

FUELCELL ENERGY INC

Form 424B5

August 27, 2018

TABLE OF CONTENTS

Filed Pursuant to Rule 424(b)(5)

Registration No. 333-226792

PROSPECTUS SUPPLEMENT

(To Prospectus dated August 21, 2018)

30,680 Shares of Series D Convertible Preferred Stock

We are offering 30,680 shares of our Series D Convertible Preferred Stock, par value \$0.01 per share (the “Series D Preferred Shares”), initially convertible into 22,231,884 shares of our common stock, par value \$0.0001 per share (without regard to any limitation on conversion set forth in the Certificate of Designations establishing the terms of the Series D Preferred Shares). This prospectus also covers the shares of common stock issuable from time to time upon conversion or amortization of the Series D Preferred Shares.

Our common stock is traded on The Nasdaq Global Market under the symbol “FCEL.” On August 24, 2018, the last reported sale price of our common stock on The Nasdaq Global Market was \$1.15 per share. There is no established trading market for the Series D Preferred Shares, and we do not expect a market to develop. We do not intend to apply for a listing of the Series D Preferred Shares on any national securities exchange.

Investing in our common stock and the Series D Preferred Shares involves risk. You should read this prospectus supplement and the accompanying prospectus carefully before you make your investment decision. See “Risk Factors” beginning on page S-7 of this prospectus supplement and page 2 of the accompanying prospectus, as well as the documents we file with the Securities and Exchange Commission that are incorporated by reference herein and therein for more information.

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

	Per Series D Preferred Share	Total
Price to the public	\$ 880.0522	\$ 27,000,000
Underwriting discount and commission(1)	\$ 41.8025	\$ 1,282,500
Proceeds, before expenses, to us	\$ 838.2497	\$ 25,717,500

(1)

See “Underwriting” on page S-42 of this prospectus supplement for a complete description of compensation payable to the underwriters.

We expect that delivery of the Series D Preferred Shares being offered pursuant to this prospectus supplement and the accompanying prospectus will be made on or about August 29, 2018, subject to customary closing conditions.

Oppenheimer & Co.

The date of this prospectus supplement is August 27, 2018.

TABLE OF CONTENTS

TABLE OF CONTENTS

Prospectus Supplement

	Page
<u>About This Prospectus Supplement</u>	<u>S-1</u>
<u>Cautionary Statement</u>	
<u>Regarding Forward-Looking</u>	<u>S-2</u>
<u>Statements</u>	
<u>Prospectus Supplement Summary</u>	<u>S-3</u>
<u>The Offering</u>	<u>S-5</u>
<u>Risk Factors</u>	<u>S-7</u>
<u>Description Of Capital Stock</u>	<u>S-27</u>
<u>Description Of Series D</u>	
<u>Convertible Preferred Stock</u>	<u>S-37</u>
<u>Use Of Proceeds</u>	<u>S-41</u>
<u>Price Range Of Common Stock</u>	<u>S-41</u>
<u>Underwriting</u>	<u>S-42</u>
<u>Legal Matters</u>	<u>S-43</u>
<u>Experts</u>	<u>S-43</u>
<u>Where You Can Find More Information</u>	<u>S-43</u>
<u>Form Of Certificate Of</u>	
<u>Designations, Preferences</u>	
<u>And Rights Of The Series D</u>	<u>A-1</u>
<u>Convertible Preferred Stock</u>	
<u>Of Fuelcell Energy, Inc.</u>	

PROSPECTUS

	Page
<u>About This Prospectus</u>	<u>1</u>
<u>Summary</u>	<u>1</u>
<u>Risk Factors</u>	<u>2</u>
<u>Special Note Regarding</u>	
<u>Forward-Looking Statements</u>	<u>19</u>
<u>Ratio of Earnings to Fixed Charges</u>	<u>19</u>
<u>Use of Proceeds</u>	<u>19</u>
<u>Securities We May Offer</u>	<u>20</u>
<u>Description of Common Stock</u>	<u>20</u>
<u>Description of Preferred Stock</u>	<u>21</u>
<u>Description of Debt Securities</u>	<u>29</u>
<u>Description of Warrants</u>	<u>39</u>
<u>Description of Units</u>	<u>41</u>
<u>Legal Ownership of Securities</u>	<u>42</u>
<u>Certain Provisions of Delaware</u>	
<u>Law, Our Charter, and</u>	<u>45</u>
<u>By-Laws</u>	

<u>Plan of Distribution</u>	<u>47</u>
<u>Legal Matters</u>	<u>49</u>
<u>EXPERTS</u>	<u>49</u>
<u>Where You Can Find More Information</u>	<u>50</u>
<u>Incorporation of Certain Documents by Reference</u>	<u>50</u>

S-i

---

## TABLE OF CONTENTS

### About This Prospectus Supplement

This document is in two parts. The first part is this prospectus supplement, which describes the specific terms of the securities we are offering. The second part is the accompanying prospectus, which gives more general information, some of which may not apply to this offering. This prospectus supplement and the information incorporated by reference in this prospectus supplement also may add to, update and change information contained in, or incorporated by reference into, the accompanying prospectus. To the extent there is a conflict between the information contained in this prospectus supplement or in any document incorporated by reference therein that was filed with the Securities and Exchange Commission (the “SEC”) before the date of this prospectus supplement, you should rely on the information in this prospectus supplement. If any statement in one of these documents is inconsistent with a statement in another document having a later date, for example, a document incorporated by reference in this prospectus supplement or the accompanying prospectus, the statement in the document having the later date modifies or supersedes the earlier statement.

The accompanying prospectus is part of a registration statement that we filed with the SEC using a shelf registration process. Under the shelf registration process, from time to time, we may offer and sell any of the securities described in the accompanying prospectus separately or together with other securities described therein.

You should read this prospectus supplement along with the accompanying prospectus, the documents incorporated by reference in this prospectus supplement and the accompanying prospectus and any related free writing prospectus that we authorized to be distributed to you carefully before you invest. These documents contain important information you should consider when making your investment decision. You should also read and consider the information in the documents to which we have referred you under “Where You Can Find More Information” on page S-43 of this prospectus supplement and on page 50 of the accompanying prospectus and under “Incorporation by Reference” on page 50 of the accompanying prospectus.

You should rely only on the information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus and any related free writing prospectus that we authorized to be distributed to you. We have not authorized anyone to provide you with different or additional information. If anyone provides you with different or additional information, you should not rely on it. Neither we nor anyone acting on our behalf is making an offer to sell these shares of securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information contained in this prospectus supplement, the accompanying prospectus, any related free writing prospectus that we have authorized to be delivered to you and the documents incorporated by reference herein and therein is accurate only as of their respective dates, regardless of the time of delivery of such documents or of any sale of securities. Our business, financial condition, results of operations and prospects may have changed since those dates. You should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the Series D Preferred Shares and the distribution of this prospectus outside the United States. Furthermore, you should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

For purposes of this prospectus supplement and the accompanying prospectus, references to “FuelCell,” “we,” “our” and “our company” are to FuelCell Energy, Inc. and not to our consolidated subsidiaries, unless otherwise indicated or the context otherwise requires.

S-1

---

TABLE OF CONTENTS

Cautionary Statement Regarding Forward-Looking Statements

This prospectus supplement and the accompanying prospectus, the documents incorporated by reference herein and therein and any related free writing prospectuses issued by us may contain forward-looking statements about our financial condition, results of operations, plans, objectives, future performance and business. Statements preceded by, followed by or that include words such as “expects,” “anticipates,” “estimates,” “projects,” “intends,” “plans,” “believes,” “pre-” “should,” “will,” “could,” “would,” “may,” “forecast,” and similar expressions are intended to identify some of the forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and are included, along with this statement, for purposes of complying with the safe harbor provisions of that Act. The realization of matters expressed in forward-looking statements involves risks and uncertainties. Our actual results may differ materially from those contemplated by the forward-looking statements due to, among other factors, the risks and uncertainties described in or incorporated by reference into this prospectus supplement, including under “Risk Factors,” and the accompanying prospectus. Any forward-looking statement contained in this prospectus supplement and the accompanying prospectus and the documents incorporated by reference herein and therein speaks only as of the date on which the statement was made, and we undertake no obligation to update publicly or revise any forward-looking statements for any reason, whether as a result of new information, future events or otherwise. New risks emerge from time to time, and we cannot predict all of the risks that may impact our business or the extent to which any particular risk, or combination of risks, may cause actual results to differ materially from those contained in any forward-looking statement.

S-2

---

## TABLE OF CONTENTS

### Prospectus Supplement Summary

The following summary highlights basic information about FuelCell and this offering. Because it is a summary, it does not contain all of the information that may be important to you. You should review this entire prospectus supplement and the accompanying prospectus carefully, including our consolidated financial statements and other information incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. In addition, please read the “Risk Factors” section beginning on page S-7 of this prospectus supplement and beginning on page 2 of the accompanying prospectus.

### Our Business

FuelCell 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, 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 7.5 million megawatt hours (MWh) of electricity.

We provide comprehensive turn-key power generation solutions to our customers, including installation of the power plants as well as operating and maintaining the plants under multi-year service agreements. We target large-scale power users with our megawatt-class installations. As a reference, one megawatt is adequate to continually power approximately 1,000 average sized U.S. homes. Our customer base includes utility companies, municipalities, universities, government entities and businesses in a variety of industrial and commercial enterprises. Our leading geographic markets are South Korea and the United States, and we are pursuing expanding opportunities in other countries in Asia and Europe.

Our value proposition is to enable economic value with clean and affordable fuel cell power plants that supply power where consumed. 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 oxides that cause smog, sulfur oxides that contribute 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.

Our products can also be configured for recovery and storage applications. We are developing advanced technologies which leverage our commercial platform and expertise. Our SureSource power plants utilize carbonate fuel cell technology, which is a very versatile type of fuel cell technology. Utilizing our core SureSource plants, we have developed and are commercializing both a tri-generation distributed hydrogen configuration that generates electricity, heat and hydrogen for industrial or transportation uses, and a carbon capture application for coal or gas-fired power plants. We also are developing and working to commercialize solid oxide fuel cells for adjacent sub-megawatt applications to the markets for our megawatt-class SureSource power plants as well as energy storage applications. These applications are complementary to our core products, leverage our existing customer base, project development, sales and service expertise, and are large markets.

S-3

---

TABLE OF CONTENTS

Corporate Information

Our principal executive offices are located at 3 Great Pasture Road, Danbury, Connecticut 06810. Our telephone number is (203) 825-6000. We maintain a web site at the following Internet address: [www.fuelcellenergy.com](http://www.fuelcellenergy.com). The information on, or that can be accessed through, our web site is not incorporated by reference in this prospectus supplement or in the accompanying prospectus, and you should not consider it to be a part of this prospectus supplement or the accompanying prospectus. Our web site address is included as an inactive textual reference only.

S-4

---

TABLE OF CONTENTS

The Offering

Issuer

FuelCell Energy, Inc.

Series D Preferred Shares offered by us

30,680 shares.

This prospectus also covers the shares of common stock issuable from time to time upon conversion or amortization of the Series D Preferred Shares.

Series D Preferred Shares maturity date

If not earlier fully converted or redeemed, the Series D Preferred Shares will mature on March 1, 2020, subject to extension in certain circumstances.

Description of Series D Preferred Shares

Each Series D Preferred Share has an initial stated value of \$1,000 per share, subject to adjustment as described herein. Series D Preferred Shares are convertible at a price equal to the "Conversion Price," as further described herein. The Conversion Price initially will be \$1.38 per share, subject to adjustment as described herein. The Series D Preferred Shares will also be subject to mandatory amortization as described herein.

See "Description of Series D Convertible Preferred Stock" on page S-37 of this prospectus supplement for additional information.

Series D Preferred Shares outstanding before this offering

None.

Series D Preferred Shares to be outstanding after this offering

30,680 shares.

Shares of common stock

outstanding as of July 31, 2018

92,280,169 shares.

Use of proceeds

We estimate that the net proceeds to us from this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$25.4 million. We intend to use the net proceeds from this offering for working capital, project financing, and general corporate purposes. See "Use of Proceeds" on page S-41 of this prospectus supplement for additional information.

The Nasdaq Global Market symbol

FCEL.

Risk factors

See "Risk Factors" beginning on page S-7 of this prospectus supplement and on page 2 of the accompanying prospectus for a discussion of factors you should consider carefully when making a decision to invest in the Series D Preferred Shares.

Ratio of earnings to combined fixed charges and preference dividends

The following table sets forth our ratio of earnings to combined fixed charges and preference stock dividends for the periods indicated. For purposes of this calculation, "earnings" consist of net loss before income taxes attributable to the Company, fixed charges and amortization of capitalized interest. Fixed charges consist of interest expense, capitalized interest, estimated interest

S-5

---



TABLE OF CONTENTS

expense within rental expense and preferred dividends. Earnings in each of the periods indicated were inadequate to cover fixed charges. The coverage deficiency for each period is specified below.

	Year ended October 31,					Six months ended
	2013	2014	2015	2016	2017	April 30, 2018
Coverage deficiency (in thousands)	\$ 37,232	\$ 40,807	\$ 32,559	\$ 54,785	\$ 57,218	\$ 21,993

The number of shares of common stock to be outstanding after this offering is based on 92,280,169 shares outstanding as of July 31, 2018, and excludes:

- approximately 454,043 shares of our common stock reserved for issuance upon conversion of shares of our 5% Series B Cumulative Convertible Perpetual Preferred Stock (“Series B Preferred Stock”);
- approximately 6,348,401 shares of our common stock reserved for issuance upon conversion of shares of our Series C Convertible Preferred Stock (“Series C Preferred Stock” and, such shares, the “Series C Preferred Shares”);
- 15,168 shares of our common stock reserved for issuance upon conversion of the Class A Cumulative Redeemable Exchangeable Preferred Shares (the “Series 1 Preferred Shares”) of FCE FuelCell Energy, Ltd., our Canadian subsidiary (“FCE Ltd.”);
- 323,533 shares of our common stock reserved for issuance upon the exercise of outstanding options under our equity incentive plans;
- 3,281,744 shares of our common stock reserved for issuance upon vesting of restricted stock units issued under our equity incentive plans;
- 1,394,365 shares of our common stock reserved for future issuance under our equity incentive plans;
- 500,000 shares of our common stock reserved for future issuance under our employee stock purchase plan; and
- 19,249,364 shares of our common stock reserved for issuance upon exercise of our outstanding warrants.

## TABLE OF CONTENTS

### Risk Factors

An investment in our securities involves a high degree of risk. You should carefully consider the specific risk factors discussed below and in the accompanying prospectus, as well as the risk factors set forth in the documents and reports filed with the SEC that are incorporated by reference herein and therein, before making an investment decision. If any such 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 and the value of the Series D Preferred Shares could decline, and you may lose all or part of your investment.

### Risks Related to this Offering and the Series D Preferred Shares

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

We have the obligation to make bimonthly redemption payments on the Series D Preferred Shares commencing December 1, 2018, which 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. 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. If we cannot satisfy the equity conditions, we will not be able to make 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 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 Certificate of Designations establishing the terms of the Series D Preferred Shares (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 redemption 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, and such an acceleration could have a material adverse effect on our business, results of operations and financial condition.

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

The rights of the holders of the Series D Preferred Shares rank equally with our Series C Preferred Shares and junior to our Series B Preferred Stock with respect to dividends, distributions and payments upon liquidation. 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. The existence of senior securities such as shares of our Series B Preferred Stock and pari passu securities such as the Series C Preferred Shares could have the effect of reducing the amounts available to

TABLE OF CONTENTS

the holders of Series D Preferred Shares upon our liquidation, dissolution or winding up of our affairs. It also may reduce dividend payments on our Series D Preferred Shares if we do not have sufficient funds to pay dividends on all Series D Preferred Shares, Series C Preferred Shares, Series B Preferred Stock and other classes of stock that may be issued with senior or equal priority with respect to dividends.

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

Under the 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 D Preferred Shares with redemption occurring after the maturity date of the 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 D Preferred Shares are outstanding.

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

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series D Preferred Shares will dilute the ownership interests of existing holders of shares of our common stock. If the initial aggregate stated value of the Series D Preferred Shares is converted into our common stock at its initial conversion price, we would issue 22,231,884 shares of common stock upon their 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 following the closing of this offering pursuant to our At Market Issuance 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).

The redemption right in the Series D Preferred Shares could discourage a potential acquirer.

The redemption rights in the Series D Preferred Shares could discourage a potential acquirer. The terms “change of control” and “fundamental transaction” refer to specific transactions and may not include other events that might adversely affect our financial condition or results of operations. Our obligation to redeem the Series D Preferred Shares upon a change of control would not necessarily afford you protection in the event of a highly leveraged transaction or a reorganization, merger or similar transaction involving us, for example where the holders of our voting power prior to the transaction hold, after the transaction, publicly traded shares and in all material respects are the holders of the voting power of the surviving entity.

The conversion rate of the Series D Preferred Shares may not be adjusted for all dilutive events.

The conversion rate of the Series D Preferred Shares is subject to adjustment for certain events, including, but not limited to, subdivisions or combinations of our shares of common stock, and voluntary reductions in the conversion price by us. However, the conversion rate will not be adjusted for other events, such as certain issuances of shares of our common stock at a fixed price below the conversion price of the Series D Preferred Shares. There can be no assurance that an event will not occur that is adverse to the interests of the holders and the value of the Series D Preferred Shares but does not result in an adjustment to the conversion rate.

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 as of the date of 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 agreed to file a proxy statement with the SEC for

S-8

---

**TABLE OF CONTENTS**

the purpose of having our stockholders vote on a proposal to approve such issuances (such approval, the “Requisite Stockholder Approval”), and further agreed to hold such stockholders’ meeting by no later than April 30, 2019. Our stockholders may reject such a proposal, which could impact your ability to convert your Series D Preferred Shares into common stock or for us to make payments in the form of common stock pursuant to the redemption provisions of the Series D Preferred Shares.

Management will have broad discretion as to the use of the proceeds of this offering.

We have not designated the amount of net proceeds we will receive from this offering for any particular purpose.

Accordingly, our management will have broad discretion as to the application of these net proceeds and could use them for purposes other than those contemplated at the time of this offering. Our stockholders may not agree with the manner in which our management chooses to allocate and spend the net proceeds.

**Risks Related to Our Business and Other Risks**

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 substantial 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 \$91.6 million as of April 30, 2018. This includes approximately \$46.4 million of debt at our project finance subsidiaries and \$45.2 million at the corporate level. The majority of our debt is long-term with \$10.1 million due within twelve months as of April 30, 2018. We also have approximately \$40 million of borrowing capacity under a revolving construction and term project financing facility. 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 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, our Loan and Security Agreement with Hercules Capital, Inc., as amended, contains a financial covenant whereby we are required to maintain an

S-9

---

TABLE OF CONTENTS

unrestricted cash balance in accounts subject to an account control agreement in favor of Hercules Capital, Inc. of 75% of the outstanding loan balance plus the amount of accounts payable not paid within 90 days of the invoice date. As of April 30, 2018, the outstanding loan balance under the Loan and Security Agreement, as amended, was \$26.8 million, including accretion of an end-of-term payment. In connection with the third amendment to the Loan and Security Agreement in March 2018, we drew a term loan advance of \$13.1 million, which resulted in an aggregate amount of outstanding term loan advances of \$25.0 million as of April 30, 2018.

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. Volatility of electricity and fuel prices may impact sales of our products and services in the markets in which we compete.

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 oil, gas or coal or local utility electricity costs. Significant decreases (or short term increases) in the price of these 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 our Company, our customers and our suppliers.

Financial market volatility can affect both 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 our 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 this, we often require substantial cash down payments in advance of delivery. Our growth strategy assumes that financing will be available for our 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 our 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 cause 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 and 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. This could have an adverse impact on our revenue and cash flow.

