on this cost analysis is then applied to the total customer contract values to determine the total revenue to be recognized to date.

In certain instances, we have executed PPAs with the end-user of the power or site host of the fuel cell power plant. We may then sell the PPA to a project investor or retain the project and collect revenue from the sale of power over the term of the PPA, recognizing electricity revenue as power is generated and sold.

We have contracted under long-term service agreements with certain customers to provide service on our products over terms up to 20 years. Under the provisions of these contracts, we provide services to maintain, monitor, and repair customer power plants to meet minimum operating levels. Pricing for service contracts is based upon estimates of future costs including future module replacements. While we have conducted tests to determine the overall life of our products, we have not run certain of our products over their projected useful life prior to large-scale commercialization. As a result, we cannot be sure that our products will last to their expected useful life, which could result in warranty claims, performance penalties, maintenance and module replacement costs in excess of our estimates and losses on service contracts.

Our ability to proceed with projects under development and complete construction of projects on schedule and within budget may be adversely affected by escalating costs for materials, tariffs, labor and regulatory compliance, inability to obtain necessary permits, interconnections or other approvals on acceptable terms or on schedule and by other factors. If any development project or construction is not completed, is delayed or is subject to cost overruns, we could become obligated to make delay or termination payments or become obligated for other damages under contracts, experience diminished returns or write off all or a portion of our investment in the project. Each of these events could have an adverse effect on our business, financial condition, results of operations and prospects.

Our growing generation portfolio of operating assets exposes us to operational risks and commodity market volatility.

We have a growing portfolio of generation assets selling power under PPAs and utility tariff programs that exposes us to operational risks and uncertainties, including, among other things, lost revenues due to prolonged outages, replacement equipment costs, risks associated with facility start-up operations, failures in the availability or acquisition of fuel, the impact of severe adverse weather conditions, natural disasters, terrorist attacks, risks of property damage or injury from energized equipment, availability of adequate water resources and ability to intake and discharge water, use of new or unproven technology, fuel commodity price risk and fluctuating market prices, and lack of alternative available fuel sources.

We extend product warranties, which could affect our operating results.

We provide for a warranty of our products for a specific period of time against manufacturing or performance defects. We accrue for warranty costs based on historical warranty claim experience, however, actual future warranty expenses may be greater than we have assumed in our estimates. As a result, operating results could be negatively impacted should there be product manufacturing or performance defects in excess of our estimates.

Our products are complex and could contain defects and may not operate at expected performance levels which could impact sales and market adoption of our products or result in claims against us.

We develop complex and evolving products and we continue to advance the capabilities of our fuel cell stacks and are now producing stacks with a net rated power output of 350 kilowatts and an expected seven-year life.

We are still gaining field operating experience with respect to our products, and despite experience gained from our growing installed base and testing performed by us, our customers and our suppliers, issues may be found in existing or new products. This could result in a delay in recognition or loss of revenues, loss of market share or failure to achieve broad market acceptance. The occurrence of defects could also cause us to incur significant warranty, support and repair costs, could divert the attention of our engineering personnel from our product development efforts, and could harm our relationships with our customers. The occurrence of these problems could result in the delay or loss of market acceptance of our products and would likely harm our business. Defects or performance problems with our products could result in financial or other damages to our customers. From time to time, we have been involved in disputes regarding product warranty issues. Although we seek to limit our liability, a product liability claim brought against us, even if unsuccessful, would likely be time consuming, could be costly to defend, and may hurt our reputation in the marketplace. Our customers could also seek and obtain damages from us for their losses. We have accrued liabilities for potential damages related to performance problems, however, actual results may be different than the assumptions used in our accrual calculations.

We currently face and will continue to face significant competition.

We compete on the basis of our products' reliability, efficiency, environmental considerations and cost. Technological advances in alternative energy products or improvements in the electric grid or other sources of power generation, or other fuel cell technologies may negatively affect the development or sale of some or all of our products or make our products non-competitive or obsolete prior to or after commercialization. Other companies, some of which have substantially greater resources than ours, are currently engaged in the development of products and technologies that are similar to, or may be competitive with, our products and technologies.

Several companies in the U.S. are engaged in fuel cell development, although we are the only domestic company engaged in manufacturing and deployment of stationary carbonate fuel cells. Other emerging fuel cell technologies (and the companies developing them) include small or portable proton-exchange membrane (“PEM”) fuel cells (Ballard Power Systems, Plug Power, and increasing activity by numerous automotive companies including Toyota, Hyundai, Honda and GM), stationary phosphoric acid fuel cells (Doosan), stationary solid oxide fuel cells (Bloom Energy), and small residential solid oxide fuel cells (Ceres Power Holdings and Ceramic Fuel Cells Ltd.). Each of these competitors has the potential to capture market share in our target markets. There are also other potential fuel cell competitors internationally that could capture market share.

Other than fuel cell developers, we must also compete with companies that manufacture more mature combustion-based equipment, including various engines and turbines, and have well-established manufacturing, distribution, operating and cost features. Electrical efficiency of these products can be competitive with our SureSource power plants in certain applications. Significant competition may also come from gas turbine companies and large scale solar and wind technologies.

We derive significant revenue from contracts awarded through competitive bidding processes involving substantial costs and risks. Due to this competitive pressure, we may be unable to grow revenue and achieve profitability.

We expect a significant portion of the business that we will seek in the foreseeable future will be awarded through competitive bidding against other fuel cell technologies and other forms of power generation. The competitive bidding process involves substantial costs and a number of risks, including the significant cost and managerial time to prepare bids and proposals for contracts that may not be awarded to us and our failure to accurately estimate the resources and costs that will be required to fulfill any contract we win. In addition, following a contract award, we may encounter significant expense, delay or contract modifications as a result of our competitors protesting or challenging contracts awarded to us in competitive bidding. In addition, multi-award contracts require that we make sustained post-award efforts to obtain task orders under the contract. We may not be able to obtain task orders or recognize revenue under these multi-award contracts. Our failure to compete effectively in this procurement environment could adversely affect our revenue and/or profitability.

Unanticipated increases or decreases in business growth may result in adverse financial consequences for us.

If our business grows more quickly than we anticipate, our existing and planned manufacturing facilities may become inadequate and we may need to seek out new or additional space, at considerable cost to us. If our business does not grow as quickly as we expect, our existing and planned manufacturing facilities would, in part, represent excess capacity for which we may not recover the cost. In that circumstance, our revenues may be inadequate to support our committed costs and our planned growth, and our gross margins and business strategy would be adversely affected.

Our plans are dependent on market acceptance of our products.

Our plans are dependent upon market acceptance of, as well as enhancements to, our products. Fuel cell systems represent an emerging market, and we cannot be sure that potential customers will accept fuel cells as a replacement for traditional power sources. As is typical in a rapidly evolving industry, demand and market acceptance for recently introduced products and services are subject to a high level of uncertainty and risk. Since the distributed generation market is still evolving, it is difficult to predict with certainty the size of the market and its growth rate. The development of a market for our products may be affected by many factors that are out of our control, including:

- the cost competitiveness of our fuel cell products including availability and output expectations and total cost of ownership;
- the future costs of natural gas and other fuels used by our fuel cell products;
- customer reluctance to try a new product;
- the market for distributed generation and government policies that affect that market;
- local permitting and environmental requirements;
- customer preference for non-fuel based technologies; and
- the emergence of newer, more competitive technologies and products.

If a sufficient market fails to develop or develops more slowly than we anticipate, we may be unable to recover the losses we will have incurred in the development of our products and may never achieve profitability.

As we continue to expand markets for our products, we intend to continue offering power production guarantees and other terms and conditions relating to our products that will be acceptable to the marketplace, and continue to develop a service organization that will aid in servicing our products and obtain self-regulatory certifications, if available, with respect to our products. Failure to achieve any of these objectives may also slow the development of a sufficient market for our products and, therefore, have a material adverse effect on our results of operations and financial condition.

We are substantially dependent on a concentrated number of customers and the loss of any one of these customers could adversely affect our business, financial condition and results of operations.

We contract with a concentrated number of customers for the sale of products and for research and development contracts. There can be no assurance that we will continue to achieve the current level of sales of our products to our largest customers. Even though our customer base is expected to increase and our revenue streams to diversify, a substantial portion of net revenues could continue to depend on sales to a limited number of customers. Our agreements with these customers may be canceled if we fail to meet certain product specifications or materially breach the agreements, or if our customers materially breach the agreements, and our customers may seek to renegotiate the terms of current agreements or renewals. The loss of, or a reduction in sales to, one or more of our larger customers could have a material adverse effect on our business, financial condition and results of operations.

Recent developments with POSCO Energy may limit our efforts to access the South Korean and Asian markets and could expose us to costs of arbitration or litigation proceedings.

We have historically relied on POSCO Energy to develop and grow the South Korean and Asian markets for our products and services. We entered into manufacturing and technology transfer agreements with POSCO Energy in 2007, 2009 and 2012, each of which expires on October 31, 2027. The Cell Technology Transfer Agreement (“CTTA”) provides POSCO Energy with the technology rights to manufacture SureSource power plants in South Korea and the right to sell power plants throughout Asia. The CTTA requires POSCO Energy to pay to the Company a 3.0% royalty on POSCO Energy net product sales, as well as a royalty on scheduled fuel cell module replacements under service agreements for modules that were built by POSCO Energy and installed at plants in Asia under the terms of long term service agreements between POSCO Energy and its customers. In March 2017, we entered into a memorandum of understanding (“MOU”) with POSCO Energy to permit us to directly develop the Asian fuel cell business, including the right for us to sell SureSource solutions in South Korea and the broader Asian market. In June 2018, POSCO Energy advised us in writing that it was terminating the MOU effective July 15, 2018. Pursuant to the terms of the MOU, notwithstanding its termination, we will continue to execute on sales commitments in Asia secured in writing prior to July 15, 2018. POSCO Energy has ceased communications with us.

On or about November 2, 2018, POSCO Energy served us with an arbitration demand, initiating a proceeding to resolve various outstanding amounts between the companies. Although we have made counterclaims and believe we have valid defenses, we cannot predict the outcome of this or any other proceeding.

In light of recent developments with POSCO Energy, we are evaluating all of our options with respect to our relationship and agreements with POSCO Energy. We cannot predict the outcome of any future discussions with POSCO Energy, if they occur, the future status or scope of our relationship with POSCO Energy, whether our relationship with POSCO Energy will continue in the future, or whether we will become involved in additional mediations, arbitrations, litigation or other proceedings with POSCO Energy, what the costs of any such proceedings will be or the effect of such proceedings on the market. Any such proceedings could result in significant expense to us and adversely affect our business and financial condition and reputation in the market, whether or not such proceedings are resolved in our favor. If our relationship with POSCO Energy ends, or continues on terms that are less favorable to us, or remains unresolved, our efforts to access the South Korean and Asian markets, which are complex markets, may not be successful or may be limited, hindered or delayed.

If our goodwill and other intangible assets, long-lived assets, inventory or project assets become impaired, we may be required to record a significant charge to earnings.

We may be required to record a significant charge to operations in our financial statements should we determine that our goodwill, IPR&D, long-lived assets (i.e., property, plant and equipment), inventory, or project assets are impaired. Such a charge might have a significant impact on our reported financial position and results of operations.

As required by accounting rules, we review our goodwill for impairment at least annually as of July 31 or more frequently if facts and circumstances indicate that it is more likely than not that the fair value of a reporting unit that has goodwill is less than its carrying value. Factors that may be considered a change in circumstances indicating that the carrying value of our goodwill might not be recoverable include a significant decline in projections of future cash flows and lower future growth rates in our industry. We review IPR&D for impairment on an annual basis as of July 31 or more frequently if facts and circumstances indicate the fair value is less than the carrying value. If the technology has been determined to be abandoned or not recoverable, we would be required to impair the asset. We review inventory, long-lived assets and project assets for impairment whenever events or changes in circumstances indicate the carrying amount may not be recoverable. We consider a project commercially viable and recoverable if it is anticipated to be sellable for a profit, or generates positive cash flows, once it is either fully developed or fully constructed. If our projects are not considered commercially viable, we would be required to impair the respective project assets.

We have risks associated with high levels of inventory.

The amount of total inventory as of January 31, 2019 and October 31, 2018 was \$54.8 million and \$53.6 million, respectively, which includes work in process inventory totaling \$26.8 million and \$29.1 million, respectively. We previously reduced our production rate and have been operating at a lower level for a period of time in order to deploy inventory to new projects and mitigate future increases in inventory. We recently announced that we are beginning to increase our production rate to prior levels. There is no guarantee, however, that we will be successful in deploying our existing inventory or the new inventory generated by increased production. In addition, there are risks that our inventory could lose some or all of its value due to technological obsolescence, shifts in market demand or other unexpected changes in industry conditions and circumstances. If we are unable to deploy our current inventory or new inventory consistent with our business plan, we may be required to sell it at a loss, abandon it or recycle it into different products. These actions would result in a significant charge to earnings. Such a charge might have a significant impact on our financial position and results of operations.

Our advanced technologies contracts are subject to the risk of termination by the contracting party and we may not realize the full amounts allocated under the contracts due to the lack of Congressional appropriations.

A portion of our fuel cell revenues has been derived from long-term cooperative agreements and other contracts with the U.S. Department of Energy and other U.S. government agencies. These agreements are important to the continued development of our technology and our products. We also contract with private sector companies under certain advanced technologies contracts to develop strategically important and complementary offerings.

Generally, our government research and development contracts are subject to the risk of termination at the convenience of the contracting agency. Furthermore, these contracts, irrespective of the amounts allocated by the contracting agency, are subject to annual Congressional appropriations and the results of government or agency sponsored reviews and audits of our cost reduction projections and efforts. We can only receive funds under these contracts ultimately made available to us annually by Congress as a result of the appropriations process. Accordingly, we cannot be sure whether we will receive the full amounts awarded under our government research and development or other contracts. Failure to receive the full amounts under any of our government research and development contracts could materially and adversely affect our business prospects, results of operations and financial condition.

A negative government audit could result in an adverse adjustment of our revenue and costs and could result in civil and criminal penalties.

Government agencies, such as the Defense Contract Audit Agency, routinely audit and investigate government contractors. These agencies review a contractor's performance under its contracts, cost structure, and compliance with applicable laws, regulations, and standards. If the agencies determine through these audits or reviews that we improperly allocated costs to specific contracts, they will not reimburse us for these costs. Therefore, an audit could result in adjustments to our revenue and costs.

Further, although we have internal controls in place to oversee our government contracts, no assurance can be given that these controls are sufficient to prevent isolated violations of applicable laws, regulations and standards. If the agencies determine that we or one of our subcontractors engaged in improper conduct, we may be subject to civil or criminal penalties and administrative sanctions, payments, fines, and suspension or prohibition from doing business with the government, any of which could materially affect our results of operations and financial condition.

The U.S. government has certain rights relating to our intellectual property, including the right to restrict or take title to certain patents .