We have signed product sales contracts, engineering, procurement and construction contracts ("EPC"), power purchase agreements ("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

S-10

---

TABLE OF CONTENTS

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 stack 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 stack 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, labor and regulatory compliance, inability to obtain necessary permits, interconnections or other approvals on acceptable terms or on schedule and 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, and 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 the 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

S-11

---

TABLE OF CONTENTS

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 (LG/Rolls Royce partnership and 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, and 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.

S-12

---



TABLE OF CONTENTS

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, 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.

As our relationship with POSCO Energy Co., Ltd. (“POSCO Energy”) changes, we may not be able to succeed in our efforts to access the South Korean and Asian markets.

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 our Master Service Agreement with POSCO Energy. In March 2017, we entered into a memorandum of understanding (“MOU”) with POSCO

S-13

---

TABLE OF CONTENTS

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 and that it intends to exit the fuel cell business during 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. We cannot predict the outcome of any discussions with POSCO Energy, 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 mediation, arbitration, litigation or other proceedings with POSCO Energy. Any such proceedings could result in significant expense to us and adversely affect our business and financial condition, whether or not such proceedings are resolved in our favor. If we enter into new or amended agreements with POSCO Energy or any successor to POSCO Energy, those agreements may be on terms that are less favorable to us than our existing agreements. If our relationship with POSCO Energy ends, or continues on terms that are less favorable to us, our efforts to access the South Korean and Asian markets, which are complex markets, may not be successful or may be 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 earnings in our financial statements should we determine that our goodwill, other intangible assets (i.e., in process research and development (“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 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 April 30, 2018 and October 31, 2017 was \$55.3 million and \$74.5 million, respectively, which includes work in process inventory totaling \$35.9 million and \$54.4 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 onto 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.

S-14

---

TABLE OF CONTENTS

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 have 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.

We are, from time to time depending on our overall employee count, classified for government contracting as a "Large Business", which could adversely affect our rights to own future patents under Department of Energy ("DOE")-funded contracts.

We are, from time to time depending on our overall employee count, classified as a "large business" under DOE contracts. This allows us to own the patents that we develop under new DOE contracts if we obtain a waiver from the DOE. A "large business" under applicable government regulations generally consists of more than 500 employees averaged over a one year period. We will not own future patents we develop as a large business under new contracts, grants or cooperative agreements funded by the DOE, unless we obtain a patent waiver from the DOE. Should we not obtain a patent waiver and outright ownership, we would nevertheless retain exclusive rights to any such patents, so long as we continue to commercialize the technology covered by the patents.

S-15

---

## TABLE OF CONTENTS

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 July 31, 2018, we, excluding our subsidiaries, had 92 U.S. patents and 123 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 July 31, 2018, we also had 35 patent applications pending in the U.S. and 118 patent applications pending in other jurisdictions. Our U.S. patents will expire between 2018 and 2035, and the current average remaining life of our U.S. patents is approximately 8.8 years. Our subsidiary, Versa Power Systems, Ltd., as of July 31, 2018, had 35 U.S. patents and 75 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 6.1 years. As of July 31, 2018, Versa Power Systems, Ltd. also had three pending U.S. patent applications and 16 patent applications pending in other jurisdictions. In

S-16

---

TABLE OF CONTENTS

addition, our subsidiary, FuelCell Energy Solutions, GmbH, has license rights to use FuelCell Energy's carbonate fuel cell technology, and, as of July 31, 2018, had 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

TABLE OF CONTENTS

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.

We recently announced an increase in our annual production. 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.

Several U.S. states have created and adopted, or are in the process of creating, their own interconnection regulations covering both technical and financial requirements for interconnection to utility grids. Depending on the complexities of the requirements, installation of our systems may become burdened with additional costs that might have a negative impact on our ability to sell systems. The Institute of Electrical and Electronics Engineers has been working to create an interconnection standard addressing the technical requirements for distributed generation to interconnect to utility grids. Many parties are hopeful that this standard will be adopted nationally to help reduce the barriers to deployment of distributed generation such as fuel cells; however, this standard may not be adopted nationally thereby limiting the commercial prospects and profitability of our fuel cell systems.

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.

S-18

---

TABLE OF CONTENTS

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, 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.



TABLE OF CONTENTS

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. The terms and conditions of many of these relationships allow for termination by the third parties. Termination 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 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.

## TABLE OF CONTENTS

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 production, manufacturing, financial, logistics, sales, marketing and administrative functions. Additionally, we collect and store data that is sensitive to us. 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.



TABLE OF CONTENTS

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 may also adopt changes required by the Financial Accounting Standards Board and the 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 charter 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 FCE Ltd.'s Series 1 Preferred Shares, our Series B Preferred Stock, our Series C Preferred Shares, and our Series D Preferred Shares could make it more difficult or more expensive for a third party to acquire us.

S-22

---

TABLE OF CONTENTS

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.

S-23

---

**TABLE OF CONTENTS**

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 shall 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 \$1.30 (our common stock closing price on July 31, 2018), and an exchange rate of U.S. \$1.00 to Cdn. \$1.30 (exchange rate on July 31, 2018) at the time of conversion, we would be required to issue approximately 2,762,104 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.

S-24

---

TABLE OF CONTENTS

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

We have the obligation to make bimonthly redemption payments on the Series C Preferred Shares commencing on November 1, 2017. These mandatory redemption payments may 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. 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. If we cannot satisfy the equity conditions, we will not be able to make 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 C 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 C 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 C Preferred Shares to require us to redeem such 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. 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 Certificate of Designations for the Series C Preferred Shares and would also cause a failure of the equity conditions. Thus, if we fail to maintain trading or listing, as applicable, or if for any other reason we are required to repurchase the Series C 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, and such an acceleration 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.

S-25

---



TABLE OF CONTENTS

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

Under the Certificate of Designations establishing the terms of the Series C Preferred Shares, 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 with redemption occurring after the maturity date of the Series C 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 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.

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series C Preferred Shares will dilute the ownership interests of existing holders of shares of our common stock. As of July 31, 2018, the aggregate outstanding liquidation preference of the Series C Preferred Shares totaled \$11.7 million. If this amount was converted into our common stock at its initial conversion price of \$1.84, we would have issued 6,348,401 shares of common stock upon their conversion (without giving effect to any limitation on conversions). If this amount is converted into our common stock at the adjusted conversion price of \$1.50, which adjusted conversion price became effective on August 27, 2018 in connection with this offering (see “Description of Capital Stock — Preferred Stock — Series C Preferred Shares” for more detail), we would issue 7,787,372 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 based on certain events, including in the event of a triggering event and 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.

S-26

---

## TABLE OF CONTENTS

### Description Of Capital Stock

#### General

The following is a summary of the rights of our common stock and preferred stock (other than the rights of our Series D Preferred Shares, which are discussed under the section entitled “Description of Series D Convertible Preferred Stock”), and related provisions of our certificate of incorporation, as amended (the “Charter”), and our amended and restated by-laws (“By-laws”). This summary does not purport to be complete and is subject to, and qualified in its entirety by, the Charter (including the Certificates of Designation relating to our Series B Preferred Stock and Series C Preferred Stock) and the By-laws.

#### Authorized and Outstanding Capital Stock

Under the Charter, we are authorized to issue 225,000,000 shares of common stock, par value \$0.0001 per share, and 250,000 shares of preferred stock, par value \$0.01 per share, in one or more series designated by our board of directors, of which 105,875 shares of our preferred stock have been designated as 5% Series B Cumulative Convertible Perpetual Preferred Stock (which is referred to herein as Series B Preferred Stock) and 33,500 shares of our preferred stock have been designated as Series C Convertible Preferred Stock (which is referred to herein as the Series C Preferred Stock and the shares of such Series C Preferred Stock are referred to herein as the Series C Preferred Shares). In connection with this offering, our board of directors will designate 30,680 shares of preferred stock as Series D Convertible Preferred Stock, which is referred to herein as the Series D Preferred Stock, and issue such 30,680 shares of Series D Preferred Stock, which are referred to herein as the Series D Preferred Shares.

On July 31, 2018, 92,280,169 shares of our common stock, 64,020 shares of our Series B Preferred Stock, and 11,681 shares of our Series C Preferred Stock were issued and outstanding. No other shares of our preferred stock are issued and outstanding.

As of July 31, 2018, there were 1,000,000 Series 1 Preferred Shares of FCE Ltd. issued and outstanding, which are convertible into shares of our common stock. As of July 31, 2018, we were obligated, if and when the holder of the Series 1 Preferred Shares exercises its conversion rights, to issue approximately 15,168 shares of our common stock upon conversion of the Series 1 Preferred Shares.

In addition, as of July 31, 2018, there were outstanding options to purchase 323,533 shares of our common stock under our equity incentive plans, 3,281,744 shares of our common stock were reserved for issuance upon vesting of outstanding restricted stock units issued under our equity incentive plans, 1,394,365 shares of our common stock were reserved for future issuance under our equity incentive plans, 500,000 shares of our common stock were reserved for future issuance under our employee stock purchase plan, and 19,249,364 shares of our common stock were reserved for issuance upon exercise of outstanding warrants. As of July 31, 2018, there were 187 holders of record of our common stock.

As of July 31, 2018, we were obligated, if and when the holders exercise their conversion rights, to issue approximately 454,043 shares of our common stock upon conversion of the Series B Preferred Stock.

As of July 31, 2018, the aggregate liquidation preference of the outstanding Series C Preferred Shares totaled \$11.7 million. If this amount was converted into our common stock at the initial conversion price of \$1.84, we would have issued 6,348,401 shares of common stock upon conversion (without giving effect to any limitations on conversion). If this amount is converted into our common stock at the adjusted conversion price of \$1.50, which adjusted conversion price became effective on August 27, 2018 in connection with this offering (see “Preferred Stock — Series C Preferred Shares” below for more detail), we would issue 7,787,372 shares of common stock upon conversion (without giving effect to any limitation on conversions).

#### Common Stock

#### Voting Rights

The holders of our common stock have one vote per share. Holders of our common stock are not entitled to vote cumulatively for the election of directors. Generally, all matters to be voted on by stockholders (including the election of directors in uncontested elections) must be approved by a majority of the votes

TABLE OF CONTENTS

properly cast on the matter at a meeting at which a quorum is present, subject to any voting rights granted to holders of any then outstanding preferred stock. A plurality voting standard applies in contested director elections (i.e., when the number of nominees for election as directors exceeds the number of directors to be elected at such meeting).

Dividends

Holders of our common stock will share ratably in any dividends declared by the board of directors, subject to the preferential rights of any of our preferred stock then outstanding. Dividends consisting of shares of our common stock may be paid to holders of shares of our common stock. We have never paid a cash dividend on our common stock and do not anticipate paying any cash dividends on our common stock in the foreseeable future.

Certain Participation Rights

Under the terms set forth in the Securities Purchase Agreement, dated as of June 9, 2009, by and between us and POSCO Energy, and the Securities Purchase Agreement, dated as of April 30, 2012, by and between us and POSCO Energy, we granted POSCO Energy the right to receive notice of and to participate in any issuance of new equity securities by us, other than issuances as a dividend or distribution on outstanding securities, upon the conversion or exercise of outstanding securities, to employees, directors or consultants pursuant to certain plans or arrangements, pursuant to the acquisition of another corporation or its assets, or of up to \$5 million in securities to fund obligations to make cash dividends or interest payments on outstanding securities. Such participation rights give POSCO Energy the right to subscribe for and purchase its pro rata portion of such offered securities. The Company has received a waiver from POSCO Energy pursuant to which it has permanently waived such participation rights, provided that the restrictive legend is removed from POSCO Energy's shares of our common stock and such shares have been transferred to the brokerage account designated by POSCO Energy.

Other Rights

In the event of our liquidation, dissolution or winding up, after payment of liabilities and liquidation preferences on any of our preferred stock then outstanding, the holders of shares of our common stock are entitled to share ratably in all assets available for distribution. Holders of shares of our common stock (solely in their capacity as holders of shares of our common stock) have no preemptive rights or rights to convert their shares of our common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock.

Listing on The Nasdaq Global Market

Our common stock is listed on The Nasdaq Global Market under the symbol "FCEL".

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, New York, New York.

Preferred Stock

General

Under our Charter, our board of directors has the authority, without further stockholder action, to issue from time to time, preferred stock in one or more series and for such consideration as may be fixed from time to time by our board of directors. Our board of directors also has the authority to fix and determine, in the manner provided by law, the relative rights and preferences of the shares of any series so established, such as dividend and voting rights. Our Charter authorizes the issuance of 250,000 shares of preferred stock. Prior to the issuance of each series of preferred stock, our board of directors will adopt resolutions creating and designating the series as a series of preferred stock. Our board of directors may, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of our common stock and could have anti-takeover effects.

S-28

---

## TABLE OF CONTENTS

### Series B Preferred Stock

There are 105,875 shares of our Series B Preferred Stock authorized for issuance. As of July 31, 2018, there were 64,020 shares of Series B Preferred Stock issued and outstanding. The shares of our Series B Preferred Stock and the shares of our common stock issuable upon conversion of the shares of our Series B Preferred Stock are covered by a registration rights agreement. The following is a summary of certain provisions of our Series B Preferred Stock.

### Ranking

Shares of our Series B Preferred Stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- senior to shares of our Series C Preferred Stock;
- senior to the Series D Preferred Stock to be issued in this offering;
- junior to our debt obligations; and
- effectively junior to our subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

### Dividends

The Series B Preferred Stock pays cumulative annual dividends of \$50.00 per share which are payable quarterly in arrears on February 15, May 15, August 15 and November 15. Unpaid accumulated dividends do not bear interest. The dividend rate is subject to upward adjustment as set forth in the Certificate of Designation for the Series B Preferred Stock (the "Series B Certificate of Designation") if we fail to pay, or to set apart funds to pay, any quarterly dividend on the Series B Preferred Stock. The dividend rate is also subject to upward adjustment as set forth in the Registration Rights Agreement entered into with the initial purchasers of the Series B Preferred Stock (the "Registration Rights Agreement") if we fail to satisfy our registration obligations with respect to the Series B Preferred Stock (or the underlying common shares) under the Registration Rights Agreement.

No dividends or other distributions may be paid or set apart for payment on our common shares (other than a dividend payable solely in shares of a like or junior ranking) unless all accumulated and unpaid Series B Preferred Stock dividends have been paid or funds or shares of common stock have been set aside for payment of accumulated and unpaid Series B Preferred Stock dividends.

The dividend on the Series B Preferred Stock may be paid in cash; or at the option of the holder, in shares of our common stock, which will be registered pursuant to a registration statement to allow for the immediate sale of these common shares in the public market. Dividends of \$3.2 million were paid in each of the years ended October 31, 2017, 2016 and 2015. There were no cumulative unpaid dividends as of July 31, 2018.

### Liquidation

The holders of Series B Preferred Stock are entitled to receive, in the event that we are liquidated, dissolved or wound up, whether voluntarily or involuntarily, \$1,000.00 per share plus all accumulated and unpaid dividends to the date of that liquidation, dissolution, or winding up ("Liquidation Preference"). Until the holders of Series B Preferred Stock receive their Liquidation Preference in full, no payment will be made on any junior shares, including shares of our common stock. After the Liquidation Preference is paid in full, holders of the Series B Preferred Stock will not be entitled to receive any further distribution of our assets. As of July 31, 2018, the Series B Preferred Stock had a Liquidation Preference of \$64.0 million.

S-29

## TABLE OF CONTENTS

### Conversion Rights

Each share of 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 \$141.00 per share plus cash in lieu of fractional shares. The conversion rate is subject to adjustment upon the occurrence of certain events as described in the Series B Certificate of Designation. The conversion rate is not adjusted for accumulated and unpaid dividends. If converted, holders of Series B Preferred Stock do not receive a cash payment for all accumulated and unpaid dividends; rather, all accumulated and unpaid dividends are canceled.

We may, at our option, cause shares of Series B Preferred Stock to be automatically converted into that number of shares of our common stock that are issuable at the then prevailing conversion rate. We may exercise our conversion right only if the closing price of our common stock exceeds 150% of the then prevailing conversion price (\$141.00 per share as of July 31, 2018) for 20 trading days during any consecutive 30 trading day period, as described in the Series B Certificate of Designation.

### Redemption

We do not have the option to redeem the shares of Series B Preferred Stock. However, holders of the Series B Preferred Stock can require us to redeem all or part of their shares at a redemption price equal to the Liquidation Preference of the shares to be redeemed in the case of a “fundamental change” (as described in the Series B Certificate of Designation). A fundamental change will be deemed to have occurred if any of the following occurs:

- any “person” or “group” is or becomes the beneficial owner, directly or indirectly, of 50% or more of the total voting power of all classes of our capital stock then outstanding and normally entitled to vote in the election of directors;
- during any period of two consecutive years, individuals who at the beginning of such period constituted the board of directors (together with any new directors whose election by our board of directors or whose nomination for election by our shareholders was approved by a vote of two-thirds of our directors then still in office who were either directors at the beginning of such period or whose election of nomination for election was previously so approved) cease for any reason to constitute a majority of our directors then in office;
- the termination of trading of our common stock on The Nasdaq Stock Market and such shares are not approved for trading or quoted on any other U.S. securities exchange; or
- we consolidate with or merge with or into another person or another person merges with or into us or the sale, assignment, transfer, lease, conveyance or other disposition of all or substantially all of our assets and certain of our subsidiaries, taken as a whole, to another person and, in the case of any such merger or consolidation, our securities that are outstanding immediately prior to such transaction and which represent 100% of the aggregate voting power of our voting stock are changed into or exchanged for cash, securities or property, unless pursuant to the transaction such securities are changed into securities of the surviving person that represent, immediately after such transaction, at least a majority of the aggregate voting power of the voting stock of the surviving person.

Notwithstanding the foregoing, holders of shares of Series B Preferred Stock will not have the right to require us to redeem their shares if:

- the last reported sale price of shares of our common stock for any five trading days within the 10 consecutive trading days ending immediately before the later of the fundamental change or its announcement equaled or exceeded 105% of the conversion price of the shares of Series B Preferred Stock immediately before the fundamental change or announcement;
-

at least 90% of the consideration (excluding cash payments for fractional shares) and, in respect of dissenters' appraisal rights, if the transaction constituting the fundamental change consists of shares of capital stock traded on a U.S. national securities exchange, or which will be so traded or quoted when issued or exchanged in connection with a fundamental change, and as a result of the transaction, shares of Series B Preferred Stock become convertible into such publicly traded securities; or

S-30

---

TABLE OF CONTENTS

•  
in the case of fundamental change event in the fourth bullet above, the transaction is affected solely to change our jurisdiction of incorporation.

We may, at our option, elect to pay the redemption price in cash or, in shares of our common stock valued at a discount of 5% from the market price of shares of our common stock, or any combination thereof. Notwithstanding the foregoing, we may only pay such redemption price in shares of our common stock that are registered under the Securities Act of 1933, as amended, or the Securities Act, and eligible for immediate sale in the public market by non-affiliates of the Company.

Voting Rights

Holders of Series B Preferred Stock currently have no voting rights; however, holders may receive certain voting rights, as described in the Series B Certificate of Designation, if (a) dividends on any shares of Series B Preferred Stock, or any other class or series of stock ranking on a parity with the Series B Preferred Stock with respect to the payment of dividends, shall be in arrears for dividend periods, whether or not consecutive, for six calendar quarters or (b) we fail to pay the redemption price, plus accrued and unpaid dividends, if any, on the redemption date for shares of Series B Preferred Stock following a fundamental change.

So long as any shares of Series B Preferred Stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of Series B Preferred Stock outstanding at the time (voting separately as a class with all other series of preferred stock, if any, on parity with our Series B Preferred Stock upon which like voting rights have been conferred and are exercisable) issue or increase the authorized amount of any class or series of shares ranking senior to the outstanding shares of the Series B Preferred Stock as to dividends or upon liquidation. In addition, we will not, subject to certain conditions, amend, alter or repeal provisions of our Charter, including the Series B Certificate of Designation, whether by merger, consolidation or otherwise, so as to adversely amend, alter or affect any power, preference or special right of the outstanding shares of Series B Preferred Stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding Series B Preferred Stock shares.