Multiple U.S. patents that we own have resulted from government-funded research and are subject to the risk of exercise of “march-in” rights by the government. March-in rights refer to the right of the U.S. government or a government agency to exercise its non-exclusive, royalty-free, irrevocable worldwide license to any technology developed under contracts funded by the government if the contractor fails to continue to develop the technology. These “march-in” rights permit the U.S. government to take title to these patents and license the patented technology to third parties if the contractor fails to utilize the patents.

Our future success and growth is dependent on our market strategy.

We cannot assure you that we will enter into business relationships that are consistent with, or sufficient to support, our commercialization plans and our growth strategy or that these relationships will be on terms favorable to us. Even if we enter into these types of relationships, we cannot assure you that the business associates with whom we form relationships will focus adequate resources on selling our products or will be successful in selling them. Some of these arrangements have required or will require that we grant exclusive rights to certain companies in defined territories. These exclusive arrangements could result in our being unable to enter into other arrangements at a time when the business associate with whom we form a relationship is not successful in selling our products or has reduced its commitment to marketing our products. In addition, future arrangements may also include the issuance of equity and/or warrants to purchase our equity, which may have an adverse effect on our stock price and would dilute our existing stockholders. To the extent we enter into partnerships or other business relationships, the failure of these partners or other business associates to assist us with the deployment of our products may adversely affect our results of operations and financial condition.

We depend on third party suppliers for the development and supply of key raw materials and components for our products.

We use various raw materials and components to construct a fuel cell module, including nickel and stainless steel which are critical to our manufacturing process. We also rely on third-party suppliers for the balance-of-plant components in our products. Suppliers must undergo a qualification process, which takes four to twelve months. We continually evaluate new suppliers, and we are currently qualifying several new suppliers. There are a limited number of suppliers for some of the key components of our products. A supplier’s failure to develop and supply components in a timely manner or to supply components that meet our quality, quantity or cost requirements or our technical specifications, or our inability to obtain alternative sources of these components on a timely basis or on terms acceptable to us could harm our ability to manufacture our SureSource products. In addition, to the extent the processes that our suppliers use to manufacture components are proprietary, we may be unable to obtain comparable components from alternative suppliers.

We do not know whether we will be able to maintain long-term supply relationships with our critical suppliers, or secure new long-term supply relationships, or whether such relationships will be on terms that will allow us to achieve our objectives. Our business prospects, results of operations and financial condition could be harmed if we fail to secure long-term relationships with entities that will supply the required components for our SureSource products.

We depend on our intellectual property, and our failure to protect that intellectual property could adversely affect our future growth and success.

Failure to protect our existing intellectual property rights may result in the loss of our exclusivity or the right to use our technologies. If we do not adequately ensure our freedom to use certain technology, we may have to pay others for rights to use their intellectual property, pay damages for infringement or misappropriation, or be enjoined from using such intellectual property. We rely on patent, trade secret, trademark and copyright law to protect our intellectual property. In addition, we have licensed our carbonate fuel cell manufacturing intellectual property to POSCO Energy, and we depend on POSCO Energy to also protect our intellectual property rights as licensed. As of January 31, 2019, we, excluding our subsidiaries, had 94 U.S. patents and 142 patents in other jurisdictions covering our fuel cell technology (in certain cases covering the same technology in multiple jurisdictions), with patents directed to various aspects of our SureSource technology, SOFC technology, PEM fuel cell technology and applications thereof. As of January 31, 2019, we also had 72 patent applications pending in the U.S. and 142 patent applications pending in other jurisdictions. Our U.S. patents will expire between 2019 and 2036, and the current average remaining life of our U.S. patents is approximately 8.8 years. Our subsidiary, Versa Power Systems, Ltd., as of January 31, 2019, had 35 U.S. patents and 79 international patents covering the SOFC technology (in certain cases covering the same technology in multiple jurisdictions), with an average remaining U.S. patent life of approximately 6.0 years. As of January 31, 2019, Versa Power Systems, Ltd. also had three pending U.S. patent applications and 11 patent applications pending in other jurisdictions. In addition, as January 31, 2019, our subsidiary, FuelCell Energy Solutions, GmbH, had license rights to two U.S. patents and seven patents outside the U.S. for carbonate fuel cell technology licensed from Fraunhofer IKTS.

Some of our intellectual property is not covered by any patent or patent application and includes trade secrets and other know-how that is not able to be patented, particularly as it relates to our manufacturing processes and engineering design. In addition, some of our intellectual property includes technologies and processes that may be similar to the patented technologies and processes of third parties. If we are found to be infringing third-party patents, we do not know whether we will be able to obtain licenses to use such patents on acceptable terms, if at all. Our patent position is subject to complex factual and legal issues that may give rise to uncertainty as to the validity, scope, and enforceability of a particular patent.

We cannot assure you that any of the U.S. or international patents owned by us or other patents that third parties license to us will not be invalidated, circumvented, challenged, rendered unenforceable or licensed to others, or that any of our pending or future patent applications will be issued with the breadth of claim coverage sought by us, if issued at all. In addition, effective patent, trademark, copyright and trade secret protection may be unavailable, limited or not applied for in certain foreign countries.

We also seek to protect our proprietary intellectual property, including intellectual property that may not be patented or able to be patented, in part by confidentiality agreements and, if applicable, inventors' rights agreements with our subcontractors, vendors, suppliers, consultants, strategic business associates and employees. We cannot assure you that these agreements will not be breached, that we will have adequate remedies for any breach or that such persons or institutions will not assert rights to intellectual property arising out of these relationships. Certain of our intellectual property has been licensed to us on a non-exclusive basis from third parties that may also license such intellectual property to others, including our competitors. If our licensors are found to be infringing third-party patents, we do not know whether we will be able to obtain licenses to use the intellectual property licensed to us on acceptable terms, if at all.

If necessary or desirable, we may seek extensions of existing licenses or further licenses under the patents or other intellectual property rights of others. However, we can give no assurances that we will obtain such extensions or further licenses or that the terms of any offered licenses will be acceptable to us. The failure to obtain a license from a third party for intellectual property that we use at present could cause us to incur substantial liabilities, and to suspend the manufacture or shipment of products or our use of processes requiring the use of that intellectual property.

While we are not currently engaged in any intellectual property litigation, we could become subject to lawsuits in which it is alleged that we have infringed the intellectual property rights of others or commence lawsuits against others who we believe are infringing our rights or violating their agreements to protect our intellectual property. Our involvement in intellectual property litigation could result in significant expense to us, adversely affecting the development of sales of the challenged product or intellectual property and diverting the efforts of our technical and management personnel, whether or not that litigation is resolved in our favor.

Our future success will depend on our ability to attract and retain qualified management, technical, and other personnel.

Our future success is substantially dependent on the continued services and performance of our executive officers and other key management, engineering, scientific, manufacturing and operating personnel, particularly Arthur Bottone, our Chief Executive Officer. The loss of the services of any executive officer, including Mr. Bottone, or other key management, engineering, scientific, manufacturing and operating personnel, could materially adversely affect our business. Our ability to achieve our commercialization plans and to increase production at our manufacturing facility in the future will also depend on our ability to attract and retain additional qualified management, technical, manufacturing and operating personnel. Recruiting personnel for the fuel cell industry is competitive. We do not know whether we will be able to attract or retain additional qualified management, technical, manufacturing and operating personnel. Our inability to attract and retain additional qualified management, technical, manufacturing and operating personnel, or the departure of key employees, could materially and adversely affect our development, commercialization and manufacturing plans and, therefore, our business prospects, results of operations and financial condition. In addition, our inability to attract and retain sufficient management, technical, manufacturing and operating personnel to quickly increase production at our manufacturing facility when and if needed to meet increased demand may adversely impact our ability to respond rapidly to any new product, growth or revenue opportunities.

Our management may be unable to manage rapid growth effectively.

Our fiscal year 2019 plan calls for an increase to our annual production rate. We may further rapidly expand our facilities and manufacturing capabilities, accelerate the commercialization of our products and enter a period of rapid growth, which will place a significant strain on our senior management team and our financial and other resources. Any expansion may expose us to increased competition, greater overhead, marketing and support costs and other risks associated with the commercialization of a new product. We would need to obtain sufficient backlog in order to maintain the use of the expanded capacity. Our ability to manage rapid growth effectively will require us to continue to secure adequate sources of capital and financing, improve our operations, improve our financial and management information systems and train, motivate and manage our employees. Difficulties in effectively managing issues presented by such a rapid expansion could harm our business prospects, results of operations and financial condition.

We may be affected by environmental and other governmental regulation.

We are subject to various federal, state and local laws and regulations relating to, among other things, land use, safe working conditions, handling and disposal of hazardous and potentially hazardous substances and emissions of pollutants into the atmosphere. In addition, it is possible that industry-specific laws and regulations will be adopted covering matters such as transmission scheduling, distribution, emissions, and the characteristics and quality of our products, including installation and servicing. These regulations could limit the growth in the use of carbonate fuel cell products, decrease the acceptance of fuel cells as a commercial product and increase our costs and, therefore, the price of our products. Accordingly, compliance with existing or future laws and regulations could have a material adverse effect on our business prospects, results of operations and financial condition.

Utility companies may resist the adoption of distributed generation and could impose customer fees or interconnection requirements on our customers that could make our products less desirable.

Investor-owned utilities may resist adoption of distributed generation fuel cell plants as such plants are disruptive to the utility business model that primarily utilizes large central generation power plants and associated transmission and distribution. On-site distributed generation that is on the customer-side of the electric meter competes with the utility. Distributed generation on the utility-side of the meter generally has power output that is significantly less than central generation power plants and may be perceived by the utility as too small to materially impact its business, limiting its interest. Additionally, perceived technology risk may limit utility interest in stationary fuel cell power plants.

Utility companies commonly charge fees to larger, industrial customers for disconnecting from the electric grid or for having the capacity to use power from the electric grid for back up purposes. These fees could increase the cost to our customers of using our SureSource products and could make our products less desirable, thereby harming our business prospects, results of operations and financial condition.

We could be liable for environmental damages resulting from our research, development or manufacturing operations.

Our business exposes us to the risk of harmful substances escaping into the environment, resulting in personal injury or loss of life, damage to or destruction of property, and natural resource damage. Depending on the nature of the claim, our current insurance policies may not adequately reimburse us for costs incurred in settling environmental damage claims, and in some instances, we may not be reimbursed at all. Our business is subject to numerous federal, state, and local laws and regulations that govern environmental protection and human health and safety. We believe that our businesses are operating in compliance in all material respects with applicable environmental laws, however, these laws and regulations have changed frequently in the past and it is reasonable to expect additional and more stringent changes in the future.

Our operations may not comply with future laws and regulations and we may be required to make significant unanticipated capital and operating expenditures. If we fail to comply with applicable environmental laws and regulations, governmental authorities may seek to impose fines and penalties on us or to revoke or deny the issuance or renewal of operating permits and private parties may seek damages from us. Under those circumstances, we might be required to curtail or cease operations, conduct site remediation or other corrective action, or pay substantial damage claims.

Our products use inherently dangerous, flammable fuels, operate at high temperatures and use corrosive carbonate material, each of which could subject our business to product liability claims.

Our business exposes us to potential product liability claims that are inherent in products that use hydrogen. Our products utilize fuels such as natural gas and convert these fuels internally to hydrogen that is used by our products to generate electricity. The fuels we use are combustible and may be toxic. In addition, our SureSource products operate at high temperatures and use corrosive carbonate material, which could expose us to potential liability claims. Although we have incorporated a robust design and redundant safety features in our power plants, have established comprehensive safety, maintenance, and training programs, follow third-party certification protocols, codes and standards, and do not store natural gas or hydrogen at our power plants, we cannot guarantee that there will not be accidents. Any accidents involving our products or other hydrogen-using products could materially impede widespread market acceptance and demand for our products. In addition, we might be held responsible for damages beyond the scope of our insurance coverage. We also cannot predict whether we will be able to maintain adequate insurance coverage on acceptable terms.

We are subject to risks inherent in international operations.

Since we market our products both inside and outside the U.S., our success depends in part on our ability to secure international customers and our ability to manufacture products that meet foreign regulatory and commercial requirements in target markets. Sales to customers located outside the U.S. accounts for a significant portion of our consolidated revenue. Sales to customers in South Korea represent the majority of our international sales. We have limited experience developing and manufacturing our products to comply with the commercial and legal requirements of international markets. In addition, we are subject to tariff regulations and requirements for export licenses, particularly with respect to the export of some of our technologies. We face numerous challenges in our international expansion, including unexpected changes in regulatory requirements and other geopolitical risks, fluctuations in currency exchange rates, longer accounts receivable requirements and collections, greater bonding and security requirements, difficulties in managing international operations, potentially adverse tax consequences, restrictions on repatriation of earnings and the burdens of complying with a wide variety of international laws. Any of these factors could adversely affect our results of operations and financial condition.

We source raw materials and parts for our products on a global basis, which subjects us to a number of potential risks, including the impact of export duties and quotas, trade protection measures imposed by the U.S. and other countries including tariffs, potential for labor unrest, changing global and regional economic conditions and current and changing regulatory environments. Changes to these factors may have an adverse effect on our ability to source raw materials and parts in line with our current cost structure.

Although our reporting currency is the U.S. dollar, we conduct our business and incur costs in the local currency of most countries in which we operate. As a result, we are subject to currency translation and transaction risk. Changes in exchange rates between foreign currencies and the U.S. dollar could affect our net sales and cost of sales and could result in exchange gains or losses. We cannot accurately predict the impact of future exchange rate fluctuations on our results of operations.

We could also expand our business into new and emerging markets, many of which have an uncertain regulatory environment relating to currency policy. Conducting business in such markets could cause our exposure to changes in exchange rates to increase, due to the relatively high volatility associated with emerging market currencies and potentially longer payment terms for our proceeds. Our ability to hedge foreign currency exposure is dependent on our credit profile with financial institutions that are willing and able to do business with us. Deterioration in our credit position or a significant tightening of the credit market conditions could limit our ability to hedge our foreign currency exposure; and therefore, result in exchange gains or losses.

Exports of certain of our products are subject to various export control regulations and may require a license or permission from the U.S. Department of State, the U.S. Department of Energy or other agencies.

As an exporter, we must comply with various laws and regulations relating to the export of products, services and technology from the U.S. and other countries having jurisdiction over our operations. We are subject to export control laws and regulations, including the International Traffic in Arms Regulation (“ITAR”), the Export Administration Regulation (“EAR”), and the Specially Designated Nationals and Blocked Persons List, which generally prohibit U.S. companies and their intermediaries from exporting certain products, importing materials or supplies, or otherwise doing business with restricted countries, businesses or individuals, and require companies to maintain certain policies and procedures to ensure compliance. We are also subject to the Foreign Corrupt Practices Act which prohibits improper payments to foreign governments and their officials by U.S. and other business entities. Under these laws and regulations, U.S. companies may be held liable for their actions and actions taken by their strategic or local partners or representatives. If we, or our intermediaries, fail to comply with the requirements of these laws and regulations, or similar laws of other countries, governmental authorities in the United States or elsewhere, as applicable, could seek to impose civil and/or criminal penalties, which could damage our reputation and have a material adverse effect on our business, financial condition and results of operations.