Series C Preferred Shares

We issued an aggregate of 33,500 shares of our Series C Preferred Stock, \$0.01 par value and \$1,000 stated value per share, for net proceeds of \$27.9 million on September 8, 2017. Each share of Series C Preferred Stock was sold at a price of \$895.52 for gross proceeds of approximately \$30.0 million. As of July 31, 2018, there were 11,681 shares of Series C Preferred Stock issued and outstanding.

The Series C Preferred Shares are convertible into shares of common stock, subject to the beneficial ownership limitations provided in the Certificate of Designations for the Series C Preferred Stock (the “Series C Certificate of Designations”), at a conversion price equal to \$1.50 per share of common stock (which adjusted conversion price, from the initial conversion price of \$1.84, became effective on August 27, 2018 in connection with this offering), subject to adjustment as provided in the Series C Certificate of Designations, including adjustments if we sell 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 volume weighted average price (“VWAP”) of the common stock of the five Trading Days (as such term is defined in the Series C Certificate of Designations) 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 us.

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, we will redeem the stated value of Series C Preferred Shares in thirty-three equal installments of \$1.0 million (each bimonthly amount, a “Series C Installment Amount” and the date of each such payment, a “Series C





TABLE OF CONTENTS

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 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, we 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 the Trading Day immediately prior to the applicable Series C Installment Date as applicable, provided that we meet standard equity conditions. We shall make such election no later than the eleventh trading day immediately prior to the applicable Series C Installment Date.

If we elect or are 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.

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 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.

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 we make the entire payment required.

In the event of the liquidation, dissolution, or winding up of our Company, 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.

Shares of Series C Preferred Stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- junior to our debt obligations;
- junior to our outstanding Series B Preferred Stock;
- pari passu to the Series D Preferred Stock to be issued in this offering; and
-

effectively junior to our subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

S-32

---

## TABLE OF CONTENTS

The holders of the Series C Preferred Shares have no voting rights, except as required by law; provided, however, that any amendment to our Charter or By-laws 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.

There is no established public trading market for the Series C Preferred Shares, and we do not expect a market to develop for the Series C Preferred Shares. The Series C Preferred Shares will not be listed on Nasdaq or any other exchange or trading market. We do not plan on making an application to list the Series C Preferred Shares on The Nasdaq Stock Market, any other national securities exchange or any other nationally recognized trading system. Until September 8, 2018, the holders of the Series C 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 us or our 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. In exchange for the waiver by the holders of the Series C Preferred Shares of their notice and participation rights under the Series C Certificate of Designations in connection with the issuance of the Series D Preferred Shares and their consent to the pari passu rank of the Series D Preferred Shares and the Series C Preferred Shares in respect of their preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company, our board of directors has agreed to reduce the conversion price of the Series C Preferred Shares from \$1.84 per share to \$1.50 per share effective August 27, 2018.

### Series 1 Preferred Shares

As of July 31, 2018, there were 1,000,000 Series 1 Preferred Shares of FCE Ltd. issued and outstanding, which are convertible into shares of our common stock. We have guaranteed the obligations of FCE Ltd. under the terms of the Series 1 Preferred Shares.

On March 31, 2011 and April 1, 2011, we entered into agreements with Enbridge, the sole holder of the Series 1 Preferred Shares, to modify the provisions of the Series 1 Preferred Shares. Consistent with the previous Series 1 Preferred Share agreement, we continue to guarantee the return of principal and dividend obligations of FCE Ltd. to the holders of Series 1 Preferred Shares under the modified agreement.

The terms of the Series 1 Preferred Shares require (a) annual dividend payments of Cdn. \$500,000 and (b) annual return of capital payments of Cdn. \$750,000. These payments commenced on March 31, 2011 and will end on December 31, 2020. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn. \$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% 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 shall 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.

In addition to the above, the significant terms of the Series 1 Preferred Shares include the following:

•

Voting Rights — The holders of the Series 1 Preferred Shares are not entitled to any voting rights.

•

Dividends — Dividend payments can be made in cash or in shares of our common stock, at the option of FCE Ltd., and if common stock is issued, such shares are not required to be registered under the Securities Act. If FCE Ltd. elects to make such payments by issuing shares of our common stock, the number of shares of common stock is determined by dividing the cash dividend obligation by 95% of the volume average price in U.S. dollars at which board lots of the common shares have been traded on Nasdaq during the 20 consecutive trading days preceding the end of the calendar quarter for which such dividend in common shares is to be paid, converted into Canadian dollars using the Bank of Canada's noon rate of exchange on the day of determination.



TABLE OF CONTENTS

- Redemption — The Series 1 Preferred Shares are redeemable by FCE Ltd. for Cdn. \$25.00 per share, less any amounts paid as a return of capital in respect of such share, plus all unpaid dividends and accrued interest. Holders of the Series 1 Preferred Shares do not have any mandatory or conditional redemption rights.

- Liquidation or Dissolution — In the event of the liquidation or dissolution of FCE Ltd., the holders of Series 1 Preferred Shares will be entitled to receive Cdn. \$25.00 per share, less any amounts paid as a return of capital in respect of such shares, plus all unpaid dividends and accrued interest. We have guaranteed any liquidation obligations of FCE Ltd.

- Exchange Rights — A holder of Series 1 Preferred Shares has the right to exchange such shares for fully paid and non-assessable shares of our common stock at the following exchange prices:

- Cdn. \$1,664.52 per share of our common stock after July 31, 2015 until July 31, 2020; and

- at any time after July 31, 2020, at a price equal to 95% of the then current market price (in Cdn.\$) of shares of our common stock at the time of conversion.

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 \$1.30 (our common stock closing price on July 31, 2018) and an exchange rate of U.S. \$1.00 to Cdn. \$1.30 (exchange rate on July 31, 2018) at the time of conversion, we would be required to issue approximately 2,762,104 shares of our common stock.

Anti-Takeover Provisions

Provisions of our Charter and By-Laws

A number of provisions of our Charter and By-laws concern matters of corporate governance and the rights of stockholders. Some of these provisions, including, but not limited to, the inability of stockholders to take action by unanimous written consent, certain advance notice requirements for stockholder proposals and director nominations, supermajority voting provisions with respect to any amendment of voting rights provisions, the filling of vacancies on the board of directors by the affirmative vote of a majority of the remaining directors, and the ability of the board of directors to issue shares of preferred stock and to set the voting rights, preferences and other terms thereof, without further stockholder action, may be deemed to have anti-takeover effect and may discourage takeover attempts not first approved by the board of directors, including takeovers which stockholders may deem to be in their best interests. If takeover attempts are discouraged, temporary fluctuations in the market price of shares of our common stock, which may result from actual or rumored takeover attempts, may be inhibited. These provisions, together with the ability of the board of directors to issue preferred stock without further stockholder action, could also delay or frustrate the removal of incumbent directors or the assumption of control by stockholders, even if the removal or assumption would be beneficial to our stockholders. These provisions could also discourage or inhibit a merger, tender offer or proxy contest, even if favorable to the interests of stockholders, and could depress the market price of our common stock. The board of directors believes these provisions are appropriate to protect our interests and the interests of our stockholders. The board of directors has no present plans to adopt any further measures or devices which may be deemed to have an “anti-takeover effect.”

Delaware Anti-Takeover Provisions

We are subject to Section 203 of the Delaware General Corporation Law (“DGCL”), which prohibits a publicly-held Delaware corporation from engaging in a “business combination,” except under certain circumstances, with an “interested stockholder” for a period of three years following the date such person became an “interested stockholder” unless:

before such person became an interested stockholder, the board of directors of the corporation approved either the business combination or the transaction that resulted in the interested stockholder becoming an interested stockholder;

S-34

---

TABLE OF CONTENTS

- upon the consummation of the transaction that resulted in the interested stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares held by directors who are also officers of the corporation and shares held by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

- at or following the time such person became an interested stockholder, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders (and not by written consent) by the affirmative vote of the holders of at least 66<sup>2</sup>/<sub>3</sub>% of the outstanding voting stock of the corporation which is not owned by the interested stockholder.

The term “interested stockholder” generally is defined as a person who, together with affiliates and associates, owns, or, within the three years prior to the determination of interested stockholder status, owned, 15% or more of a corporation’s outstanding voting stock. The term “business combination” includes mergers, asset or stock sales and other similar transactions resulting in a financial benefit to an interested stockholder. Section 203 makes it more difficult for an “interested stockholder” to effect various business combinations with a corporation for a three-year period. The existence of this provision would be expected to have an anti-takeover effect with respect to transactions not approved in advance by the board of directors, including discouraging attempts that might result in a premium over the market price for the shares of our common stock held by stockholders. A Delaware corporation may “opt out” of Section 203 with an express provision in its original Charter or any amendment thereto. Our Charter does not contain any such exclusion.

Exclusive Forum

The By-laws provide that unless we consent in writing to an alternative forum, a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of us; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers or other employees or our stockholders; (iii) any action asserting a claim against us or any of our directors or officers or other employees arising pursuant to any provision of the DGCL or our Charter or the By-laws (as either may be amended from time to time), or (iv) any action asserting a claim against us or any of our directors or other officers or other employees governed by the internal affairs doctrine.

Limitations of Directors’ Liability

Our Charter provides that none of our directors will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability:

- for any breach of the director’s duty of loyalty to us or our stockholders;

- for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;

- under Section 174 of the DGCL; or

- for any transaction from which the director derived an improper personal benefit.

The effect of these provisions is to eliminate our rights and the rights of our stockholders (through stockholders’ derivative suits on behalf of us) to recover monetary damages against a director for breach of fiduciary duty as a director (including breaches resulting from grossly negligent behavior), except in the situations described above.

These provisions do not limit the liability of directors under federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission based upon a director's breach of his duty of care.

S-35

---



TABLE OF CONTENTS

Disclosure of SEC Position on Indemnification for Securities Act Liabilities

Our Charter provides that none of our directors will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. Our By-laws provide for indemnification of our officers and directors to the fullest extent permitted by applicable law. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or controlling persons of the Company pursuant to the Charter, By-laws or applicable law, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

S-36

---

## TABLE OF CONTENTS

### Description Of Series D Convertible Preferred Stock

The following summary of the material terms and provisions of the Series D Preferred Stock does not purport to be complete and is subject to our Charter, including the terms and provisions set forth in the Series D Certificate of Designation, the form of which is attached hereto as Annex A.

#### General

In this offering, we are offering 30,680 shares of Series D Preferred Stock. This prospectus also covers the shares of common stock issuable from time to time upon conversion or amortization of the Series D Preferred Shares.

The material terms and provisions of our common stock and each other class of our securities existing on or prior to the date of this prospectus supplement which may qualify or limit the rights and privileges of our common stock are described under the caption "Description of Capital Stock."

#### Conversion Right

The Series D Preferred Shares are convertible into shares of 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 ("Conversion Price"), subject to adjustment as provided in the Series D Certificate of Designation, including adjustments if we sell 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 will be 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 us. Additionally, prior to the Requisite Stockholder Approval, the holders will be prohibited from converting Series D Preferred Shares into shares of common stock if such conversion would cause us 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 our obligations under the rules or regulations of Nasdaq.

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

- 

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.

- 

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. Following the closing of this offering, sales of common stock pursuant to our 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.

S-37

---

## TABLE OF CONTENTS

### 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 Series D Preferred Shares are convertible into shares of common stock at a conversion price equal to the lower of the 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;
- our failure to timely deliver shares;
- the suspension of our 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 (as such term is defined in the Series D Certificate of Designation);
- subject to limited exceptions, our failure 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

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 “Maturity Date”), inclusive, we will redeem the stated value of Series D Preferred Stock in thirty-one equal installments of approximately \$989,677 (each bimonthly amount, an “Installment Amount” and the date of each such payment, an “Installment Date”). The holders will have the ability to defer installment payments, but not beyond the Maturity Date. In addition, during each period commencing on the 11th trading day prior to an Installment Date and prior to the immediately subsequent 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 Installment Amounts, or (b) the number of Series D Preferred Shares subject to prior accelerations exceeds in the aggregate twelve Installment Amounts.

Subject to the requirements of Nasdaq Listing Rule 5635(d) and certain other equity conditions set forth in the Series D Certificate of Designation, we may elect to pay the Installment Amounts in cash or shares of common stock or in a combination of cash and shares of common stock.

Installment Amounts paid in shares will be that number of shares of common stock equal to (a) the applicable 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 VWAP of the common stock on the Trading Day immediately prior to the applicable 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 Installment Date as applicable, provided that we meet standard equity conditions. We shall make such election no later than the eleventh trading day immediately prior to the applicable Installment Date.

If we elect or are required to pay an Installment Amount in whole or in part in cash, the amount paid will be equal to 108% of the applicable Installment Amount.

S-38

---

## TABLE OF CONTENTS

### Redemption Upon a Triggering Event

In the event of a triggering event (as defined in the Series D Certificate of Designation and summarized above under “Conversion Upon a Triggering Event”), the holders of Series D Preferred Shares may require us 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 we make 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 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 our 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, 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 our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- junior to our debt obligations;
- junior to our outstanding Series B Preferred Stock;

TABLE OF CONTENTS

- pari passu to our outstanding Series C Preferred Stock; and

- effectively junior to our 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 our Charter or By-laws 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.

No Established Trading Market

There is no established public trading market for the Series D Preferred Stock, and we do not expect a market to develop for the Series D Preferred Stock. The Series D Preferred Stock will not be listed on Nasdaq or any other exchange or trading market. We do not plan on making an application to list the Series D Preferred Stock on The Nasdaq Stock Market, any other national securities exchange or any other nationally recognized trading system.

Transfer Agent and Registrar

The transfer agent and registrar for our Series D Preferred Stock will be American Stock Transfer & Trust Company, New York, New York.

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 us or our 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.

S-40

---

TABLE OF CONTENTS

## Use Of Proceeds

We estimate that the net proceeds to us from our sale of 30,680 Series D Preferred Shares in this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, will be approximately \$25.4 million.

We currently intend to use the net proceeds of this offering for working capital, project financing, and general corporate purposes. Our management will have broad discretion in the allocation of the net proceeds of this offering for any purpose, and investors will be relying on the judgment of our management with regard to the use of these net proceeds.

## Price Range Of Common Stock

The following table shows the high and low sales prices for our common stock as reported on The Nasdaq Global Market for the periods indicated. Our common stock trades on The Nasdaq Global Market under the symbol "FCEL".

	High	Low
Fiscal Year Ended October 31, 2016		
First Quarter	\$ 12.24	\$ 4.51
Second Quarter	8.08	4.56
Third Quarter	8.88	5.02
Fourth Quarter	5.67	3.35
Fiscal Year Ended October 31, 2017		
First Quarter	\$ 3.40	\$ 1.40
Second Quarter	1.98	1.00
Third Quarter	1.79	0.80
Fourth Quarter	2.49	1.33
Fiscal Year Ending October 31, 2018		
First Quarter	\$ 2.31	\$ 1.50
Second Quarter	2.11	1.45
Third Quarter	1.99	1.25
Fourth Quarter (through August 24, 2018)	1.33	1.00

As of July 31, 2018, there were 187 holders of record of our common stock.

S-41

---



TABLE OF CONTENTS

## Underwriting

We intend to enter into an underwriting agreement with Oppenheimer & Co. Inc. as underwriter.

The underwriting agreement will provide for the purchase of a specific number of Series D Preferred Shares by the underwriter. Subject to the terms and conditions of the underwriting agreement, the underwriter will purchase 30,680 Series D Preferred Shares.

The underwriter will purchase all of the Series D Preferred Shares offered by this prospectus supplement, if any are purchased.

The Series D Preferred Shares should be ready for delivery on or about August 29, 2018 against payment in immediately available funds. The underwriter will offer the Series D Preferred Shares subject to various conditions and may reject all or part of any order. The underwriter has advised us that it proposes to offer the Series D Preferred Shares directly to the public at the public offering price that appears on the cover page of this prospectus supplement. After the Series D Preferred Shares are released for sale to the public, the underwriter may change the offering price and other selling terms at various times.

The following table provides information regarding the amount of the discount to be paid to the underwriter by us:

	Discount
Per Series D Preferred Share	\$ 41.8025
Total	\$ 1,282,500

We estimate that our total expenses of the offering, excluding the underwriting discount, will be approximately \$335,000, which includes approximately \$5,000 in expenses expected to be reimbursed to the underwriter by us for fees incurred in connection with the offering.

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act. We and our executive officers and directors have agreed to a 60-day “lock up” with respect to shares of common stock that we may offer or issue or they beneficially own, including securities that are convertible into shares of common stock and securities that are exchangeable or exercisable for shares of common stock. This means that, subject to certain exceptions, for a period of 60 days following the date of this prospectus supplement, we and such persons may not offer, sell, pledge or otherwise dispose of these securities without the prior written consent of Oppenheimer & Co. Inc.

In order to facilitate this offering, the underwriter may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. The underwriter may bid for, and purchase, shares of common stock in the open market to stabilize the price of the common stock. These activities may raise or maintain the market price of the common stock above independent market levels or prevent or retard a decline in the market price of the common stock. The underwriter is not required to engage in these activities and may end any of these activities at any time. The underwriter has in the past, and may in the future, provide us and our affiliates with investment banking and financial advisory services for which it may in the future receive customary fees. In addition, in June 2018, we entered into an At Market Issuance Sales Agreement with the underwriter and B. Riley FBR, Inc., as sales agents, pursuant to which we may sell, through the sales agents, up to \$50,000,000 of our common stock. Sales have been made from time to time since June 2018 under the Sales Agreement. Under the Sales Agreement, the sales agent making the sales will be entitled to a commission in an amount equal to 3.0% of the gross proceeds from such sales.

Electronic Delivery of Prospectus Supplements: This prospectus supplement and the accompanying prospectus in electronic format may be delivered to potential investors by the underwriters participating in this offering. The prospectus supplement and the accompanying prospectus in electronic format will be identical to the paper version of such prospectus supplement and accompanying prospectus. Other than the prospectus supplement and the accompanying prospectus in electronic format, the information on the

S-42

TABLE OF CONTENTS

underwriters' web sites and any information contained on any other web site maintained by the underwriters is not part of the prospectus supplement, the accompanying prospectus or the registration statement of which this prospectus supplement and the accompanying prospectus form a part.

Investors are advised to contact their legal, financial or tax advisers to obtain an independent assessment of the financial and tax consequences of an investment in the Series D Preferred Shares.

Legal Matters

The validity of the securities being offered hereby will be passed upon for us by Foley & Lardner LLP, Boston, Massachusetts. Proskauer Rose LLP, New York, New York, is acting as counsel for the underwriter in connection with this offering.

Experts

The consolidated financial statements of FuelCell Energy, Inc. and subsidiaries as of October 31, 2017 and 2016, and for each of the years in the three-year period ended October 31, 2017, and management's assessment of the effectiveness of internal control over financial reporting as of October 31, 2017 have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

Where You Can Find More Information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's Public Reference Room in Washington, D.C. located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. The SEC maintains an Internet site at <http://www.sec.gov> which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. Our SEC filings are available to the public from the SEC's Internet site.

This prospectus supplement and the accompany prospectus are part of a registration statement that we have filed with the SEC relating to the securities to be offered. This prospectus supplement and the accompanying prospectus do not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules in accordance with the rules and regulations of the SEC, and we refer you to the omitted information. The statements this prospectus supplement makes pertaining to the content of any contract, agreement or other document that is an exhibit to the registration statement necessarily are summaries of their material provisions and do not describe all provisions, exceptions and qualifications contained in those contracts, agreements or documents. You should read those contracts, agreements or documents for information that may be important to you. The registration statement, exhibits and schedules are available at the SEC's Public Reference Room or through its Internet site.