We are also subject to registration under the U.S. State Department’s Directorate of Defense Trade Controls (“DDTC”). Due to the nature of certain of our products and technology, we must obtain licenses or authorizations from various U.S. government agencies such as DDTC or DOE, before we are permitted to sell such products or license such technology outside of the U.S. We can give no assurance that we will continue to be successful in obtaining the necessary licenses or authorizations or that certain sales will not be prevented or delayed. Any significant impairment of our ability to sell products or license technology outside of the U.S. could negatively impact our results of operations, financial condition or liquidity.

We depend on strategic relationships with third parties, and the terms and enforceability of many of these relationships are not certain .

We have entered into strategic relationships with third parties for the design, product development, sale and service of our existing products and products under development, some of which may not have been documented by a definitive agreement and others of which may require renewal. The terms and conditions of many of these relationships allow for termination by the third parties. Termination or expiration of any of these relationships could adversely affect our ability to design, develop and distribute these products to the marketplace. We cannot assure you that we will be able to successfully negotiate and execute definitive agreements or renewals with any of these third parties, and failure to do so may effectively terminate the relevant relationship.

If we fail to maintain an effective system of internal controls, we may not be able to accurately report our financial results or prevent fraud, which could harm our brand and operating results.

Effective internal controls are necessary for us to provide reliable and accurate financial reports and effectively prevent fraud. We have devoted significant resources and time to comply with the internal control over financial reporting requirements of the Sarbanes-Oxley Act of 2002. In addition, Section 404 under the Sarbanes-Oxley Act of 2002 requires that we assess, and that our auditors attest to, the design and operating effectiveness of our controls over financial reporting. Our compliance with the annual internal control report requirement for each fiscal year will depend on the effectiveness of our financial reporting and data systems and controls. Inferior internal controls could cause investors to lose confidence in our reported financial information, which could have a negative effect on the trading price of our stock and our access to capital.

We are increasingly dependent on information technology, and disruptions, failures or security breaches of our information technology infrastructure could have a material adverse effect on our operations. In addition, increased information technology security threats and more sophisticated computer crime pose a risk to our systems, networks, products and services.

We rely on information technology networks and systems, including the Internet, to process, transmit and store electronic and financial information and to manage a variety of business processes and activities, including communication with power plants owned by us or our customers and production, manufacturing, financial, logistics, sales, marketing and administrative functions. Additionally, we collect and store data that is sensitive to us and to third parties. Operating these information technology networks and systems and processing and maintaining this data, in a secure manner, are critical to our business operations and strategy. We depend on our information technology infrastructure to communicate internally and externally with employees, customers, suppliers and others. We also use information technology networks and systems to comply with regulatory, legal and tax requirements and to operate our fuel cell power plants. These information technology systems, many of which are managed by third parties or used in connection with shared service centers, may be susceptible to damage, disruptions or shutdowns due to failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, computer viruses, attacks by computer hackers or other cybersecurity risks, telecommunication failures, user errors, natural disasters, terrorist attacks or other catastrophic events. If any of our significant information technology systems suffer severe damage, disruption or shutdown, and our disaster recovery and business continuity plans do not effectively resolve the issues in a timely manner, our product sales, financial condition and results of operations may be materially and adversely affected, and we could experience delays in reporting our financial results, or our fuel cell power plant operations may be disrupted, exposing us to performance penalties under our contracts with customers.

In addition, information technology security threats – from user error to cybersecurity attacks designed to gain unauthorized access to our systems, networks and data – are increasing in frequency and sophistication. Cybersecurity attacks may range from random attempts to coordinated and targeted attacks, including sophisticated computer crime and advanced persistent threats. These threats pose a risk to the security of our systems and networks and the confidentiality, availability and integrity of our data. Cybersecurity attacks could also include attacks targeting customer data or the security, integrity and/or reliability of the hardware and software installed in our products. We have experienced cybersecurity attacks that have resulted in unauthorized parties gaining access to our information technology systems and networks, and we could in the future experience similar attacks. However, to date, no cybersecurity attack has had a material impact on our financial condition, results of operations or liquidity. While we actively manage information technology security risks within our control, there can be no assurance that such actions will be sufficient to mitigate all potential risks to our systems, networks and data. In addition to the direct potential financial risk as we continue to build, own and operate generation assets, other potential consequences of a material cybersecurity attack include reputational damage, litigation with third parties, disruption to systems, unauthorized release of confidential or otherwise protected information, corruption of data, diminution in the value of our investment in research, development and engineering, and increased cybersecurity protection and remediation costs, which in turn could adversely affect our competitiveness, results of operations and financial condition. The amount of insurance coverage we maintain may be inadequate to cover claims or liabilities relating to a cybersecurity attack.

Litigation could expose us to significant costs and adversely affect our business, financial condition, and results of operations.

We are, or may become, party to various lawsuits and claims arising in the ordinary course of business, which may include lawsuits or claims relating to commercial liability, product recalls, product liability, product claims, employment matters, environmental matters, or other aspects of our business. Litigation is inherently unpredictable, and although we may believe we have meaningful defenses in these matters, we may incur judgments or enter into settlements of claims that could have a material adverse effect on our business, financial condition, and results of operations. The costs of responding to or defending litigation may be significant and may divert the attention of management away from our strategic objectives. There may also be adverse publicity associated with litigation that may decrease customer confidence in our business, regardless of whether the allegations are valid or whether we are ultimately found liable. As a result, litigation may have a material adverse effect on our business, financial condition, and results of operations.

Our results of operations could vary as a result of changes to our accounting policies or the methods, estimates and judgments we use in applying our accounting policies.

The methods, estimates and judgments we use in applying our accounting policies have a significant impact on our results of operations. Such methods, estimates and judgments are, by their nature, subject to substantial risks, uncertainties and assumptions, and factors may arise over time that could lead us to reevaluate our methods, estimates and judgments.

In future periods, management will continue to reevaluate its estimates for contract margins, service agreements, loss accruals, warranty, performance guarantees, liquidated damages and inventory valuation allowances. Changes in those estimates and judgments could significantly affect our results of operations and financial condition. We will also adopt changes required by the Financial Accounting Standards Board and the Securities and Exchange Commission (“SEC”).

Our stock price has been and could remain volatile.

The market price for our common stock has been and may continue to be volatile and subject to extreme price and volume fluctuations in response to market and other factors, including the following, some of which are beyond our control:

- failure to meet commercialization milestones;
- failure to win contracts through competitive bidding processes;
- the loss of a major customer;
- variations in our quarterly operating results from the expectations of securities analysts or investors;
- downward revisions in securities analysts’ estimates or changes in general market conditions;
- changes in the securities analysts that cover us or failure to regularly publish reports;
- announcements of technological innovations or new products or services by us or our competitors;
- announcements by us or our competitors of significant acquisitions, strategic partnerships, joint ventures or capital commitments;
- additions or departures of key personnel;
- investor perception of our industry or our prospects;
- insider selling or buying;
- demand for our common stock;
- general technological or economic trends; and
- changes in United States or foreign political environment and the passage of laws, including, tax, environmental or other laws, affecting the product development business.

In the past, following periods of volatility in the market price of their stock, many companies have been the subject of securities class action litigation. If we became involved in securities class action litigation in the future, it could result in substantial costs and diversion of management’s attention and resources and could harm our stock price, business prospects, results of operations and financial condition.

Provisions of Delaware and Connecticut law and of our certificate of incorporation and by-laws and our outstanding securities may make a takeover more difficult.

Provisions in our certificate of incorporation and by-laws and in Delaware and Connecticut corporate law may make it difficult and expensive for a third-party to pursue a tender offer, change in control or takeover attempt that is opposed by our management and board of directors. In addition, certain provisions of the “Series 1 Preferred Shares, our Series B Preferred Stock (such shares, the “Series B Preferred Shares”), our Series C Convertible Preferred Stock (such shares, the “Series C Preferred Shares”), and our Series D Preferred Stock (such shares, the “Series D Preferred Shares”) could make it more difficult or more expensive for a third party to acquire us. Public stockholders who might desire to participate in such a transaction may not have an opportunity to do so. These anti-takeover provisions could substantially impede the ability of public stockholders to benefit from a change in control or change in our management and board of directors.

Our amended and restated by-laws provide that the Court of Chancery of the State of Delaware is the exclusive forum for substantially all disputes between us and our stockholders, which could limit our stockholders’ ability to obtain a judicial forum deemed favorable by the stockholder for disputes with us or our directors, officers or employees.

Our amended and restated by-laws provide that the Court of Chancery of the State of Delaware is the exclusive forum for any derivative action or proceeding brought on our behalf, any action asserting a breach of fiduciary duty, any action asserting a claim against us arising pursuant to the Delaware General Corporation Law, our certificate of incorporation or our amended and restated by-laws, any action to interpret, apply, enforce, or determine the validity of our certificate of incorporation or amended and restated by-laws, or any action asserting a claim against us that is governed by the internal affairs doctrine. The choice of forum provision may limit a stockholder’s ability to bring a claim in a judicial forum that the stockholder finds favorable for disputes against us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated by-laws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could adversely affect our business and financial condition.

The implementation of our business plan and strategy will require additional capital.

The implementation of our business plan and strategy requires additional capital. If we are unable to raise additional capital in the amounts required, or at all, we will not be able to successfully implement our business plan and strategy. There can be no guarantee that we will be able to raise such additional capital at the times required or in the amounts required for the implementation of our business plan and strategy. In addition, the recent change to a more capital-intensive business model increases the risks of our being able to successfully implement our plans, if we do not raise additional capital in the amounts required. If we are unable to raise additional capital, our business, operations and prospects could be materially and adversely affected.

We will need to raise additional capital, and such capital may not be available on acceptable terms, if at all. If we do raise additional capital utilizing equity, existing stockholders will suffer dilution. If we do not raise additional capital, our business could fail or be materially and adversely affected.

We will need to raise additional funds in debt and equity financings, and these funds may not be available to us when we need them or on acceptable terms, if at all. Such additional financings could be significant. If we raise additional funds through further issuances of our common stock, or securities convertible or exchangeable into shares of our common stock, into the public market, including shares of our common stock issued upon exercise of options or warrants, you could suffer significant dilution, and any new equity securities we issue could have rights, preferences and privileges superior to those of our then-existing capital stock. Any debt financing secured by us in the future could involve restrictive covenants relating to our capital raising activities and other financial and operational matters, which may make it more difficult for us to obtain additional capital and to pursue business opportunities. If we cannot raise additional funds when we need them, our business and prospects could fail or be materially and adversely affected. In addition, if additional funds are not secured in the future, we will have to modify, reduce, defer or eliminate parts of our present and anticipated future projects.

Future sales of substantial amounts of our common stock could affect the market price of our common stock.

Future sales of substantial amounts of our common stock, or securities convertible or exchangeable into shares of our common stock, into the public market, including shares of our common stock issued upon exercise of options or warrants, or perceptions that those sales could occur, could adversely affect the prevailing market price of our common stock and our ability to raise capital in the future.

We may be subject to actions for rescission or damages or other penalties in connection with certain sales of shares of our common stock in the open market.

Between August 2005 and April 2017, we sold shares of our common stock pursuant to a series of “at-the-market” sales plans. The shares sold pursuant to these sales plans represented a portion of the shares registered by us pursuant to shelf registration statements we filed with the SEC during this time period. While we reported the actual shares sold and proceeds, net of fees, of sales made during each fiscal quarter pursuant to the sales plans in our annual and quarterly reports on Forms 10-K and 10-Q, we did not file or deliver prospectus supplements at the time of or prior to making these sales. Accordingly, these sales may not have been in compliance with applicable federal and/or state securities laws, and the purchasers of such shares may have rescission rights or claims for damages. In addition, to the extent that these sales were not in compliance with applicable federal and/or state securities laws, we may be subject to penalties imposed by the SEC and/or state securities agencies. We have reported these sales to the SEC, and in response to our report, the SEC has opened an informal investigation of these sales. If purchasers successfully seek rescission and/or damages, and/or the SEC and/or state securities agencies impose financial penalties on us which are not covered by insurance, we may not have sufficient resources to make the necessary payments, and any such claims, damages or penalties could have a material adverse effect on our stock price, business prospects, results of operations, and financial condition. Although we believe we would have defenses to such claims or actions if brought, we are unable to predict the likelihood of any claims or actions being brought against us, or the amount of any damages or financial penalties which could be sought against us, or the extent to which any such financial exposure would be covered by insurance.

The rights of the Series 1 Preferred Shares and the Series B Preferred Stock could negatively impact our cash flows and could dilute the ownership interest of our stockholders.

The terms of the Series 1 Preferred Shares issued by FCE Ltd. provide rights to the holder, Enbridge Inc. (“Enbridge”), which could negatively impact us.

The provisions of the Series 1 Preferred Shares require that FCE Ltd. make annual payments totaling Cdn. \$1,250,000, including (i) annual dividend payments of Cdn. \$500,000 and (ii) annual return of capital payments of Cdn. \$750,000. These payments will end on December 31, 2020. Additional dividends accrue on cumulative unpaid dividends at a 1.25% quarterly rate, compounded quarterly, until payment thereof. On December 31, 2020, the amount of all accrued and unpaid dividends on the Series 1 Preferred Shares of Cdn. \$21.1 million and the balance of the principal redemption price of Cdn. \$4.4 million must be paid to the holders of the Series 1 Preferred Shares. FCE Ltd. has the option of making dividend payments in the form of common stock or cash under the terms of the Series 1 Preferred Shares.

We are also required to issue common stock to the holder of the Series 1 Preferred Shares if and when the holder exercises its conversion rights. The number of shares of common stock that we may issue upon conversion could be significant and dilutive to our existing stockholders. For example, assuming the holder of the Series 1 Preferred Shares exercises its conversion rights after July 31, 2020 and assuming our common stock price is \$0.51 (our common stock closing price on January 31, 2019), and an exchange rate of U.S. \$1.00 to Cdn. \$1.31 (exchange rate on January 31, 2019) at the time of conversion, we would be required to issue approximately 6,983,844 shares of our common stock.

The terms of the Series B Preferred Stock also provide rights to their holders that could negatively impact us. Holders of the Series B Preferred Stock are entitled to receive cumulative dividends at the rate of \$50 per share per year, payable either in cash or in shares of our common stock. To the extent the dividend is paid in shares, additional issuances could be dilutive to our existing stockholders and the sale of those shares could have a negative impact on the price of our common stock. A share of our Series B Preferred Stock may be converted at any time, at the option of the holder, into 7.0922 shares of our common stock (which is equivalent to an initial conversion price of \$141 per share), plus cash in lieu of fractional shares. Furthermore, the conversion rate applicable to the Series B Preferred Stock is subject to additional adjustment upon the occurrence of certain events.

Conversion of all of the Series D Preferred Shares is contingent upon stockholder approval.