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus supplement is considered to be part of this prospectus supplement. Because we are incorporating by reference future filings with the SEC, this prospectus supplement is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any document previously incorporated by reference have been modified or superseded. This prospectus supplement incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) after the initial filing of the registration statement of which this prospectus supplement is a part and until we terminate the offering:

S-43

---

TABLE OF CONTENTS

- our Annual Report on Form 10-K for the fiscal year ended October 31, 2017 filed with the SEC on January 11, 2018, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement for the 2018 Annual Meeting of Stockholders;

- our Quarterly Reports on Form 10-Q for the quarterly periods ended January 31, 2018 and April 30, 2018, filed with the SEC on March 8, 2018 and June 7, 2018, respectively;

- our Current Reports on Form 8-K filed with the SEC on November 1, 2017, December 15, 2017, April 2, 2018, April 6, 2018, June 13, 2018 and June 20, 2018; and

- the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on June 6, 2000, including any amendments or reports filed for the purposes of updating this description.

Notwithstanding the foregoing, information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K, including the related exhibits under Item 9.01, is not incorporated by reference in this prospectus supplement.

You may request a copy of any or all of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

FuelCell Energy, Inc.

Attention: Corporate Secretary

3 Great Pasture Road

Danbury, Connecticut 06810

Telephone: (203) 825-6000

You should rely only on the information contained in this prospectus supplement, including information incorporated by reference herein as described above, the accompanying prospectus (including information incorporated by reference therein) and any “free writing prospectus” that we may authorize to be delivered to you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should not assume that the information in this prospectus supplement or the accompanying prospectus is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus supplement or the accompanying prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

S-44

---

TABLE OF CONTENTS

Annex A

FORM OF CERTIFICATE OF DESIGNATIONS, PREFERENCES AND RIGHTS OF THE  
SERIES D CONVERTIBLE PREFERRED STOCK OF  
FUELCELL ENERGY, INC.

FuelCell Energy, Inc. (the “Company”), a corporation incorporated and existing under the General Corporation Law of the State of Delaware (the “DGCL”) does hereby certify:

That pursuant to the authority expressly conferred upon the Board of Directors of the Company (the “Board”) by the Company’s Certificate of Incorporation, as amended (the “Certificate of Incorporation”), and Section 151(g) of the DGCL, the Board on August 26, 2018 adopted the following resolution determining it desirable and in the best interests of the Company and its stockholders for the Company to create a series of thirty thousand six hundred eighty (30,680) shares of preferred stock designated as “Series D Convertible Preferred Stock”, none of which shares have been issued:

RESOLVED, that pursuant to the authority vested in the Board, in accordance with the provisions of the Certificate of Incorporation, a series of preferred stock, par value \$0.01 per share, of the Company be and hereby is created, and that the designation and number of shares thereof and the voting and other powers, preferences and relative, participating, optional or other rights of the shares of such series and the qualifications, limitations and restrictions thereof are as follows:

**SERIES D CONVERTIBLE PREFERRED STOCK**

1. Designation and Number of Shares. There shall hereby be created and established a series of preferred stock of the Company designated as “Series D Convertible Preferred Stock” (the “Preferred Shares”). The authorized number of Preferred Shares shall be thirty thousand six hundred eighty (30,680) shares. Each Preferred Share shall have a par value of \$0.01. Capitalized terms not defined herein shall have the meaning as set forth in Section 34 below.
2. Ranking. Except (i) for the Company’s 5% Series B Cumulative Convertible Perpetual Preferred Stock (the “Series B Preferred Stock”), which shall be Senior Preferred Stock (as defined below) for all purposes hereunder, and shall rank senior to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company, (ii) for the Company’s Series C Convertible Preferred Stock (“Series C Preferred Stock”), which shall be Parity Stock (as defined below) for all purposes hereunder, and shall rank pari passu to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company, and (iii) to the extent that the holders of at least a majority of the outstanding Preferred Shares (the “Required Holders”) expressly consent to the creation of Parity Stock (as defined below) or Senior Preferred Stock (as defined below) in accordance with Section 19, all other shares of capital stock of the Company shall be junior in rank to all Preferred Shares with respect to the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company (such junior stock is referred to herein collectively as “Junior Stock”) and the rights of all such shares of Junior Stock shall be subject to the rights, powers, preferences and privileges of the Preferred Shares. Without limiting any other provision of this Certificate of Designations, without the prior express consent of the Required Holders, voting separately as a single class, the Company shall not hereafter authorize or issue any additional or other shares of capital stock that is (i) of senior rank to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company (collectively, the “Senior Preferred Stock”), (ii) of pari passu rank to the Preferred Shares in respect of the preferences as to dividends, distributions and payments upon the liquidation, dissolution and winding up of the Company (collectively, the “Parity Stock”) or (iii) any Junior Stock having a maturity or other date requiring redemption or repayment of such shares of Junior Stock that is prior to the Maturity Date. In the event of the merger or consolidation of the Company with or into another corporation, the Preferred Shares shall maintain their relative rights, powers, designations, privileges and preferences provided for herein and no such merger or consolidation shall result inconsistent therewith.
3. Dividends. In addition to Section 18 below, from and after the first date of issuance of any Preferred Shares (the “Initial Issuance Date”), each holder of a Preferred Share (each, a “Holder” and

**TABLE OF CONTENTS**

collectively, the “Holders”) shall be entitled to receive dividends (“Dividends”) (i) if no Triggering Event (as defined below) has occurred and is continuing, when and as declared by the Board, from time to time, in its sole and absolute discretion, which Dividends, if any, shall be paid by the Company out of funds legally available therefor, payable, subject to the conditions and other terms hereof, in cash on the Stated Value of such Preferred Share, or (ii) 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 Preferred Shares multiplied by the Stated Value (the “Default Dividend Rate”). Such Dividends, if any, that accrue shall be paid on each Installment Date (as defined below) occurring after the accrual of such Dividends, or such earlier time as the Board may in its sole discretion determine.

4. Conversion. Subject to the provisions of Section 4(d), each Preferred Share shall be convertible into validly issued, fully paid and non-assessable shares of Common Stock (as defined below), on the terms and conditions set forth in this Section 4.

(a) Holder’s Conversion Right. Subject to the provisions of Section 4(d), each Holder shall be entitled to convert any portion of the outstanding Preferred Shares held by such Holder into validly issued, fully paid and non-assessable shares of Common Stock in accordance with Section 4(c) at the Conversion Rate (as defined below). The Company shall not issue any fraction of a share of Common Stock upon any conversion. If the issuance would result in the issuance of a fraction of a share of Common Stock, the Company shall round such fraction of a share of Common Stock to the nearest whole share. The Company shall pay any and all actual transfer, stamp, issuance and similar taxes, costs and expenses (including, without limitation, fees and expenses of the Transfer Agent (as defined below)) that may be payable with respect to the issuance and delivery of Common Stock upon conversion of any Preferred Shares; provided, however, that if any such tax, cost or expense is due solely because the Holder requested such shares to be issued in a name other than the Holder’s name, then the Holder will pay such tax, cost or expense.

(b) Conversion Rate. The number of shares of Common Stock issuable upon conversion of any Preferred Share pursuant to Section 4(a) shall be determined by dividing (x) the Conversion Amount of such Preferred Share by (y) the Conversion Price (the “Conversion Rate”):

(i) “Conversion Amount” means, with respect to each Preferred Share, as of the applicable date of determination, the sum of (1) the Stated Value thereof plus (2) the Additional Amount thereon and any accrued and unpaid Late Charges (as defined below in Section 27(c)) with respect to such Stated Value and Additional Amount as of such date of determination.

(ii) “Conversion Price” means, with respect to each Preferred Share, as of any Conversion Date or other date of determination, \$1.38, subject to adjustment as provided herein.

(c) Mechanics of Conversion. The conversion of each Preferred Share shall be conducted in the following manner or in such other manner as agreed to by the Company and the Required Holders in writing:

(i) Optional Conversion. To convert a Preferred Share into shares of Common Stock on any date (a “Conversion Date”), a Holder shall deliver (via electronic mail), for receipt on or prior to 4:59 p.m., New York time, on such date, a copy of an executed notice of conversion of the share(s) of Preferred Shares subject to such conversion in the form attached hereto as Exhibit I (the “Conversion Notice”) to the Company. If required by Section 4(c)(iii), within two (2) Trading Days following a conversion of any such Preferred Shares as aforesaid, such Holder shall surrender to a nationally recognized overnight delivery service for delivery to the Company the original certificates, if any, representing the Preferred Shares (the “Preferred Share Certificates”) so converted as aforesaid (or an indemnification undertaking with respect to the Preferred Shares in the case of its loss, theft or destruction as contemplated by Section 21(b)). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice, the Company shall transmit by electronic mail an acknowledgment of confirmation, in the form attached hereto as Exhibit II, of receipt of such Conversion Notice to such Holder and the Company’s transfer agent (the “Transfer Agent”), which confirmation shall constitute an instruction to the Transfer Agent to process such Conversion Notice in accordance with the terms herein. On or before the second (2nd) Trading Day following the date of receipt of a Conversion Notice

TABLE OF CONTENTS

(or such earlier date as required pursuant to the 1934 Act or other applicable law, rule or regulation for the settlement of a trade on the Principal Market initiated on the applicable Conversion Date of such shares of Common Stock issuable pursuant to such Conversion Notice) (the “Share Delivery Deadline”), the Company shall (1) provided that the Transfer Agent is participating in The Depository Trust Company’s (“DTC”) Fast Automated Securities Transfer Program, credit such aggregate number of shares of Common Stock to which such Holder shall be entitled to such Holder’s or its designee’s balance account with DTC through its Deposit/Withdrawal at Custodian system, or (2) if the Transfer Agent is not participating in the DTC Fast Automated Securities Transfer Program, issue and deliver (via reputable overnight courier) to the address as specified in such Conversion Notice, a certificate, registered in the name of such Holder or its designee, for the number of shares of Common Stock to which such Holder shall be entitled. If the number of Preferred Shares represented by the Preferred Share Certificate(s) submitted for conversion pursuant to Section 4(c)(iii) is greater than the number of Preferred Shares being converted, then the Company shall, as soon as practicable and in no event later than five (5) Trading Days after receipt of the Preferred Share Certificate(s) and at its own expense, issue and deliver to such Holder (or its designee) a new Preferred Share Certificate (in accordance with Section 21(d)) representing the number of Preferred Shares not converted. The Person or Persons entitled to receive the shares of Common Stock issuable upon a conversion of Preferred Shares shall be treated for all purposes as the record holder or holders of such shares of Common Stock on the Conversion Date. In connection with any conversion of Preferred Shares by a Holder, the number of Preferred Shares converted by such Holder shall be deducted from the Installment Amount(s) of such Holder relating to the Installment Date(s) as set forth in the applicable Conversion Notice.

(ii) Company’s Failure to Timely Convert. If the Company shall fail, for any reason or for no reason, on or prior to the applicable Share Delivery Deadline, to issue to such Holder a certificate for the number of shares of Common Stock to which such Holder is entitled and register such shares of Common Stock on the Company’s share register or to credit such Holder’s or its designee’s balance account with DTC for such number of shares of Common Stock to which such Holder is entitled upon such Holder’s conversion of any Conversion Amount (as the case may be) (a “Conversion Failure”), and if on or after such Share Delivery Deadline (provided that such Holder places an order to purchase such shares before the time the Company remedies such failure) such Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of all or any portion of the number of shares of Common Stock, or a sale of a number of shares of Common Stock equal to all or any portion of the number of shares of Common Stock, issuable upon such conversion that such Holder so anticipated receiving from the Company, then, in addition to all other remedies available to such Holder, the Company shall, within two (2) Business Days after receipt of such Holder’s request and in such Holder’s discretion, either: (I) pay cash to such Holder in an amount equal to such Holder’s total purchase price (including brokerage commissions and other out-of-pocket expenses, if any) for the shares of Common Stock so purchased (including, without limitation, by any other Person in respect, or on behalf, of such Holder) (the “Buy-In Price”), at which point the Company’s obligation to so issue and deliver such certificate or credit such Holder’s balance account with DTC for the number of shares of Common Stock to which such Holder is entitled upon such Holder’s conversion hereunder (as the case may be) (and to issue such shares of Common Stock) shall terminate, or (II) promptly honor its obligation to so issue and deliver to such Holder a certificate or certificates representing such shares of Common Stock or credit such Holder’s balance account with DTC for the number of shares of Common Stock to which such Holder is entitled upon such Holder’s conversion hereunder (as the case may be) and pay cash to such Holder in an amount equal to the excess (if any) of the Buy-In Price over the product of (x) such number of shares of Common Stock multiplied by (y) the VWAP of the Common Stock on the attempted Conversion Date. For the avoidance of doubt, to the extent that the Company makes a payment contemplated by the foregoing sentence, the applicable portion of the Preferred Shares to which the Conversion Failure applied shall no longer be outstanding.

(iii) Registration; Book-Entry. At the time of issuance of any Preferred Shares hereunder, the applicable Holder may, by written request (including by electronic-mail) to the Company, elect to receive such Preferred Shares in the form of one or more Preferred Share Certificates or in Book-Entry form. The Company (or the Transfer Agent, as custodian for the Preferred Shares) shall maintain a

**TABLE OF CONTENTS**

register (the “Register”) for the recordation of the names and addresses of the Holders of each Preferred Share and the Stated Value of the Preferred Shares and whether the Preferred Shares are held by such Holder in Preferred Share Certificates or in Book-Entry form (the “Registered Preferred Shares”). The entries in the Register shall be conclusive and binding for all purposes absent manifest error. The Company and each Holder of the Preferred Shares shall treat each Person whose name is recorded in the Register as the owner of a Preferred Share for all purposes (including, without limitation, the right to receive payments and Dividends hereunder) notwithstanding notice to the contrary. A Registered Preferred Share may be assigned, transferred or sold only by registration of such assignment or sale on the Register. Upon its receipt of a written request to assign, transfer or sell one or more Registered Preferred Shares by such Holder thereof, the Company shall record the information contained therein in the Register and issue one or more new Registered Preferred Shares in the same aggregate Stated Value as the Stated Value of the surrendered Registered Preferred Shares to the designated assignee or transferee pursuant to Section 21, provided that if the Company does not so record an assignment, transfer or sale (as the case may be) of such Registered Preferred Shares within two (2) Business Days of such a request, then the Register shall be automatically deemed updated to reflect such assignment, transfer or sale (as the case may be). Notwithstanding anything to the contrary set forth in this Section 4, following conversion of any Preferred Shares in accordance with the terms hereof, the applicable Holder shall not be required to physically surrender such Preferred Shares held in the form of a Preferred Share Certificate to the Company unless (A) the full or remaining number of Preferred Shares represented by the applicable Preferred Share Certificate are being converted (in which event such certificate(s) shall be delivered to the Company as contemplated by this Section 4(c)(iii)) or (B) such Holder has provided the Company with prior written notice (which notice may be included in a Conversion Notice) requesting reissuance of Preferred Shares upon physical surrender of the applicable Preferred Share Certificate. Each Holder and the Company shall maintain records showing the Stated Value, Dividends and Late Charges converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) or shall use such other method, reasonably satisfactory to such Holder and the Company, so as not to require physical surrender of a Preferred Share Certificate upon conversion. If the Company does not update the Register to record such Stated Value, Dividends and Late Charges converted and/or paid (as the case may be) and the dates of such conversions and/or payments (as the case may be) within two (2) Business Days of such occurrence, then the Register shall be automatically deemed updated to reflect such occurrence. In the event of any dispute or discrepancy as to the number of Preferred Shares to which the record holder is entitled such dispute shall be resolved in accordance with Section 27. Notwithstanding the foregoing, if the number of Preferred Shares set forth on the face of a Preferred Share Certificate is greater than the number of Preferred Shares then outstanding under such Preferred Share Certificate, the applicable Holder may not transfer such Preferred Share Certificate into the name of any other Person (other than an Affiliate of such Holder) unless such Holder first physically surrenders such Preferred Share Certificate to the Company pursuant to Section 21 below (or delivers a lost certificate affidavit to the Company, if applicable, pursuant to Section 21(b) below), whereupon the Company will forthwith issue and deliver to such Holder (or to such other Person as designated by such Holder to the Company in writing) a new Preferred Share Certificate of like tenor, representing, in the aggregate, the remaining number of Preferred Shares outstanding under such Preferred Share Certificate. A Holder and any transferee or assignee, by acceptance of a certificate, acknowledge and agree that, by reason of the provisions of this paragraph, following conversion of any Preferred Shares, the number of Preferred Shares represented by such certificate may be less than the number of Preferred Shares stated on the face thereof. Each Preferred Share Certificate shall bear the following legend:

**ANY TRANSFEREE OR ASSIGNEE OF THIS CERTIFICATE SHOULD CAREFULLY REVIEW THE TERMS OF THE CORPORATION’S CERTIFICATE OF DESIGNATIONS RELATING TO THE SHARES OF SERIES D PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE, INCLUDING SECTION 4(c)(iii) THEREOF. THE NUMBER OF SHARES OF SERIES D PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE MAY BE LESS THAN THE NUMBER OF SHARES OF SERIES D PREFERRED STOCK**

A-4

TABLE OF CONTENTS

STATED ON THE FACE HEREOF PURSUANT TO SECTION 4(c)(iii) OF THE CERTIFICATE OF DESIGNATIONS RELATING TO THE SHARES OF SERIES D PREFERRED STOCK REPRESENTED BY THIS CERTIFICATE.

(iv) Pro Rata Conversion; Disputes. In the event that the Company receives a Conversion Notice from more than one Holder for the same Conversion Date and the Company can convert some, but not all, of such Preferred Shares submitted for conversion, the Company shall convert from each Holder electing to have Preferred Shares converted on such date a pro rata amount of such Holder's Preferred Shares submitted for conversion on such date based on the number of Preferred Shares submitted for conversion on such date by such Holder relative to the aggregate number of Preferred Shares submitted for conversion on such date. In the event of a dispute as to the number of shares of Common Stock issuable to a Holder in connection with a conversion of Preferred Shares, the Company shall issue to such Holder the number of shares of Common Stock not in dispute and resolve such dispute in accordance with Section 26.

(d) Limitation on Beneficial Ownership.

(i) The Company shall not effect the conversion of any of the Preferred Shares held by a Holder, and such Holder shall not have the right to convert any of the Preferred Shares held by such Holder pursuant to the terms and conditions of this Certificate of Designations and any such conversion shall be null and void and treated as if never made, to the extent that after giving effect to such conversion, such Holder together with the other Attribution Parties collectively would beneficially own in excess of 4.99% (the "Maximum Percentage") of the shares of Common Stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing sentence, the aggregate number of shares of Common Stock beneficially owned by such Holder and the other Attribution Parties shall include the number of shares of Common Stock held by such Holder and all other Attribution Parties plus the number of shares of Common Stock issuable upon conversion of the Preferred Shares with respect to which the determination of such sentence is being made, but shall exclude shares of Common Stock which would be issuable upon (A) conversion of the remaining, nonconverted Preferred Shares beneficially owned by such Holder or any of the other Attribution Parties and (B) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any convertible notes, convertible preferred stock or warrants) beneficially owned by such Holder or any other Attribution Party subject to a limitation on conversion or exercise analogous to the limitation contained in this Section 4(d)(i). For purposes of this Section 4(d)(i), beneficial ownership shall be calculated in accordance with Section 13(d) of the 1934 Act. For purposes of determining the number of outstanding shares of Common Stock a Holder may acquire upon the conversion of such Preferred Shares without exceeding the Maximum Percentage, such Holder may rely on the number of outstanding shares of Common Stock as reflected in (x) the Company's most recent Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other public filing with the SEC, as the case may be, (y) a more recent public announcement by the Company or (z) any other written notice by the Company or the Transfer Agent, if any, setting forth the number of shares of Common Stock outstanding (the "Reported Outstanding Share Number"). If the Company receives a Conversion Notice from a Holder at a time when the actual number of outstanding shares of Common Stock is less than the Reported Outstanding Share Number, the Company shall notify such Holder in writing of the number of shares of Common Stock then outstanding and, to the extent that such Conversion Notice would otherwise cause such Holder's beneficial ownership, as determined pursuant to this Section 4(d)(i), to exceed the Maximum Percentage, such Holder must notify the Company of a reduced number of shares of Common Stock to be purchased pursuant to such Conversion Notice. For any reason at any time, upon the written or oral request of any Holder, the Company shall within two (2) Business Days confirm orally and in writing or by electronic mail to such Holder the number of shares of Common Stock then outstanding. In any case, the number of outstanding shares of Common Stock shall be determined after giving effect to the conversion or exercise of securities of the Company, including such Preferred Shares by such Holder and any other Attribution Party, since the date as of which the Reported Outstanding Share Number was reported. In the event that the issuance of shares of Common Stock to a Holder upon conversion of such Preferred Shares results in such Holder and the other Attribution Parties being deemed to beneficially own, in the aggregate, more than the Maximum

A-5



TABLE OF CONTENTS

Percentage of the number of outstanding shares of Common Stock (as determined under Section 13(d) of the 1934 Act), the number of shares so issued by which such Holder's and the other Attribution Parties' aggregate beneficial ownership exceeds the Maximum Percentage (the "Excess Shares") shall be deemed null and void and shall be cancelled ab initio, and such Holder shall not have the power to vote or to transfer the Excess Shares. For the avoidance of doubt, the determination of whether an issuance would result in the creation of Excess Shares shall be based upon the determination made by the Holder of its and its Attribution Parties' beneficial ownership based on the Reported Outstanding Share Number provided by the Company. Upon delivery of a written notice to the Company, any Holder may from time to time increase (with such increase not effective until the sixty-first (61st) day after delivery of such notice) or decrease the Maximum Percentage of such Holder to any other percentage not in excess of 9.99% as specified in such notice; provided that (i) any such increase in the Maximum Percentage will not be effective until the sixty-first (61st) day after such notice is delivered to the Company and (ii) any such increase or decrease will apply only to such Holder and the other Attribution Parties and not to any other Holder. For purposes of clarity, the shares of Common Stock issuable to a Holder pursuant to the terms of this Certificate of Designations in excess of the Maximum Percentage shall not be deemed to be beneficially owned by such Holder for any purpose including for purposes of Section 13(d) or Rule 16a-1(a)(1) of the 1934 Act. No prior inability to convert such Preferred Shares pursuant to this paragraph shall have any effect on the applicability of the provisions of this paragraph with respect to any subsequent determination of convertibility. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 4(d)(i) to the extent necessary to correct this paragraph (or any portion of this paragraph) which may be defective or inconsistent with the intended beneficial ownership limitation contained in this Section 4(d)(i) or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitation contained in this paragraph may not be waived and shall apply to a successor holder of such Preferred Shares.

(ii) Principal Market Regulation. The Company shall not issue any shares of Common Stock upon conversion of any Preferred Shares or otherwise pursuant to the terms of this Certificate of Designations if the issuance of such shares of Common Stock would exceed 18,531,213 shares of Common Stock (as adjusted for any stock dividend, stock split, stock combination, reclassification or similar transaction occurring after the Subscription Date) (the number of shares which may be issued without violating such rules and regulations, the "Exchange Cap"), except that such limitation shall not apply in the event that the Company obtains the approval of its stockholders as required by the applicable rules of the Principal Market for issuances of shares of Common Stock in excess of such amount. Until such approval is obtained, no Holder shall be issued in the aggregate, upon conversion or exercise (as the case may be) of any Preferred Shares, shares of Common Stock in an amount greater than the product of (i) the Exchange Cap as of the Initial Issuance Date multiplied by (ii) the quotient of (1) the aggregate number of Preferred Shares issued to such Holder on the Initial Issuance Date divided by (2) the aggregate number of Preferred Shares issued to all Holders on the Initial Issuance Date (with respect to each Holder, the "Exchange Cap Allocation"). In the event that any Holder shall sell or otherwise transfer any of such Holder's Preferred Shares, the transferee shall be allocated a pro rata portion of such Holder's Exchange Cap Allocation with respect to such portion of such Preferred Shares so transferred, and the restrictions of the prior sentence shall apply to such transferee with respect to the portion of the Exchange Cap Allocation so allocated to such transferee. Upon conversion in full of a holder's Preferred Shares, the difference (if any) between such holder's Exchange Cap Allocation and the number of shares of Common Stock actually issued to such holder upon such holder's conversion in full of such Preferred Shares shall be allocated, to the respective Exchange Cap Allocations of the remaining Holders on a pro rata basis in proportion to the shares of Common Stock underlying the Preferred Shares then held by each such holder of Preferred Shares. In the event that the Company is prohibited from issuing any shares of Common Stock pursuant to this Section 4(d)(ii) (the "Exchange Cap Shares") to a Holder at any time after the Stockholder Meeting Outside Date, the Company shall pay cash to such Holder in exchange for the redemption of such number of Preferred Shares held by the Holder that are not convertible into such Exchange Cap Shares at a price equal to the product of (x) such number of Exchange Cap Shares and (y) 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.

**TABLE OF CONTENTS**

(e) Triggering Event Conversion.

(i) General. Subject to Section 4(d), at any time during the period commencing on the date of the occurrence of a Triggering Event (as defined in Section 5(a)) and ending on the later to occur of (x) the date of the cure of such Triggering Event and (y) ten (10) Trading Days after the date the Company delivers written notice to such Holder of such Triggering Event, a Holder may, at such Holder's option, by delivery of a Conversion Notice to the Company (the date of any such Conversion Notice, each a "Triggering Event Conversion Date"), convert all, or any number of Preferred Shares (such Conversion Amount of the Preferred Shares to be converted pursuant to this Section 4(e), the "Triggering Event Conversion Amount") into shares of Common Stock at the Triggering Event Conversion Price (each, a "Triggering Event Conversion").

(ii) Mechanics of Triggering Event Conversion. On any Triggering Event Conversion Date, a Holder may voluntarily convert any Triggering Event Conversion Amount pursuant to Section 4(c) (with "Triggering Event Conversion Price" replacing "Conversion Price" for all purposes hereunder with respect to such Triggering Event Conversion and "Triggering Event Conversion Amount" replacing "Conversion Amount" in clause (x) of the definition of Conversion Rate above with respect to such Triggering Event Conversion) by designating in the Conversion Notice delivered pursuant to this Section 4(e) of this Certificate of Designations that such Holder is electing to use the Triggering Event Conversion Price for such conversion. Notwithstanding anything to the contrary in this Section 4(e), but subject to Section 4(d), until the Company delivers shares of Common Stock representing the applicable Triggering Event Conversion Amount to such Holder, such Triggering Event Conversion Amount may be converted by such Holder into shares of Common Stock pursuant to Section 4(c) without regard to this Section 4(e).

5. Triggering Event Redemptions.

(a) Triggering Event. Each of the following events shall constitute a "Triggering Event" and each of the events in clauses (vii), (viii) and (ix) shall constitute a "Bankruptcy Triggering Event":

(i) any of the Preferred Shares or shares of Common Stock issuable upon conversion of the Preferred Shares are not freely tradable without restriction by any of the Holders (subject to any restrictions imposed on any Holder due to such Holder's Affiliate status with respect to the Company);

(ii) the suspension from trading or failure of the Common Stock to be trading or listed (as applicable) on an Eligible Market for a period of five (5) consecutive Trading Days;

(iii) other than with respect to any Authorized Share Failure (as defined in Section 11(b)), the Company's notice, written or oral, to any Holder, including, without limitation, by way of public announcement or through any of its agents, at any time, of its intention not to comply, as required, with a request for conversion of any Preferred Shares into shares of Common Stock that is requested in accordance with the provisions of this Certificate of Designations, other than pursuant to Section 4(d) hereof;

(iv) following the tenth (10th) consecutive day that a Holder's Authorized Share Allocation (as defined in Section 11(a) below) is less than 150% of the number of shares of Common Stock that such Holder would be entitled to receive upon a conversion, in full, of all of the Preferred Shares then held by such Holder (without regard to any limitations on conversion set forth in this Certificate of Designations), except, solely with respect to the first occurrence of an Authorized Share Failure hereunder, to the extent the Company is complying with the terms set forth in Section 11(b) below;

(v) the Company's failure to pay to any Holder any amount when and as due under this Certificate of Designations (including, without limitation, the Company's failure to pay any redemption payments or amounts hereunder), (whether or not permitted pursuant to the DGCL), except, in each such case only if such failure remains uncured for a period of at least five (5) Trading Days;

(vi) the Company, on two or more occasions, either (A) fails to cure a Conversion Failure by delivery of the required number of shares of Common Stock within five (5) Trading Days after the applicable Conversion Date or (B) fails to remove any restrictive legend on any certificate at a time when such restrictive legend is no longer required under applicable federal or state securities laws, and such failure remains uncured for at least five (5) Trading Days;

A-7

---

TABLE OF CONTENTS

(vii) bankruptcy, insolvency, reorganization or liquidation proceedings or other proceedings for the relief of debtors shall be instituted by or against the Company or any Significant Subsidiary and, if instituted against the Company or any Significant Subsidiary by a third party, shall not be dismissed within sixty (60) days of their initiation;

(viii) the commencement by the Company or any Significant Subsidiary of a voluntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or of any other case or proceeding to be adjudicated a bankrupt or insolvent, or the consent by it to the entry of a decree, order, judgment or other similar document in respect of the Company or any Significant Subsidiary in an involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or to the commencement of any bankruptcy or insolvency case or proceeding against it, or the filing by it of a petition or answer or consent seeking reorganization or relief under any applicable federal, state or foreign law, or the consent by it to the filing of such petition or to the appointment of or taking possession by a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Significant Subsidiary or of any substantial part of its property, or the making by it of an assignment for the benefit of creditors, or the execution of a composition of debts, or the occurrence of any other similar federal, state or foreign proceeding, or the admission by it in writing of its inability to pay its debts generally as they become due, the taking of corporate action by the Company or any Significant Subsidiary in furtherance of any such action or the taking of any action by any Person to commence a Uniform Commercial Code foreclosure sale or any other similar action under federal, state or foreign law with respect to a material portion of the Company's or any Significant Subsidiary's assets;

(ix) the entry by a court of (i) a decree, order, judgment or other similar document in respect of the Company or any Significant Subsidiary of a voluntary or involuntary case or proceeding under any applicable federal, state or foreign bankruptcy, insolvency, reorganization or other similar law or (ii) a decree, order, judgment or other similar document adjudging the Company or any Significant Subsidiary as bankrupt or insolvent, or approving as properly filed a petition seeking liquidation, reorganization, arrangement, adjustment or composition of or in respect of the Company or any Significant Subsidiary under any applicable federal, state or foreign law or (iii) a decree, order, judgment or other similar document appointing a custodian, receiver, liquidator, assignee, trustee, sequestrator or other similar official of the Company or any Significant Subsidiary or of any substantial part of its property, or ordering the winding up or liquidation of its affairs, and the continuance of any such decree, order, judgment or other similar document or any such other decree, order, judgment or other similar document unstayed and in effect for a period of thirty (30) consecutive days;

(x) a final judgment or judgments for the payment of money aggregating in excess of \$750,000 are rendered against the Company and/or any of its Subsidiaries and which judgments are not, within sixty (60) days after the entry thereof, bonded, discharged, settled or stayed pending appeal, or are not discharged within sixty (60) days after the expiration of such stay; provided, however, any judgment which is covered by insurance or an indemnity from a credit worthy party shall not be included in calculating the \$750,000 amount set forth above so long as the Company provides each Holder a written statement from such insurer or indemnity provider (which written statement shall be reasonably satisfactory to the Required Holders) to the effect that such judgment is covered by insurance or an indemnity and the Company or such Subsidiary (as the case may be) will receive the proceeds of such insurance or indemnity within thirty (30) days of the issuance of such judgment;

(xi) the Company and/or any Subsidiary, individually or in the aggregate, either (i) fails to pay, when due, or within any applicable grace period, any payment with respect to any Indebtedness in excess of \$750,000 due to any third party (other than, with respect to unsecured Indebtedness only, payments contested by the Company and/or such Subsidiary (as the case may be) in good faith by proper proceedings and with respect to which adequate reserves have been set aside for the payment thereof in accordance with GAAP) or is otherwise in default, breach or violation of any agreement for monies owed or owing in an amount in excess of \$750,000, which breach or violation permits the other party thereto to declare a default or otherwise redeem or accelerate amounts due thereunder, or (ii) suffer to

---

A-8

**TABLE OF CONTENTS**

exist any other circumstance or event that would, with or without the passage of time or the giving of notice, result in a default or event of default under any agreement binding the Company or any Subsidiary, which default or event of default would or is reasonably expected to have a Material Adverse Effect;

(xii) other than as specifically set forth in another clause of this Section 5(a), the Company or any Subsidiary breaches any covenant or other term of this Certificate of Designations in any material respect (other than covenants subject to material adverse effect or materiality, which may not be breached in any respect), except, in the case of a breach of a covenant or other term that is curable, only if such breach remains uncured for a period of five (5) consecutive Trading Days;

(xiii) a false or inaccurate certification (including a false or inaccurate deemed certification) by the Company that either (A) the Equity Conditions are satisfied, (B) there has been no Equity Conditions Failure, or (C) as to whether any Triggering Event has occurred;

(xiv) any breach or failure in any respect by the Company to comply with any provision of Section 15 of this Certificate of Designations, except, in the case of a breach of a covenant or other term or condition that is curable, only if such breach remains uncured for a period of five (5) consecutive Trading Days; and

(xv) any provision of this Certificate of Designations shall at any time for any reason (other than pursuant to the express terms hereof) cease to be valid and binding on or enforceable against the parties thereto, or the validity or enforceability thereof shall be contested, directly or indirectly, by the Company or any Subsidiary, or a proceeding shall be commenced by the Company or any Subsidiary seeking to establish the invalidity or unenforceability thereof.

(b) Notice of a Triggering Event; Redemption Right. Upon the occurrence of a Triggering Event with respect to the Preferred Shares, the Company shall within two (2) Business Days deliver written notice thereof via electronic mail and overnight courier (with next day delivery specified) (an “Triggering Event Notice”) to each Holder. At any time after the earlier of a Holder’s receipt of a Triggering Event Notice and such Holder becoming aware of a Triggering Event (such earlier date, the “Triggering Event Right Commencement Date”) and ending (such ending date, the “Triggering Event Right Expiration Date”, and each such period, an “Triggering Event Redemption Right Period”) on the twentieth (20th) Trading Day after the later of (x) the date such Triggering Event is cured and (y) such Holder’s receipt of a Triggering Event Notice that includes (I) a reasonable description of the applicable Triggering Event, (II) a certification as to whether, in the opinion of the Company, such Triggering Event is capable of being cured and, if applicable, a reasonable description of any existing plans of the Company to cure such Triggering Event and (III) a certification as to the date the Triggering Event occurred and, if cured on or prior to the date of such Triggering Event Notice, the applicable Triggering Event Right Expiration Date, such Holder may require the Company to redeem (regardless of whether such Triggering Event has been cured on or prior to the Triggering Event Right Expiration Date), subject to Section 5(c), all or any of the Preferred Shares by delivering written notice thereof (the “Triggering Event Redemption Notice”) to the Company, which Triggering Event Redemption Notice shall indicate the number of the Preferred Shares such Holder is electing to redeem. Each of the Preferred Shares subject to redemption by the Company pursuant to this Section 5(b) shall be redeemed by the Company at a price equal to the greater of (i) the product of (A) the Conversion Amount to be redeemed multiplied by (B) the Redemption Premium and (ii) the product of (X) 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 (Y) 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 to be made under this Section 5(b) (the “Triggering Event Redemption Price”). Redemptions required by this Section 5(b) shall be made in accordance with the provisions of Section 12. To the extent redemptions required by this Section 5(b) are deemed or determined by a court of competent jurisdiction to be prepayments of the Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 5(b), but subject to Section 4(d), until the Triggering Event Redemption Price (together with any Late Charges thereon) is paid in full, the Conversion Amount submitted for

TABLE OF CONTENTS

redemption under this Section 5(b) (together with any Late Charges thereon) may be converted, in whole or in part, by such Holder into Common Stock pursuant to the terms of this Certificate of Designations. In the event of a partial redemption of the Preferred Shares held by a Holder pursuant hereto, the number of Preferred Shares of such Holder redeemed shall be deducted from the Installment Amount(s) of such Holder relating to the applicable Installment Date(s) as set forth in the Triggering Event Redemption Notice. In the event of the Company's redemption of any of the Preferred Shares under this Section 5(b), a Holder's damages would be uncertain and difficult to estimate because of the parties' inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for such Holder. Accordingly, any redemption premium due under this Section 5(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of such Holder's actual loss of its investment opportunity and not as a penalty.

(c) **Mandatory Redemption upon Bankruptcy Triggering Event.** Notwithstanding anything to the contrary herein, and notwithstanding any conversion that is then required or in process, upon any Bankruptcy Triggering Event occurring prior to or following the Maturity Date, the Company shall immediately redeem, in cash, each of the Preferred Shares then outstanding at a redemption price equal to the applicable Triggering Event Redemption Price (calculated as if such Holder shall have delivered the Triggering Event Redemption Notice immediately prior to the occurrence of such Bankruptcy Triggering Event), without the requirement for any notice or demand or other action by any Holder or any other Person, provided that a Holder may, in its sole discretion, waive such right to receive payment upon a Bankruptcy Triggering Event, in whole or in part, and any such waiver shall not affect any other rights of such Holder or any other Holder hereunder, including any other rights in respect of such Bankruptcy Triggering Event, any right to conversion, and any right to payment of such Triggering Event Redemption Price to another Holder or any other Redemption Price, as applicable.

#### 6. Rights Upon Fundamental Transactions.

(a) **Assumption.** The Company shall not enter into or be party to a Fundamental Transaction unless the Successor Entity assumes in writing all of the obligations of the Company under this Certificate of Designations in accordance with the provisions of this Section 6(a) pursuant to written agreements in form and substance reasonably satisfactory to the Required Holders, including agreements to deliver to each Holder in exchange for such Preferred Shares a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Certificate of Designations, including, without limitation, having a stated value and dividend rate equal to the Stated Value and Default Dividend Rate and having similar ranking to the Preferred Shares, and reasonably satisfactory to the Required Holders. Upon the occurrence of any Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Certificate of Designations referring to the "Company" shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Certificate of Designations with the same effect as if such Successor Entity had been named as the Company herein and therein. In addition to the foregoing, upon consummation of a Fundamental Transaction, the Successor Entity shall deliver to each Holder confirmation that there shall be issued upon conversion or redemption of the Preferred Shares at any time after the consummation of such Fundamental Transaction, in lieu of the shares of Common Stock (or other securities, cash, assets or other property (except such items still issuable under Sections 7(b) and 18, which shall continue to be receivable thereafter)) issuable upon the conversion or redemption of the Preferred Shares prior to such Fundamental Transaction, such shares of common stock (or their equivalent) of the Successor Entity (including its Parent Entity) which each Holder would have been entitled to receive upon the happening of such Fundamental Transaction had all the Preferred Shares held by each Holder been converted immediately prior to such Fundamental Transaction (without regard to any limitations on the conversion of the Preferred Shares contained in this Certificate of Designations), as adjusted in accordance with the provisions of this Certificate of Designations. Notwithstanding the foregoing, any Holder may elect, at its sole option, by delivery of written notice to the Company to waive this Section 6(a) to permit the Fundamental Transaction without the assumption of the Preferred Shares. The provisions of this Section 6 shall apply similarly and equally to successive Fundamental Transactions and shall be applied without regard to any limitations on the conversion or redemption of the Preferred Shares.