Pursuant to the requirements of Nasdaq Listing Rule 5635(d), the Series D Preferred Shares may not be converted or redeemed by payment of shares of our common stock if such conversion or redemption would cause us to issue a number of shares equal to 20% or more of our outstanding voting stock prior to the issuance of the Series D Preferred Shares, until our stockholders approve the issuance of the common stock underlying the Series D Preferred Shares. We have filed a proxy statement with the SEC for the purpose of having our stockholders vote on a proposal to approve such issuances. Our stockholders may reject the proposal, which would impact our ability to make payments in the form of common stock pursuant to the amortization provisions of the Series D Preferred Shares and would require us to make such payments in cash.

We may not be able to make cash payments to redeem the Series C Preferred Shares and the Series D Preferred Shares .

We have the obligation to make bimonthly redemption payments on the Series D Preferred Shares commencing on December 1, 2018. These mandatory redemption payments may each be made, at our option, in cash or in shares of our common stock or in a combination of cash and shares of our common stock, except that our right to make payment in shares of common stock is dependent upon our satisfying certain equity conditions, unless such conditions are waived by the holders of the Series D Preferred Shares. Among other things, these equity conditions include our continued listing on The Nasdaq Global Market or another permitted exchange and our stock maintaining certain minimum average prices and trading volumes during the applicable measurement period.

In addition, the Series D Preferred Shares may not be converted or redeemed by payment of shares of our common stock if such conversion or redemption would cause us to issue a number of shares equal to 20% or more of our outstanding voting stock prior to the issuance of the Series D Preferred Shares, until our stockholders approve the issuance of the common stock underlying the Series D Preferred Shares. If we cannot satisfy the equity conditions, or, if our stockholders do not approve the issuance of a number of shares equal to 20% or more of our outstanding voting stock as of the date of issuance of the Series D Preferred Shares, we will not be able to make or will be limited in our ability to make (as applicable) our bimonthly mandatory redemption payments in stock, and we would be forced to make such bimonthly payments in cash. We may not have sufficient cash resources at the applicable time to make those cash payments, or to make such cash payments in full. In addition, certain such cash payments may not be permitted under the terms of our existing or future indebtedness or may cause us to fail to satisfy financial maintenance covenants.

Further, any failure to pay any amounts due to the holders of the Series D Preferred Shares, as well as certain other “triggering events,” including, without limitation, our failure to timely deliver shares, our suspension of trading, our failure to keep reserved for issuance an adequate number of shares of common stock to cover conversion of the Series D Preferred Shares, and breaches of certain covenants that are not timely cured, where a cure period is permitted, would permit the holders of the Series D Preferred Shares to require us to redeem such Series D Preferred Shares, in cash at a price equal to the greater of (i) 125% of the stated value of the Series D Preferred Shares being redeemed, as the case may be, plus accrued dividends, if any, and (ii) the market value of the number of shares issuable on conversion of the Series D Preferred Shares valued at the greatest closing sales price during the period from the date immediately before the triggering event through the date we make the redemption payment. However, if we are actually delisted from The Nasdaq Global Market, without obtaining a listing on another national securities exchange, it would constitute a “triggering event” under the Series D Certificate of Designation and would also cause a failure of the equity conditions that must be satisfied in order for us to make redemptions payments in shares of our common stock. Thus, if we fail to maintain trading or listing, as applicable, or if for any other reason we are required to repurchase the Series D Preferred Shares in cash prior to maturity, no assurance can be given that we would have the cash or financial resources available to us to make such a payment (or that we would be permitted to make such a payment under the terms of our indebtedness), and such an acceleration could have a material adverse effect on our business, results of operations and financial condition.

Under the Waiver Agreement, the holder of Series C Preferred Shares has waived its right to demand, require or otherwise receive payment, in cash, of any amount due and payable under the Series C Certificate of Designations. However, such waiver terminates upon the occurrence of a breach of the Waiver Agreement (following a five trading day cure period), the occurrence of a bankruptcy triggering event or a fundamental transaction (in each case as defined in the Series C Certificate of Designations), or the occurrence of certain other triggering events, including our failure to deliver freely tradable shares of common stock upon conversion of the Series C Preferred Shares, our suspension from trading, and our failure to timely deliver shares. Upon such an event, the holders of the Series C Preferred Shares may require us to redeem the Series C Preferred Shares, in cash, at a price equal to the greater of (i) 125% of the stated value of the Series C Preferred Shares being redeemed, plus accrued dividends, if any, and (ii) the market value of the number of shares issuable on conversion of the Series C Preferred Shares valued at the greatest closing sales price during the period from the date immediately before the triggering event through the date we make the redemption payment. If we were required to redeem the Series C Preferred Shares, no assurance can be given that we would have the cash or financial resources available to us to make such a payment (or that we would be permitted to make such a payment under the terms of our indebtedness), and such a redemption could have a material adverse effect on our business, results of operations and financial condition.

The Series B Preferred Stock, Series C Preferred Shares and Series D Preferred Shares rank senior to our common stock with respect to payments upon liquidation, dividends, and distributions.

The rights of the holders of the Series B Preferred Stock, Series C Preferred Shares and Series D Preferred Shares rank senior to the obligations to our common stockholders. Upon our liquidation, the holders of Series B Preferred Stock are entitled to receive \$1,000.00 per share plus all accumulated and unpaid dividends. Until the holders of Series B Preferred Stock receive their Liquidation Preference in full, no payment will be made on any junior shares, including our Series C Preferred Shares, our Series D Preferred Shares, and shares of our common stock. Upon our liquidation, the holders of Series C Preferred Shares are entitled to receive an amount per Series C Preferred Share equal to the greater of (A) the stated value thereof on the date of such payment, plus accrued dividends, if any and (B) the amount per share such holder would receive if such holder converted such Series C Preferred Shares into common stock immediately prior to the date of such payment. Upon our liquidation, the holders of Series D Preferred Shares are entitled to receive an amount per Series D Preferred Share equal to the greater of (A) the stated value thereof on the date of such payment, plus accrued dividends, if any and (B) the amount per share such holder would receive if such holder converted such Series D Preferred Shares into common stock.

immediately prior to the date of such payment. Further, the holders of Series C Preferred Shares and Series D Preferred Shares have the right to participate in any payment of dividends or other distributions made to the holders of common stock to the same extent as if they had converted such preferred shares. The existence of senior securities such as the Series B Preferred Stock, Series C Preferred Shares and Series D Preferred Shares could have an adverse effect on the value of our common stock.

Holders of the Series C Preferred Shares and Series D Preferred Shares have rights that may restrict our ability to operate our business.

Under the Series C Certificate of Designation and Series D Certificate of Designation, we are subject to certain covenants that limit our ability to create new series of preferred stock, other than series junior to the Series C Preferred Shares and Series D Preferred Shares with redemption occurring after the maturity date of the Series C Preferred Shares and Series D Preferred Shares, and our ability to incur certain indebtedness. Such restrictions may have an adverse effect on our ability to operate our business while the Series C Preferred Shares and Series D Preferred Shares are outstanding.

Our common stockholders may experience significant dilution upon the issuance of common stock upon conversion of or redemption payments under the Series C Preferred Shares and Series D Preferred Shares.