TABLE OF CONTENTS

(b) Change of Control Redemption Right. No sooner than twenty (20) Trading Days nor later than ten (10) Trading Days prior to the consummation of a Change of Control (the “Change of Control Date”), but not prior to the public announcement of such Change of Control, the Company shall deliver written notice thereof via electronic mail and overnight courier (next day delivery selected) to each Holder (a “Change of Control Notice”). At any time during the period beginning after a Holder’s receipt of a Change of Control Notice or such Holder becoming aware of a Change of Control if a Change of Control Notice is not delivered to such Holder in accordance with the immediately preceding sentence (as applicable) and ending on the later of twenty (20) Trading Days after (A) consummation of such Change of Control or (B) the date of receipt of such Change of Control Notice, such Holder may require the Company to redeem all or any portion of such Holder’s Preferred Shares by delivering written notice thereof (“Change of Control Redemption Notice”) to the Company, which Change of Control Redemption Notice shall indicate the number of Preferred Shares such Holder is electing to have the Company redeem. Each Preferred Share subject to redemption pursuant to this Section 6(b) shall be redeemed by the Company in cash at a price equal to the greatest of (i) the product of (x) the Redemption Premium multiplied by (y) the Conversion Amount being redeemed, (ii) the product of (x) the Conversion Amount being redeemed multiplied by (y) the quotient determined by dividing (I) the greatest Closing Sale Price of the shares of Common Stock during the period beginning on the date 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 (II) the Conversion Price then in effect and (iii) the product of (x) the Conversion Amount being redeemed multiplied by (y) the quotient of (A) the aggregate cash consideration and the aggregate cash value of any non-cash consideration per share of Common Stock to be paid to such holders of the shares of Common Stock upon consummation of such Change of Control (any such non-cash consideration constituting publicly-traded securities shall be valued at the highest of the Closing Sale Price of such securities as of the Trading Day immediately prior to the consummation of such Change of Control, the Closing Sale Price of such securities on the Trading Day immediately following the public announcement of such proposed Change of Control and the Closing Sale Price of such securities on the Trading Day immediately prior to the public announcement of such proposed Change of Control) divided by (B) the Conversion Price then in effect (the “Change of Control Redemption Price”). Redemptions required by this Section 6(b) shall have priority to payments to all other stockholders of the Company in connection with such Change of Control. To the extent redemptions required by this Section 6(b) are deemed or determined by a court of competent jurisdiction to be prepayments of the Preferred Shares by the Company, such redemptions shall be deemed to be voluntary prepayments. Notwithstanding anything to the contrary in this Section 6(b), but subject to Section 4(d), until the applicable Change of Control Redemption Price (together with any Late Charges thereon) is paid in full to the applicable Holder, the Preferred Shares submitted by such Holder for redemption under this Section 6(b) may be converted, in whole or in part, by such Holder into Common Stock pursuant to Section 4 or in the event the Conversion Date is after the consummation of such Change of Control, stock or equity interests of the Successor Entity substantially equivalent to the Company’s shares of Common Stock pursuant to Section 4. In the event of a partial redemption of the Preferred Shares held by a Holder pursuant hereto, the number of Preferred Shares of such Holder redeemed shall be deducted from the Installment Amount(s) of such Holder relating to the applicable Installment Date(s) as set forth in the Change of Control Redemption Notice. In the event of the Company’s redemption of any of the Preferred Shares under this Section 6(b), such Holder’s damages would be uncertain and difficult to estimate because of the parties’ inability to predict future interest rates and the uncertainty of the availability of a suitable substitute investment opportunity for a Holder. Accordingly, any redemption premium due under this Section 6(b) is intended by the parties to be, and shall be deemed, a reasonable estimate of such Holder’s actual loss of its investment opportunity and not as a penalty. The Company shall make payment of the applicable Change of Control Redemption Price concurrently with the consummation of such Change of Control if a Change of Control Redemption Notice is received prior to the consummation of such Change of Control and within two (2) Trading Days after the Company’s receipt of such notice otherwise (the “Change of Control Redemption Date”). Redemptions required by this Section 6 shall be made in accordance with the provisions of Section 12.

TABLE OF CONTENTS

7. Right of Participation; Rights Upon Issuance of Purchase Rights and Other Corporate Events.

(a) Right of Participation.

(i) From the date hereof until first (1st) anniversary of the Initial Issuance Date, the Company will not (A) directly or indirectly, file any registration statement with the SEC with respect to any Subsequent Placement (as defined below) and shall not file any prospectus supplement with respect to any Subsequent Placement or (B) directly or indirectly, offer, sell, grant any option to purchase, or otherwise dispose of (or announce any offer, sale, grant or any option to purchase or other disposition of) any of its or its Subsidiaries' equity or equity equivalent securities, including without limitation any debt, preferred stock or other instrument or security that is, at any time during its life and under any circumstances, convertible into or exchangeable or exercisable for shares of Common Stock or Common Stock Equivalents (any such offer, sale, grant, disposition or announcement being referred to as a "Subsequent Placement") unless the Company shall have first complied with this Section 7(a).

(ii) The Company shall deliver to each Holder an irrevocable written notice (the "Offer Notice") of any proposed or intended issuance or sale (the "Offer") of the securities being offered (the "Offered Securities") in a Subsequent Placement, which Offer Notice shall (A) identify and describe the Offered Securities, (B) describe the anticipated price and other material terms upon which they are to be issued or sold, and the number or amount of the Offered Securities to be issued or sold, (C) identify the Persons (if known) to which or with which the Offered Securities are to be offered, issued or sold and (D) offer to issue and sell to such Holders at least thirty-five percent (35%) of the Offered Securities, allocated among such Holders (a) based on such Holder's pro rata ownership of the total number of Preferred Shares outstanding on the Subscription Date (the "Basic Amount") and (b) with respect to each Holder that elects to purchase its Basic Amount, any additional portion of the Offered Securities attributable to the Basic Amounts of other Holders as such Holder shall indicate it will purchase or acquire should the other Holders subscribe for less than their Basic Amounts (the "Undersubscription Amount"), which process shall be repeated until the Holders shall have an opportunity to subscribe for any remaining Undersubscription Amount; provided that (i) the Company shall promptly notify each Holder of any changes to the anticipated price and other material terms of the Offered Securities after the Offer Notice is sent and (ii) the Company shall provide each Holder reasonable notice (which shall not be less than four (4) hours) of the final price (or formula therefor) of the Offered Securities before the Holders are required to provide the Company any notice of their election to accept such Offer pursuant to Section 7(a)(iii) below.

(iii) To accept an Offer, in whole or in part, such Holder must deliver a written notice to the Company prior to the end of the tenth (10th) Business Day after such Holder's receipt of the Offer Notice (the "Offer Period"), setting forth the portion of such Holder's Basic Amount that such Holder elects to purchase and, if such Holder shall elect to purchase all of its Basic Amount, the Undersubscription Amount, if any, that such Holder elects to purchase (in either case, the "Notice of Acceptance"). For the avoidance of doubt, in the event a Holder fails to timely deliver a Notice of Acceptance, such Holder shall be deemed to have declined to participate in such Subsequent Placement. If the Basic Amounts elected to be subscribed for by all Holders are less than the total of all of the Basic Amounts, then each Holder who has set forth an Undersubscription Amount in its Notice of Acceptance shall be entitled to purchase, in addition to the Basic Amounts subscribed for, the Undersubscription Amount it has elected to be subscribed for; provided, however, that if the Undersubscription Amounts elected to be subscribed for exceed the difference between the total of all the Basic Amounts and the Basic Amounts subscribed for (the "Available Undersubscription Amount"), each Holder who has elected to be subscribed for any Undersubscription Amount shall be entitled to purchase only that portion of the Available Undersubscription Amount as the Basic Amount of such Holder bears to the total Basic Amounts of all Holder that have elected to be subscribed for Undersubscription Amounts, subject to rounding by the Company to the extent its deems reasonably necessary. Notwithstanding anything to the contrary contained herein, if the Company desires to modify or amend the terms and conditions of the Offer in any material respect, prior to the expiration of the Offer Period, the Company may deliver to the Holders a new Offer Notice and the Offer Period shall expire on the second (2nd) Business Day after such Holder's receipt of such new Offer Notice.

A-12

---

TABLE OF CONTENTS

(iv) The Company shall have five (5) Business Days from the expiration of the Offer Period above (i) to offer, issue or sell all or any part of such Offered Securities as to which a Notice of Acceptance has not been given by the Holders (the “Refused Securities”) pursuant to a definitive agreement (the “Subsequent Placement Agreement”), but only upon terms and conditions (including, without limitation, unit prices and interest rates) that are not more favorable to the acquiring Person or Persons or less favorable to the Company than those set forth in the Offer Notice and (ii) to publicly announce (a) the execution of such Subsequent Placement Agreement, if any and (b) either (x) the consummation, or the expected consummation, of the transactions contemplated by such Subsequent Placement Agreement or (y) if a Subsequent Placement Agreement is executed, the termination of such Subsequent Placement Agreement, which shall be filed with the SEC on a Current Report on Form 8-K with such Subsequent Placement Agreement and any material documents contemplated therein filed as exhibits thereto.

(v) In the event the Company shall propose to sell less than all the Refused Securities (any such sale to be in the manner and on the terms specified in Section 7(a)(iv) above), then each Holder may, at its sole option and in its sole discretion, reduce the number or amount of the Offered Securities specified in its Notice of Acceptance to an amount that shall be not less than the number or amount of the Offered Securities that such Holder elected to purchase pursuant to Section 7(a)(iii) above multiplied by a fraction, (i) the numerator of which shall be the number or amount of Offered Securities the Company actually proposes to issue or sell (including Offered Securities to be issued or sold to Holders pursuant to Section 7(a)(iv) above prior to such reduction) and (ii) the denominator of which shall be the original amount of the Offered Securities. In the event that any Holder so elects to reduce the number or amount of Offered Securities specified in its Notice of Acceptance, the Company may not issue or sell more than the reduced number or amount of the Offered Securities unless and until such securities have again been offered to the Holders in accordance with Section 7(a)(ii) above.

(vi) Upon the closing of the issuance or sale of all or less than all of the Refused Securities, the Holders shall acquire from the Company, and the Company shall issue to the Holders, the number or amount of Offered Securities specified in the Notices of Acceptance, as reduced pursuant to Section 7(a)(iv) above if the Holders have so elected, upon the terms and conditions specified in the Offer. The purchase by the Holders of any Offered Securities is subject in all cases to the preparation, execution and delivery by the Company and the Holders of a purchase agreement relating to such Offered Securities reasonably satisfactory in form and substance to the Holders and their respective counsel; provided that, for the avoidance of doubt, this paragraph shall not create any obligation on the Company to amend or modify, or seek to amend or modify, any of the terms or provisions of the Subsequent Placement Agreement, or otherwise prohibit the Company from consummating the respective Subsequent Placement of Refused Securities in accordance with the applicable Subsequent Placement Agreement.

(vii) Any Offered Securities not acquired by the Holders or other Persons in accordance with Section 7(a)(iv) above may not be issued or sold until they are again offered to the Holders under the procedures specified in this Section 7(a).

(viii) The Company and the Holders agree that if any Holder elects to participate in the Offer, (x) neither the Subsequent Placement Agreement with respect to such Offer nor any other transaction documents related thereto (collectively, the “Subsequent Placement Documents”) shall include any term or provisions whereby any Holder shall be required to agree to any restrictions in trading as to any securities of the Company owned by such Holder prior to such Subsequent Placement and (y) the Holders shall be entitled to the same registration rights provided to other investors in the Subsequent Placement.

(ix) Notwithstanding anything to the contrary in this Section 7(a) and unless otherwise agreed to by the Holders, the Company shall either confirm in writing to the Holders that the transaction with respect to the Subsequent Placement has been abandoned or shall publicly disclose its intention to issue the Offered Securities, in either case in such a manner such that the Holders will not be in possession of material non-public information, by the fifteenth (15th) Business Day following delivery of the Offer Notice. If by the fifteenth (15th) Business Day following delivery of the Offer Notice no

A-13

---



TABLE OF CONTENTS

public disclosure regarding a transaction with respect to the Offered Securities has been made, and no notice regarding the abandonment of such transaction has been received by the Holders, such transaction shall be deemed to have been abandoned and the Holders shall not be deemed to be in possession of any material, non-public information with respect to the Company. Should the Company decide to pursue such transaction with respect to the Offered Securities, the Company shall provide each Holder with another Offer Notice and each Holder will again have the right of participation set forth in this Section 7(a). The Company shall not be permitted to deliver more than one such Offer Notice to the Holders in any 60 day period (other than the Offer Notices contemplated by the last sentence of Section 7(a)(iii) of this Certificate of Designations). Notwithstanding anything to the contrary herein, in no event shall delivery of any notice in accordance with the requirements of this Section 7(a) constitute or be deemed to constitute a breach of the Company's obligation not to provide material non-public information regarding the Company to any Holder or any other Person; provided the Company then complies with the applicable requirement to publicly disclose such material, nonpublic information pursuant to this Section 7(a)(ix).

(x) This Section 7(a) shall not apply in connection with the issuance or deemed issuance of any Common Stock by the Company: (A) under any employee benefit plan which has been approved by the Board, pursuant to which the Company's securities may be issued to any employee, officer or, director or consultant for services provided to the Company; (B) with respect to the Preferred Shares pursuant to the terms of this Certificate of Designations; (C) upon conversion, exercise or exchange of any Options or Convertible Securities which are outstanding on the day immediately preceding the Subscription Date, provided that such issuance of Common Stock upon exercise of such Options or Convertible Securities is made pursuant to the terms of such Options or Convertible Securities in effect on the date immediately preceding the Subscription Date and such Options or Convertible Securities are not amended, modified or changed on or after the Subscription Date to increase the number of such securities or to decrease the exercise price, exchange price or conversion price of such securities (other than in connection with stock splits or combinations) or to extend the term of such securities; or (D) securities issued pursuant to acquisitions or strategic transactions approved by a majority of the disinterested directors of the Company, provided that any such issuance shall only be to a Person which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities for the purpose of raising capital or to an entity whose primary business is investing in securities.

(b) Purchase Rights. In addition to any adjustments pursuant to Section 8 below, if at any time the Company grants, issues or sells any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property pro rata to all of the record holders of any class of Common Stock (the "Purchase Rights"), then each Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which such Holder could have acquired if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of all the Preferred Shares (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares) held by such Holder immediately prior to the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of shares of Common Stock are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, to the extent that such Holder's right to participate in any such Purchase Right would result in such Holder and the other Attribution Parties exceeding the Maximum Percentage, then such Holder shall not be entitled to participate in such Purchase Right to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Purchase Right (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for such Holder until the earlier of (i) such time or times, if ever, as its right thereto would not result in such Holder and the other Attribution Parties exceeding the Maximum Percentage) and (ii) the expiration date, the termination date, the maturity date or other similar provision of such Purchase Rights, at which time or times such Holder shall be granted such right (and any Purchase Right granted, issued or sold on such initial Purchase Right or on any subsequent Purchase Right to be held similarly in abeyance) to the same extent as if there had been no such limitation.

A-14

TABLE OF CONTENTS

(c) Other Corporate Events. In addition to and not in substitution for any other rights hereunder, prior to the consummation of any Fundamental Transaction pursuant to which holders of shares of Common Stock are entitled to receive securities or other assets with respect to or in exchange for shares of Common Stock (a “Corporate Event”), the Company shall make appropriate provision to ensure that each Holder will thereafter have the right to receive upon a conversion of all the Preferred Shares held by such Holder (i) in addition to the shares of Common Stock receivable upon such conversion, such securities or other assets to which such Holder would have been entitled with respect to such shares of Common Stock had such shares of Common Stock been held by such Holder upon the consummation of such Corporate Event (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares contained in this Certificate of Designations) or (ii) in lieu of the shares of Common Stock otherwise receivable upon such conversion, such securities or other assets received by the holders of shares of Common Stock in connection with the consummation of such Corporate Event in such amounts as such Holder would have been entitled to receive had the Preferred Shares held by such Holder initially been issued with conversion rights for the form of such consideration (as opposed to shares of Common Stock) at a conversion rate for such consideration commensurate with the Conversion Rate. Provision made pursuant the proceeding sentence shall be in a form and substance satisfactory to the Holder. The provisions of this Section 7 shall apply similarly and equally to successive Corporate Events and shall be applied without regard to any limitations on the conversion or redemption of the Preferred Shares contained in this Certificate of Designations.

#### 8. Rights Upon Issuance of Other Securities.

(a) Adjustment of Conversion Price upon Subdivision or Combination of Common Stock. Without limiting any provision of Section 7 or Section 18, if the Company at any time on or after the Subscription Date subdivides (by any stock split, stock dividend, stock combination, recapitalization or other similar transaction) one or more classes of its outstanding shares of Common Stock into a greater number of shares, the Conversion Price in effect immediately prior to such subdivision will be proportionately reduced. Without limiting any provision of Section 7 or Section 18, if the Company at any time on or after the Subscription Date combines (by any stock split, stock dividend, stock combination, recapitalization or other similar transaction) one or more classes of its outstanding shares of Common Stock into a smaller number of shares, the Conversion Price in effect immediately prior to such combination will be proportionately increased. Any adjustment pursuant to this Section 8(a) shall become effective immediately after the effective date of such subdivision or combination. If any event requiring an adjustment under this Section 8(a) occurs during the period that a Conversion Price is calculated hereunder, then the calculation of such Conversion Price shall be adjusted appropriately to reflect such event.

(b) Holder’s Right of Adjusted Conversion Price. In addition to and not in limitation of the other provisions of this Section 8(b), at any time any Preferred Shares remain outstanding, if the Company in any manner issues or sells or enters into any agreement to issue or sell, any Common Stock, Options or Convertible Securities (any such securities, “Variable Price Securities”) after the Subscription Date that are issuable pursuant to such agreement or convertible into or exchangeable or exercisable for shares of Common Stock pursuant to such Options or Convertible Securities, as applicable, 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 exclusive of such formulations reflecting customary anti-dilution provisions (such as share splits, share combinations, share dividends and similar transactions) (each of the formulations for such variable price being herein referred to as, the “Variable Price”), the Company shall provide written notice thereof via electronic mail and overnight courier (next day delivery selected) to each Holder on the date of such agreement and/or the issuance of such shares of Common Stock, Convertible Securities or Options, as applicable; provided, however, that if the applicable Variable Price Securities are shares of Common Stock sold pursuant to the ATM Agreement (as defined below), and (i) if the difference between the Variable Price of such shares of Common Stock sold pursuant to the ATM Agreement (the “ATM Shares”) and the lower of (A) last Variable Price communicated to the Holders or (B) the Conversion Price (such lower price, the “Lowest Known Price”) is less than 8%, then the Company shall provide written notice to each Holder on the last Business Day of each month in which such ATM Shares are sold, and (ii) if the difference between the Variable Price of such ATM Shares and the Lowest Known Price is equal to or greater than 8%, then the Company shall provide

TABLE OF CONTENTS

written notice to each Holder on the date of sale of such ATM Shares. From and after the date the Company enters into such agreement or issues any such Variable Price Securities, each Holder shall have the right, but not the obligation, in its sole discretion to substitute the Variable Price for the Conversion Price upon conversion of the Preferred Shares by designating in the Conversion Notice delivered upon any conversion of Preferred Shares that solely for purposes of such conversion such Holder is relying on the Variable Price rather than the Conversion Price then in effect; provided, however, that if the Conversion Notice does not reference a Variable Price and the lowest Variable Price is less than the Conversion Price, then such lowest Variable Price shall be automatically substituted for the Conversion Price. A Holder's election to rely on a Variable Price for a particular conversion of Preferred Shares shall not obligate such Holder to rely on a Variable Price for any future conversions of Preferred Shares. For clarity, any shares of Common Stock sold following the Subscription Date pursuant to the Company's existing At Market Issuance Sales Agreement (the "ATM Agreement"), dated June 13, 2018, by and between the Company and B. Riley FBR, Inc. and Oppenheimer & Co. Inc., or any similar or replacement agreement, shall constitute Variable Price Securities with a Variable Price equal to the lowest price per share at which a share of Common Stock is sold pursuant to the ATM Agreement. For clarity, if the Company in any manner issues or sells or enters into any agreement to issue or sell, any Common Stock, Options or Convertible Securities at a fixed price (and in the case of Options or Convertible Securities, the exercise price or conversion price is also set at a fixed price), which may include customary adjustments for share splits, share combinations, share dividends and similar transactions, any such securities shall not be deemed Variable Price Securities for any purpose hereunder.

(c) Calculations. All calculations under this Section 8 shall be made by rounding to the nearest cent or the nearest 1/100th of a share, as applicable. The sales price of any Variable Price Security (including, for clarity, shares of Common Stock sold pursuant to the ATM Agreement) shall be equal to the gross sales price before deducting any sales commissions or broker fees. The number of shares of Common Stock outstanding at any given time shall not include shares owned or held by or for the account of the Company, and the disposition of any such shares shall be considered an issue or sale of Common Stock.

(d) Voluntary Adjustment by Company. The Company may at any time any Preferred Shares remain outstanding reduce the then current Conversion Price to any amount and for any period of time deemed appropriate by the Board.

#### 9. Installment Conversion or Installment Redemption.

(a) General. On each applicable Installment Date, provided there has been no Equity Conditions Failure, the Company shall pay to each Holder the applicable Installment Amount due on such date by converting such Installment Amount in accordance with this Section 9 (an "Installment Conversion"); provided, however, that the Company may, at its option following notice to each Holder as set forth below, pay the Installment Amount by redeeming such Installment Amount in cash (an "Installment Redemption") or by any combination of an Installment Conversion and an Installment Redemption so long as all of the outstanding applicable Installment Amount due on any Installment Date shall be converted and/or redeemed by the Company on the applicable Installment Date, subject to the provisions of this Section 9. On or prior to the date which is the eleventh (11th) Trading Day prior to each Installment Date, but not earlier than the fifteenth (15th) Trading Day prior to the applicable Installment Date (each, an "Installment Notice Due Date"), the Company shall deliver written notice (each, an "Installment Notice" and the date all Holders receive such notice is referred to as to the "Installment Notice Date"), to each Holder and such Installment Notice shall (i) either (A) confirm that the applicable Installment Amount of such Holder shall be converted in whole pursuant to an Installment Conversion or (B) (1) state that the Company elects to redeem for cash, or is required to redeem for cash in accordance with the provisions of this Certificate of Designations, in whole or in part, the applicable Installment Amount pursuant to an Installment Redemption and (2) specify the portion of such Installment Amount which the Company elects or is required to redeem pursuant to an Installment Redemption (such amount to be redeemed in cash, the "Installment Redemption Amount") and the portion of the applicable Installment Amount, if any, with respect to which the Company will, and is permitted to, effect an Installment Conversion (such amount of the applicable Installment Amount so specified to be so converted pursuant to this Section 9 is referred to herein as the "Installment Conversion Amount"), which amounts when added together, must equal the entire applicable Installment Amount

A-16

TABLE OF CONTENTS

and (ii) if the applicable Installment Amount is to be paid, in whole or in part, pursuant to an Installment Conversion, certify that there is not then an Equity Conditions Failure as of the applicable Installment Notice Date. Each Installment Notice shall be irrevocable. If the Company does not timely deliver an Installment Notice in accordance with this Section 9 with respect to a particular Installment Date, then the Company shall be deemed to have delivered an irrevocable Installment Notice confirming an Installment Conversion of the entire Installment Amount payable on such Installment Date and shall be deemed to have certified that there is not then an Equity Conditions Failure in connection with such Installment Conversion. The applicable Installment Conversion Amount (whether set forth in the applicable Installment Notice or by operation of this Section 9) shall be converted in accordance with Section 9(b) and the applicable Installment Redemption Amount shall be redeemed in accordance with Section 9(c).

(b) Mechanics of Installment Conversion. Subject to Section 4(d), if the Company delivers an Installment Notice or is deemed to have delivered an Installment Notice certifying that such Installment Amount is being paid, in whole or in part, in an Installment Conversion in accordance with Section 9(a), then the remainder of this Section 9(b) shall apply. The applicable Installment Conversion Amount, if any, shall be converted on the applicable Installment Date at the applicable Installment Conversion Price and the Company shall, on such Installment Date, deliver to each Holder's account with DTC such shares of Common Stock issued upon such conversion (subject to the reduction contemplated by the immediately following sentence and, if applicable, the penultimate sentence of this Section 9(b)), provided that the Equity Conditions are then satisfied (or waived in writing by such Holder) on such Installment Date and an Installment Conversion is not otherwise prohibited under any other provision of the Certificate of Designations. If the Company confirmed (or is deemed to have confirmed by operation of Section 9(a)) the conversion of the applicable Installment Conversion Amount, in whole or in part, and there was no Equity Conditions Failure as of the applicable Installment Notice Date (or is deemed to have certified that the Equity Conditions in connection with any such conversion have been satisfied by operation of Section 9(a)) but an Equity Conditions Failure occurred between the applicable Installment Notice Date and any time through the applicable Installment Date (the "Interim Installment Period"), the Company shall provide each Holder a subsequent notice to that effect. If there is an Equity Conditions Failure (which is not waived in writing by such Holder) during such Interim Installment Period, then, at the option of such Holder designated in writing to the Company, such Holder may require the Company to do any one or more of the following (but without duplication): (i) the Company shall redeem all or any part designated by such Holder of the unconverted Installment Conversion Amount (such designated amount is referred to as the "Designated Redemption Amount") and the Company shall pay to such Holder within three (3) days of such Installment Date, by wire transfer of immediately available funds, an amount in cash equal to 108% of such Designated Redemption Amount, and/or (ii) the Installment Conversion shall be null and void with respect to all or any part designated by such Holder of the unconverted Installment Conversion Amount and such Holder shall be entitled to all the rights of a holder of the Preferred Shares with respect to such designated part of the Installment Conversion Amount; provided, however, the Conversion Price for such Designated Redemption Amount shall thereafter be adjusted to equal the Installment Conversion Price (determined as if the date of such designation were an Installment Date) and conversions required by this Section 9(b) shall be made in accordance with the provisions of Section 4(c). In the event that the sole cause of an Equity Conditions Failure during the applicable Equity Conditions Measuring Period was due to the Company's inability to deliver to such Holder Common Stock due to Section 4(d)(i), which constitutes an Equity Conditions Failure pursuant to clause (iii) of the definition of "Equity Conditions", then, the Company may, at its option, elect to either (x) pay (i) in cash the portion of the Installment Amount the payment of which would otherwise result in an Equity Conditions Failure due to the Company's inability to deliver to such Holder shares of Common Stock due to Section 4(d)(i) (irrespective of any prior election or notice to pay such amount by converting all or some of the applicable Installment Amount into Common Stock) pursuant to an Installment Redemption as if it had elected in the applicable Installment Notice to pay the applicable Installment Amount pursuant to an Installment Redemption and (ii) the remainder of such Installment Amount in an Installment Conversion in accordance with this Section 9(b) or (y) by (i) deferring the portion of such Installment Payment the payment of which would otherwise result in an Equity Conditions Failure due to the Company's inability to deliver to such Holder shares of Common Stock due to Section 4(d)(i) to the immediately subsequent Installment, if any, and (ii) paying the

A-17

**TABLE OF CONTENTS**

remainder of such Installment Amount in an Installment Conversion in accordance with this Section 9(b) and the Company shall deliver a written notice to the Holders setting forth its election pursuant to this proviso at least one (1) Trading Day prior to the applicable Installment Date. For the avoidance of doubt, subject to Section 9(f), the Holder may waive the Equity Conditions Failure and receive the Installment Conversion Amount through the conversion of the Installment Amount in an Installment Conversion. If the Company fails to redeem any Designated Redemption Amount by the third (3rd) day following the applicable Installment Date by payment of such amount by such date for any reason (including, without limitation, to the extent such payment is prohibited pursuant to the DGCL), then such Holder shall have the rights set forth in Section 12(a) as if the Company failed to pay the applicable Installment Redemption Price (as defined below) and all other rights under this Certificate of Designations (including, without limitation, such failure constituting a Triggering Event described in Section 5(a)(v)). Notwithstanding anything to the contrary in this Section 9(b), but subject to Section 4(d), until the Company delivers Common Stock representing the Installment Conversion Amount to such Holder, the Installment Conversion Amount may be converted by such Holder into Common Stock pursuant to Section 4. In the event that a Holder elects to convert the Installment Conversion Amount prior to the applicable Installment Date as set forth in the immediately preceding sentence, the Installment Conversion Amount so converted shall be deducted from the Installment Amount(s) of such Holder relating to the applicable Installment Date(s) as set forth in the applicable Conversion Notice. The Company shall pay any and all actual transfer, stamp, issuance and similar taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock in any Installment Conversion hereunder; provided, however, that if any such tax is due solely because the Holder requested such shares to be issued in a name other than the Holder's name, then the Holder will pay such tax.

(c) **Mechanics of Installment Redemption.** If the Company elects or is required to effect an Installment Redemption, in whole or in part, in accordance with Section 9(a), then the Installment Redemption Amount, if any, shall be redeemed by the Company in cash on the applicable Installment Date by wire transfer to each Holder of immediately available funds in an amount equal to 108% of the applicable Installment Redemption Amount (the "Installment Redemption Price"). If the Company fails to redeem such Installment Redemption Amount on such Installment Date by payment of the Installment Redemption Price for any reason (including, without limitation, to the extent such payment is prohibited pursuant to the DGCL), then, at the option of such Holder designated in writing to the Company (any such designation shall be a "Conversion Notice" for purposes of this Certificate of Designations), such Holder may require the Company to convert all or any part of the Installment Redemption Amount at the Installment Conversion Price (determined as if the date of such designation were an Installment Date). Notwithstanding anything to the contrary in this Section 9(c), but subject to Section 4(d), until the Installment Redemption Price (together with any Late Charges thereon) is paid in full, the Installment Redemption Amount (together with any Late Charges thereon) may be converted, in whole or in part, by a Holder into Common Stock pursuant to Section 4. In the event a Holder elects to convert all or any portion of the Installment Redemption Amount prior to the applicable Installment Date as set forth in the immediately preceding sentence, the Installment Redemption Amount so converted shall be deducted from the Installment Amounts relating to the applicable Installment Date(s) as set forth in the applicable Conversion Notice. Redemptions required by this Section 9(c) shall be made in accordance with the provisions of Section 12.

(d) **Deferred Installment Amount.** Notwithstanding any provision of this Section 9(d) to the contrary, each Holder may, at its option and in its sole discretion, deliver a written notice to the Company no later than the second (2nd) Trading Day immediately prior to the applicable Installment Date electing to have the payment of all or any portion of an Installment Amount of such Holder payable on such Installment Date deferred (such amount deferred, the "Deferral Amount", and such deferral, each a "Deferral") until any subsequent Installment Date selected by such Holder, in its sole discretion, in which case, the Deferral Amount shall be added to, and become part of, such subsequent Installment Amount. Any notice delivered by such Holder pursuant to this Section 9(d) shall set forth (i) the Deferral Amount requested by such Holder and (ii) the date on which such Holder requests that such Deferral Amount shall now be payable. Notwithstanding anything herein to the contrary, in no event shall a Holder be entitled to elect deferral pursuant to this Section 9(d) if such deferral would defer an Installment Amount beyond the Maturity Date.

**TABLE OF CONTENTS**

(e) Acceleration of Installment Amounts. Notwithstanding any provision of this Section 9 to the contrary, but subject to Section 4(d), with respect to any given Installment Date (the “Current Installment Date”), during the period commencing on the Installment Notice Due Date immediately prior to such Current Installment Date and ending on the Trading Day immediately prior to the next Installment Date (each, an “Installment Period”), each Holder may elect, at its option and in its sole discretion, at one or more times in such Installment Period, to convert other Preferred Shares (each, an “Acceleration”, and such aggregate number of Preferred Shares in an Acceleration, each, an “Acceleration Amount”), in whole or in part, at the Installment Conversion Price of such Current Installment Date in accordance with the conversion procedures set forth in Section 4 hereunder, mutatis mutandis. Notwithstanding the foregoing, with respect to any given Installment Period, the Holder may not elect to effect any Acceleration during such Installment Period if (i) the Conversion Amount of the aggregate number of Preferred Shares subject to Acceleration in such Installment Period exceeds in the aggregate 300% of the Installment Amount (not including any Deferral Amounts or Acceleration Amounts) for such Current Installment Date (which, for the avoidance of doubt, assuming the Company elects an Installment Conversion for the full Installment Amount, could result in an Installment Conversion and Accelerations that, collectively, represent 400% of the Installment Amount (not including any Deferral Amounts or Acceleration Amounts)), or (ii) the Conversion Amount of the aggregate number of Preferred Shares subject to prior Accelerations exceeds in the aggregate twelve (12) times the Installment Amount (not including any Deferral Amounts or Acceleration Amounts) for such Current Installment Date.

(f) Waiver of Equity Conditions Failure. Notwithstanding anything herein to the contrary, in no event shall a Holder be entitled to waive an Equity Conditions Failure due to the failure of the Equity Conditions set forth in clauses (iii), (iv) and/or (ix)(C) of such definition.

10. Noncircumvention. The Company hereby covenants and agrees that the Company will not, by amendment of its certificate of incorporation, bylaws or through any reorganization, transfer of assets, consolidation, merger, scheme of arrangement, dissolution, issue or sale of securities, or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Certificate of Designations, and will at all times in good faith carry out all the provisions of this Certificate of Designations and take all action as may be required to protect the rights of the Holders hereunder. Without limiting the generality of the foregoing or any other provision of this Certificate of Designations, the Company (a) shall not increase the par value of any shares of Common Stock receivable upon the conversion of any Preferred Shares above the Conversion Price then in effect, (b) shall take all such actions as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and non-assessable shares of Common Stock upon the conversion of Preferred Shares and (c) shall, so long as any Preferred Shares are outstanding, take all action reasonably necessary to reserve and keep available out of its authorized and unissued shares of Common Stock, solely for the purpose of effecting the conversion of the Preferred Shares at the Conversion Price then in effect, the Required Reserve Amount (as defined in Section 11(a)).

Notwithstanding anything herein to the contrary, if after the date that is one hundred twenty (120) calendar days after the Initial Issuance Date, each Holder is not permitted to convert such Holder’s Preferred Shares in full for any reason (other than pursuant to restrictions set forth in Section 4(d)(i) hereof), the Company shall use its reasonable best efforts to promptly remedy such failure, including, without limitation, seeking to obtain such consents or approvals as necessary to effect such conversion into shares of Common Stock.

11. Authorized Shares.

(a) Reservation. So long as any Preferred Shares remain outstanding, the Company shall at all times reserve at least 150% of the number of shares of Common Stock as shall from time to time be necessary to effect the conversion of the Preferred Shares that then remain outstanding (without regard to any limitations on conversions), including without limitation, pursuant to Installment Conversions, Triggering Event Conversion, if any, and Accelerations (the “Required Reserve Amount”). The Required Reserve Amount (including, without limitation, each increase in the number of shares so reserved) shall be allocated pro rata among the Holders based on the number of the Preferred Shares held by each Holder on the Initial Issuance Date or increase in the number of reserved shares, as the case may be (the “Authorized Share Allocation”). In the event that a Holder shall sell or otherwise transfer any of such Holder’s Preferred Shares, each transferee shall be allocated a pro rata portion of such Holder’s

**TABLE OF CONTENTS**

Authorized Share Allocation. Any shares of Common Stock reserved and allocated to any Person which ceases to hold any Preferred Shares shall be allocated to the remaining Holders, pro rata based on the number of the Preferred Shares then held by the Holders.

(b) Insufficient Authorized Shares. If, notwithstanding Section 11(a) and not in limitation thereof, while any of the Preferred Shares remain outstanding the Company does not have a sufficient number of authorized and unreserved shares of Common Stock to satisfy its obligation to reserve for issuance upon conversion of the Preferred Shares at least a number of shares of Common Stock equal to the Required Reserve Amount (an “Authorized Share Failure”), then the Company shall immediately take all action necessary to increase the Company’s authorized shares of Common Stock to an amount sufficient to allow the Company to reserve the Required Reserve Amount for the Preferred Shares then outstanding. Without limiting the generality of the foregoing sentence, as soon as practicable after the date of the occurrence of an Authorized Share Failure, but in no event later than seventy-five (75) days after the occurrence of such Authorized Share Failure, the Company shall either (x) obtain the written consent of its stockholders for the approval of an increase in the number of authorized shares of Common Stock and provide each stockholder with an information statement with respect thereto or (y) seek to obtain stockholder approval at a meeting of its stockholders for an increase in the number of authorized shares of Common Stock and, in each case, file an amendment to the Company’s Certificate of Incorporation making effective the necessary increase in the number of authorized shares of Common Stock within such seventy-five (75) day period. In connection with such meeting, the Company shall provide each stockholder with a proxy statement and shall use its best efforts to solicit its stockholders’ approval of such increase in authorized shares of Common Stock and to cause its board of directors to recommend to the stockholders that they approve such proposal. Notwithstanding the foregoing, if during any such time of an Authorized Share Failure, the Company is able to obtain the written consent of a majority of the shares of its issued and outstanding Common Stock to approve the increase in the number of authorized shares of Common Stock, the Company may satisfy this obligation by obtaining such consent, submitting for filing with the SEC an Information Statement on Schedule 14C and filing an amendment to the Company’s Certificate of Incorporation making effective the necessary increase in the number of authorized shares of Common Stock. In the event that the Company is prohibited from issuing shares of Common Stock to a Holder upon any conversion due to the failure by the Company to have sufficient shares of Common Stock available out of the authorized but unissued shares of Common Stock (such unavailable number of shares of Common Stock, the “Authorized Failure Shares”), in lieu of delivering such Authorized Failure Shares to such Holder, the Company shall pay cash within five (5) Trading Days in exchange for the redemption of such portion of the Conversion Amount convertible into such Authorized Failure Shares at a price equal to the sum of (i) the product of (x) such number of Authorized Failure Shares and (y) the highest sale price of the Common Stock on the attempted Conversion Date; and (ii) to the extent such Holder purchases (in an open market transaction or otherwise) shares of Common Stock to deliver in satisfaction of a sale by such Holder of Authorized Failure Shares, any reasonable and documented brokerage commissions and other out-of-pocket expenses, if any, of such Holder incurred in connection therewith. For the avoidance of doubt, to the extent that the Company makes a payment contemplated by the foregoing sentence, the applicable portion of the Preferred Shares to which the Authorized Failure Shares applied shall no longer be outstanding.

12. Redemptions.

(a) General. If a Holder has submitted a Triggering Event Redemption Notice in accordance with Section 5(b), the Company shall deliver the applicable Triggering Event Redemption Price to such Holder in cash within two (2) Business Days after the Company’s receipt of such Holder’s Triggering Event Redemption Notice. If a Holder has submitted a Change of Control Redemption Notice in accordance with Section 6(b), the Company shall deliver the applicable Change of Control Redemption Price to such Holder in cash concurrently with the consummation of such Change of Control if such notice is received prior to the consummation of such Change of Control and within five (5) Business Days after the Company’s receipt of such notice otherwise. The Company shall deliver the applicable Installment Redemption Price to each Holder in cash on the applicable Installment Date. If a Holder has submitted a Maturity Redemption Notice in accordance with Section 13 below, the Company shall deliver the applicable Maturity Redemption Price to such Holder on the applicable Maturity Redemption Date.