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series C Preferred Shares and/or Series D Preferred Shares will dilute the ownership interests of existing holders of shares of our common stock. As of January 31, 2019, the aggregate outstanding liquidation preference of the Series C Preferred Shares totaled \$7.5 million. If this amount was converted into our common stock at the adjusted conversion price in effect as of January 31, 2019 of \$0.43, we would have issued 17,211,968 shares of common stock upon conversion (without giving effect to any limitation on conversions). This excludes the effect of any common stock we may issue in lieu of paying bimonthly redemption amounts in cash, which may be made at a price lower than the conversion price. The conversion price of the Series C Preferred Shares is adjustable in the event we effect a stock split, combination or similar transaction, to reflect the proportionate (adjusted) trading prices of our common stock before and after the effective date, and is subject to adjustment as described in the Waiver Agreement.

As of January 31, 2019, the aggregate outstanding liquidation preference of the Series D Preferred Shares totaled \$25.4 million. If this amount was converted into our common stock at its initial conversion price, we would have issued 18,424,965 shares of common stock upon conversion (without giving effect to any limitation on conversions). This excludes the effect of any common stock we may issue in lieu of paying bimonthly redemption amounts in cash, which may be made at a price lower than the initial conversion price. The initial conversion price of the Series D Preferred Shares is adjustable based on certain events, including in the event of a triggering event (as defined in the Series D Certificate of Designation), in the event we effect a stock split, combination or similar transaction, to reflect the proportionate (adjusted) trading prices of our common stock before and after the effective date, in the event we issue shares pursuant to our Sales Agreement with B. Riley FBR, Inc. and Oppenheimer & Co., Inc. dated June 13, 2018, and in the event we issue any securities that are deemed variable price securities (as defined in the Series D Certificate of Designation).

If we do not meet the continued listing standards of The Nasdaq Global Market, our common stock could be delisted from trading, which could limit investors' ability to make transactions in our common stock and subject us to additional trading restrictions.

Our common stock is listed on The Nasdaq Global Market, which imposes continued listing requirements with respect to listed shares. On November 28, 2018, we received a letter from The Nasdaq Stock Market ("Nasdaq") stating that we are not in compliance with Nasdaq Listing Rule 5450(a)(1) because the closing bid price of our common stock was below the required minimum of \$1.00 per share for the previous 30 consecutive business days. In accordance with Nasdaq Listing Rules, we have a period of 180 calendar days, or until May 28, 2019, to regain compliance with the minimum bid price requirement. If at any time before May 28, 2019 the closing bid price of our common stock is at least \$1.00 per share for a minimum of 10 consecutive business days, Nasdaq will provide us with written confirmation that we have regained compliance with the minimum bid price requirement and this matter will be closed. We have notified Nasdaq of our intention to regain compliance with the Nasdaq minimum bid price requirement. If we are unable to demonstrate compliance with Rule 5450(a)(1) by May 28, 2019, we can submit an application to transfer our securities to The Nasdaq Capital Market and request an additional 180-day period to regain compliance with the minimum bid price requirement.

There can be no assurance, however, that we will be able to regain compliance with the minimum bid price requirement or that we will otherwise be in compliance with other Nasdaq listing criteria. If we fail to regain and maintain compliance with the minimum bid requirement or to meet the other applicable continued listing requirements in the future and Nasdaq determines to delist our common stock, the delisting could adversely affect the market price and liquidity of our common stock, reduce our ability to raise additional capital, and result in a triggering event under the Series C Certificate of Designations and the Series D Certificate of Designation.

Item 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

- (a) None.
- (b) Not applicable.
- (c) Stock Repurchases

The following table sets forth information with respect to purchases made by us or on our behalf of our common stock during the periods indicated:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
November 1, 2018 – November 30, 2018	—	\$ —	—	—
December 1, 2018 – December 31, 2018	—	\$ —	—	—
January 1, 2019 – January 31, 2019	970	\$ 0.57	—	—
Total	970	\$ 0.57	—	—

- (1) Includes only shares that were surrendered by employees to satisfy statutory tax withholding obligations in connection with the vesting of stock-based compensation awards.

Item 3. DEFAULT UPON SENIOR SECURITIES

None.

Item 4. MINE SAFETY DISCLOSURES

None.

Item 5. OTHER INFORMATION

- (a) None.
- (b) None.

Item 6. EXHIBITS

Exhibit No.	Description
10.1	<u>Second Amendment to Assistance Agreement, dated as of January 24, 2019, and approved by the State of Connecticut, Office of the Attorney General on January 28, 2019 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 5, 2019).</u>
10.2	<u>Waiver Agreement, dated February 21, 2019, by and between FuelCell Energy, Inc. and the Sole Holder of Series C Convertible Preferred Stock (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on February 21, 2019).</u>
10.3	<u>Exchange Agreement, dated February 21, 2019, by and between FuelCell Energy, Inc. and the Holder of the Series A Warrant to Purchase Common Stock, issued on July 12, 2016 (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on February 21, 2019).</u>
10.4	<u>Form of Consent and Waiver, dated February 21, 2019, by and between FuelCell Energy, Inc. and each Holder of Series D Convertible Preferred Stock (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on February 21, 2019).</u>
10.5	<u>Construction Loan Agreement, dated as of February 28, 2019, by and between Groton Station Fuel Cell, LLC and Fifth Third Bank (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on March 5, 2019).</u>
10.6	<u>Guaranty Agreement, dated as of February 28, 2019, by FuelCell Energy, Inc. in favor of Fifth Third Bank (incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on March 5, 2019).</u>
10.7	<u>Sixth Amendment to Loan and Security Agreement, dated February 28, 2019 and effective as of February 22, 2019, by and among FuelCell Energy, Inc., Versa Power Systems, Inc., Versa Power Systems Ltd., Hercules Capital, Inc. and Hercules Funding II, LLC (incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed on March 5, 2019).</u>
31.1	<u>Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
31.2	<u>Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
32.1	<u>Certification of Chief Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
32.2	<u>Certification of Chief Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Schema Document
101.CAL	XBRL Calculation Linkbase Document
101.LAB	XBRL Labels Linkbase Document
101.PRE	XBRL Presentation Linkbase Document
101.DEF	XBRL Definition Linkbase Document

SIGNATURE

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

FUELCELL ENERGY, INC.
(Registrant)

March 7, 2019

Date

/s/ Michael S. Bishop

Michael S. Bishop

Senior Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer and Principal Accounting Officer)

CERTIFICATION

I, Arthur A. Bottone, certify that:

1. I have reviewed this quarterly report on Form 10-Q of FuelCell Energy, 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 registrant's board of directors (or persons performing the equivalent function):
 - (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.

March 7, 2019

/s/ Arthur A. Bottone

Arthur A. Bottone
President and Chief Executive Officer
(Principal Executive Officer)

CERTIFICATION

I, Michael Bishop, certify that:

1. I have reviewed this quarterly report on Form 10-Q of FuelCell Energy, 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 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 registrant's board of directors (or persons performing the equivalent function):
 - (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.

March 7, 2019

/s/ Michael S. Bishop

Michael S. Bishop
Senior Vice President, Chief Financial Officer and Treasurer
(Principle Financial Officer and Principle Accounting Officer)

**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 FuelCell Energy, Inc. (the "Company") on Form 10-Q for the quarter ended January 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Arthur A. Bottone, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 7, 2019

/s/ Arthur A. Bottone

Arthur A. Bottone
President and Chief Executive Officer
(Principal Executive Officer)

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.

**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 FuelCell Energy, Inc. (the "Company") on Form 10-Q for the quarter ended January 31, 2019 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Michael Bishop, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C 78m or 78o(d)); and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 7, 2019

/s/ Michael S. Bishop

Michael S. Bishop
Senior Vice President, Chief Financial Officer and Treasurer
(Principal Financial Officer and Principal Accounting Officer)

A signed original of this written statement has been provided to the Company and will be retained by the Company and furnished to the SEC or its staff upon request.