TABLE OF CONTENTS

Notwithstanding anything herein to the contrary, in connection with any redemption hereunder at a time a Holder is entitled to receive a cash payment under any other provision of this Certificate of Designations, at the option of such Holder delivered in writing to the Company, the applicable Redemption Price hereunder shall be increased by the amount of such cash payment owed to such Holder under such other provision of this Certificate of Designations and, upon payment in full or conversion in accordance herewith, shall satisfy the Company's payment obligation under such other provision of this Certificate of Designations. In the event of a redemption of less than all of the Preferred Shares, the Company shall promptly cause to be issued and delivered to such Holder a new Preferred Share Certificate (in accordance with Section 21) (or evidence of the creation of a new Book-Entry) representing the number of Preferred Shares which have not been redeemed. In the event that the Company does not pay the applicable Redemption Price to a Holder within the time period required for any reason (including, without limitation, to the extent such payment is prohibited pursuant to the DGCL), at any time thereafter and until the Company pays such unpaid Redemption Price in full, such Holder shall have the option, in lieu of redemption, to require the Company to promptly return to such Holder all or any of the Preferred Shares that were submitted for redemption and for which the applicable Redemption Price (together with any Late Charges thereon) has not been paid. Upon the Company's receipt of such notice, (x) the applicable Redemption Notice shall be null and void with respect to such Preferred Shares, (y) the Company shall promptly and in any event within five (5) Trading Days return the applicable Preferred Share Certificate, or issue a new Preferred Share Certificate (in accordance with Section 21(d)), to such Holder, (unless the Preferred Shares are held in Book-Entry form, in which case the Company shall deliver evidence to such Holder that a Book-Entry for such Preferred Shares then exists) and in each case the Additional Amount of such Preferred Shares shall be increased by an amount equal to the difference between (1) the applicable Redemption Price (as the case may be, and as adjusted pursuant to this Section 12, if applicable) minus (2) the Stated Value portion of the Conversion Amount submitted for redemption and (z) the Conversion Price of such Preferred Shares shall be automatically adjusted with respect to each conversion effected thereafter by such Holder to the lowest of (A) the Conversion Price as in effect on the date on which the applicable Redemption Notice is voided, (B) 85% of the lowest Closing Bid Price of the Common Stock during the period beginning on and including the date on which the applicable Redemption Notice is delivered to the Company and ending on and including the date on which the applicable Redemption Notice is voided, and (C) 85% of the quotient of (I) the sum of the five (5) lowest VWAPs of the Common Stock during the twenty (20) consecutive Trading Day period ending and including the Trading Day immediately preceding the applicable Conversion Date divided by (II) five (5) (it being understood and agreed that all such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination or other similar transaction during such period). For the avoidance of doubt, if the Conversion Price is subject to adjustment pursuant to the immediately preceding clause (z), the Conversion Price shall not also be subject to adjustment pursuant to Section 4(e). A Holder's delivery of a notice voiding a Redemption Notice and exercise of its rights following such notice shall not affect the Company's obligations to make any payments of Late Charges which have accrued prior to the date of such notice with respect to the Preferred Shares subject to such notice.

(b) Redemption by Multiple Holders. Upon the Company's receipt of a Redemption Notice from any Holder for redemption or repayment as a result of an event or occurrence substantially similar to the events or occurrences described in Section 5(b) or Section 6(b), the Company shall promptly, but no later than one (1) Business Day of its receipt thereof, forward to each other Holder by electronic mail a copy of such notice. If the Company receives one or more Redemption Notices, during the seven (7) Business Day period beginning on and including the date which is three (3) Business Days prior to the Company's receipt of the initial Redemption Notice and ending on and including the date which is three (3) Business Days after the Company's receipt of the initial Redemption Notice and the Company is unable to redeem all amounts designated in such initial Redemption Notice and such other Redemption Notices received during such seven (7) Business Day period, then the Company shall redeem a pro rata amount from each Holder based on the Stated Value of the Preferred Shares submitted for redemption pursuant to such Redemption Notices received by the Company during such seven (7) Business Day period.

A-21



**TABLE OF CONTENTS**

13. Holder Optional Redemption after Maturity Date. At any time from and after the tenth (10th) Business Day prior to the Maturity Date, any Holder may by delivery of written notice thereof to the Company require the Company to redeem (a “Maturity Redemption”) all or any number of Preferred Shares then held by such Holder. The Company shall then deliver a written notice (the “Maturity Redemption Notice”) to such Holder within two (2) Trading Days of receipt thereof (the date the Company delivers such notice, a “Maturity Redemption Notice Date”) electing to redeem such remaining Preferred Shares either (i) by paying cash at a purchase price equal to 108% of the Conversion Amount of such Preferred Shares or (ii) provided that no Equity Conditions Failure occurs from the Maturity Redemption Notice Date through the Maturity Redemption Date (as defined below), by paying a number of Common Stock calculated by dividing the Conversion Amount of such remaining Preferred Shares by the Installment Conversion Price determined as if the Maturity Redemption Date was an Installment Date (the “Maturity Redemption Price”). If the Company elects to redeem such remaining Preferred Shares in cash, such cash shall be paid on the same day as the delivery of the Maturity Redemption Notice (such date, in such event, being the “Maturity Redemption Date”). If the Company elects instead to redeem such remaining Preferred Shares in shares of Common Stock in accordance with clause (ii) of the second sentence of this Section 13, the Maturity Redemption Notice shall state the date the Company is required to pay to such Holder such Maturity Redemption Price (such date, in such case, being the Maturity Redemption Date), which date shall be on the twelfth (12th) Trading Day following the Maturity Redemption Notice Date. Redemptions required by this Section 13 shall be made in accordance with the provisions of Section 12.

14. Voting Rights. Holders shall have no voting rights, except on matters required by law (including without limitation, the DGCL) or by this Certificate of Designations to be submitted to a class vote of the holders of the Preferred Shares. To the extent that under the DGCL the vote of the holders of the Preferred Shares, voting separately as a class or series, as applicable, is required to authorize a given action of the Company, the affirmative vote or consent of the Required Holders of the shares of the Preferred Shares, voting together in the aggregate and not in separate series unless required under the DGCL, represented at a duly held meeting at which a quorum is presented or by written consent of the Required Holders (except as otherwise may be required under the DGCL), voting together in the aggregate and not in separate series unless required under the DGCL, shall constitute the approval of such action by both the class or the series, as applicable. Subject to Section 4(d), to the extent that under the DGCL holders of the Preferred Shares are entitled to vote on a matter with holders of shares of Common Stock, voting together as one class, each Preferred Share shall entitle the holder thereof to cast that number of votes per share as is equal to the number of shares of Common Stock into which it is then convertible (subject to the ownership limitations specified in Section 4(d) hereof) on the record date for determining the stockholders of the Company eligible to vote on such matters as the date as of which the Conversion Price is calculated. Holders of the Preferred Shares shall be entitled to written notice of all stockholder meetings or written consents (and copies of proxy materials and other information sent to stockholders) with respect to which they would be entitled to vote, which notice would be provided pursuant to the Company’s bylaws and the DGCL.

15. Covenants.

(a) Restriction on Transfer of Assets. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, sell, lease, license, assign, transfer, spin-off, split-off, close, convey or otherwise dispose of any assets or rights of the Company or any Subsidiary owned or hereafter acquired whether in a single transaction or a series of related transactions, other than (i) sales, leases, licenses, assignments, transfers, conveyances and other dispositions of such assets or rights by the Company and its Subsidiaries in the ordinary course of business consistent with its past practice, (ii) sales of inventory and product in the ordinary course of business or (iii) sales, leases, licenses, assignments, transfers, conveyances and other dispositions of such assets or rights by the Company and/or its wholly-owned Subsidiaries to the Company and/or any of its wholly-owned Subsidiaries.

(b) Change in Nature of Business. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, engage in any material line of business substantially different from those lines of business conducted by or publicly contemplated to be conducted by the Company and each of its Subsidiaries on the Subscription Date or any business substantially related or incidental thereto. The Company shall not, and the Company shall cause each of its Subsidiaries to not, directly or indirectly, modify its or their corporate structure or purpose.



**TABLE OF CONTENTS**

(c) Preservation of Existence, Etc. The Company shall maintain and preserve, and cause each of its Subsidiaries to maintain and preserve, its existence, rights and privileges, and become or remain, and cause each of its Subsidiaries to become or remain, duly qualified and in good standing in each jurisdiction in which the character of the properties owned or leased by it or in which the transaction of its business makes such qualification necessary, except as could not reasonably be expected to result in a Material Adverse Effect.

(d) Maintenance of Properties, Etc. The Company shall maintain and preserve, and cause each of its Subsidiaries to maintain and preserve, all of its properties which are necessary or useful in the proper conduct of its business in good working order and condition, ordinary wear and tear excepted, and comply, and cause each of its Subsidiaries to comply, at all times with the provisions of all leases to which it is a party as lessee or under which it occupies property, except as could not reasonably be expected to result in a Material Adverse Effect.

(e) Maintenance of Intellectual Property. The Company will, and will cause each of its Subsidiaries to, take all action reasonably necessary or advisable to maintain all of the Intellectual Property Rights of the Company and/or any of its Subsidiaries that are necessary or material to the conduct of its business in full force and effect, except as could not reasonably be expected to result in a Material Adverse Effect.

(f) Maintenance of Insurance. The Company shall maintain, and cause each of its Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations (including, without limitation, comprehensive general liability, hazard, rent and business interruption insurance) with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering such risks as is required by any governmental authority having jurisdiction with respect thereto or as is carried generally in accordance with sound business practice by companies in similar businesses similarly situated, except as could not reasonably be expected to result in a Material Adverse Effect.

(g) Transactions with Affiliates. The Company shall not, nor shall it permit any of its Subsidiaries to, enter into, renew, extend or be a party to, any transaction or series of related transactions (including, without limitation, the purchase, sale, lease, transfer or exchange of property or assets of any kind or the rendering of services of any kind) with any Affiliate, except in the ordinary course of business in a manner and to an extent consistent with past practice or otherwise necessary or desirable for the prudent operation of its business, in each case, for fair consideration and on terms no less favorable to it or its Subsidiaries than would be obtainable in a comparable arm's length transaction with a Person that is not an Affiliate thereof.

(h) Restricted Issuances.

(i) The Company shall not, directly or indirectly, without the prior written consent of the Required Holders of the Preferred Shares then outstanding, (A) issue any Preferred Shares (other than as contemplated by this Certificate of Designations) or (B) issue any other securities that would cause a breach or default under this Certificate of Designations.

(ii) For so long as any Preferred Shares are outstanding, except with the prior approval of the Required Holders (whether at a duly called meeting or by written consent), the Company shall not, and shall not permit or suffer its Subsidiaries to, incur Indebtedness or enter into any other agreement, contract or understanding, if such Indebtedness, agreement, contract or understanding prohibits the Company from making any cash redemptions of the Preferred Shares or cash payments on or in respect of the Preferred Shares; provided that no such approval shall be required for incurring (a) trade payables in the ordinary course of business consistent with past practice, or (b) Indebtedness incurred by special purpose Subsidiaries created by the Company for the purpose of financing individual projects undertaken by the Company for the direct benefit of specific customers of the Company, including without limitation FuelCell Energy Finance, LLC and any subsidiaries thereof; provided the Company provides three (3) Business Days' notice to the Holders prior to incurring such Indebtedness (such Indebtedness described in this proviso, "Permitted Indebtedness"). Notwithstanding anything in this Certificate of Designations to the contrary, the Company and its Subsidiaries shall be permitted to incur Permitted Indebtedness.

A-23

---

TABLE OF CONTENTS

16. Stockholder Approval.

(a) The Company shall provide to each stockholder entitled to vote at a special meeting or the next annual meeting of stockholders of the Company (as applicable, the “Stockholder Meeting”), which shall be held as soon as reasonably possible following the mailing of the proxy statement to the stockholders of the Company in respect thereof (the “Approval Proxy Statement”), a copy of the Approval Proxy Statement, at the expense of the Company, soliciting each such stockholder’s affirmative vote at the Stockholder Meeting for approval of a proposal providing for issuance of the maximum number of shares of Common Stock issuable upon conversion of the Preferred Shares, in each case in compliance with the rules and regulations of the Principal Market, the Certificate of Incorporation of the Company, the Bylaws of the Company and applicable law (collectively, the “Stockholder Approval”). In connection with the Stockholder Meeting, and in no event later than February 15, 2019, the Company shall, in consultation with the Holders, prepare and file with the SEC, the preliminary Approval Proxy Statement and related proxy materials in compliance with Section 14 of the 1934 Act. As reasonably promptly as practicable after comments, if any, are received from the SEC thereon and after the furnishing by the Company and the Holders of all information required to be contained therein, the Company shall, in consultation with the Holders, prepare and the Company shall file any required amendments to the Approval Proxy Statement with the SEC. The Company shall notify the Holders reasonably promptly of the receipt of any comments from the SEC or its staff and of any request by the SEC or its staff for amendments or supplements to the Approval Proxy Statement or for additional information and shall consult with the Holders regarding, and supply the Holders with copies of, all correspondence between the Company or any of its representatives, on the one hand, and the SEC or its staff, on the other hand, with respect to the Approval Proxy Statement. Prior to filing or mailing the initial Approval Proxy Statement or any proposed amendment of or supplement to the Approval Proxy Statement, the Company shall provide the Holders a reasonable opportunity to review and comment on such document and shall incorporate therein any reasonable comments of the Holders thereto. The Company shall use its best efforts to have the Approval Proxy Statement cleared by the SEC and shall thereafter mail to the stockholders of the Company as reasonably promptly as possible the Approval Proxy Statement and all other proxy materials for the Stockholder Meeting.

(b) The Company hereby covenants and agrees that (a) the Approval Proxy Statement will, when filed, comply as to form in all material respects with the applicable requirements of the 1934 Act and (b) none of the information included or incorporated by reference in the Approval Proxy Statement will, at the date it is first mailed to the stockholders of the Company or at the time of the Stockholder Meeting or at the time of any amendment or supplement thereof, contain any untrue statement of a material fact or omit to state any material fact required to be stated therein or necessary in order to make the statements therein, in light of the circumstances under which they are made, not misleading.

(c) The Company shall take, in accordance with applicable law and its Certificate of Incorporation and Bylaws, all action reasonably necessary to convene the Stockholder Meeting no later than April 30, 2019 and to submit at the Stockholder Meeting for approval by the requisite vote of the stockholders of the Company the matters subject to Stockholder Approval. In connection with the Stockholder Meeting and any adjournment or postponement thereof, (i) the Board shall recommend that its stockholders vote in favor of all matters submitted thereto at such meeting and (ii) neither the Board nor any committee thereof shall withdraw or modify, or propose or resolve to withdraw or modify in a manner adverse to the Holders, such recommendation. The Company shall take all lawful action to solicit from the stockholders of the Company proxies in favor of the Stockholder Approval and take all other action reasonably necessary or advisable to secure the vote or consent of the stockholders that are required by the rules of Principal Market and applicable law, including, if necessary or appropriate or if requested by the Holders, adjourning the Stockholder Meeting to solicit additional proxies. The Company will enforce any and all voting agreements in respect of the matters subject to the Stockholder Meeting.

(d) In the event the Company fails to receive the Stockholder Approval at the time such proposal is considered by the Company’s stockholders, the Company shall use its reasonable best efforts to seek such Stockholder Approval at a subsequent meeting of the Company’s stockholders as soon as reasonably practicable, but no later than 90 days following the meeting at which the Company’s stockholders failed to provide the Stockholder Approval. The Company shall continue to seek Stockholder Approval at



**TABLE OF CONTENTS**

meetings of the Company's stockholders until such Stockholder Approval is obtained with each new meeting to be held as soon as reasonably practicable but no later than 90 days following the date of the prior meeting at which such proposal was considered by the Company's stockholders.

(e) Notwithstanding Section 33 to the contrary, in no event shall the Company be required to publicly disclose any material, nonpublic information provided to the Holders pursuant to this Section 16 prior to such time, if ever, it is required to do so under applicable securities laws; provided, however, that the Company's rights under this Section 16(e) shall not serve to cure any facts or circumstances that would otherwise result in an Equity Conditions Failure.

17. Liquidation, Dissolution, Winding-Up. In the event of a Liquidation Event, the Holders shall be entitled to receive in cash out of the assets of the Company, whether from capital or from earnings available for distribution to its stockholders (the "Liquidation Funds"), after any amount that is required to be paid to Senior Preferred Stock, if any, and before any amount shall be paid to the holders of any of shares of Junior Stock, but pari passu with any Parity Stock then outstanding, an amount per Preferred Share equal to the greater of (i) the Conversion Amount thereof on the date of such payment and (ii) the amount per share such Holder would receive if such Holder converted such Preferred Shares into Common Stock immediately prior to the date of such payment, provided that if the Liquidation Funds are insufficient to pay the full amount due to the Holders and holders of shares of Parity Stock, then each Holder and each holder of Parity Stock shall receive a percentage of the Liquidation Funds equal to the full amount of Liquidation Funds payable to such Holder and such holder of Parity Stock as a liquidation preference, in accordance with their respective certificate of designations (or equivalent), as a percentage of the full amount of Liquidation Funds payable to all Holders and all holders of shares of Parity Stock. To the extent necessary, the Company shall cause such actions to be taken by each of its Subsidiaries so as to enable, to the maximum extent permitted by law, the proceeds of a Liquidation Event to be distributed to the Holders in accordance with this Section 17. All the preferential amounts to be paid to the Holders under this Section 17 shall be paid or set apart for payment before the payment or setting apart for payment of any amount for, or the distribution of any Liquidation Funds of the Company to the holders of shares of Junior Stock in connection with a Liquidation Event as to which this Section 17 applies.

18. Distribution of Assets. In addition to any adjustments pursuant to Section 8, if the Company shall declare or make any dividend or other distributions of its assets (or rights to acquire its assets) to any or all holders of shares of Common Stock, by way of return of capital or otherwise (including without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (the "Distributions"), then each Holder, as holders of Preferred Shares, will be entitled to such Distributions as if such Holder had held the number of shares of Common Stock acquirable upon complete conversion of the Preferred Shares (without taking into account any limitations or restrictions on the convertibility of the Preferred Shares) immediately prior to the date on which a record is taken for such Distribution or, if no such record is taken, the date as of which the record holders of Common Stock are to be determined for such Distributions (provided, however, that to the extent that such Holder's right to participate in any such Distribution would result in such Holder and the other Attribution Parties exceeding the Maximum Percentage, then such Holder shall not be entitled to participate in such Distribution to such extent (and shall not be entitled to beneficial ownership of such shares of Common Stock as a result of such Distribution (and beneficial ownership) to such extent) and the portion of such Distribution shall be held in abeyance for such Holder until such time or times as its right thereto would not result in such Holder and the other Attribution Parties exceeding the Maximum Percentage, at which time or times, if any, such Holder shall be granted such rights (and any rights under this Section 18 on such initial rights or on any subsequent such rights to be held similarly in abeyance) to the same extent as if there had been no such limitation).

19. Vote to Change the Terms of or Issue Preferred Shares. In addition to any other rights provided by law, except where the vote or written consent of the holders of a greater number of shares is required by law or by another provision of the Certificate of Incorporation, without first obtaining the affirmative vote at a meeting duly called for such purpose or the written consent without a meeting of the Required Holders, voting together as a single class, the Company shall not: (a) amend or repeal any provision of, or add any provision to, its Certificate of Incorporation or bylaws, or file any certificate of designations or articles of



**TABLE OF CONTENTS**

amendment of any series of shares of preferred stock, if such action would adversely alter or change the preferences, rights, privileges or powers, or restrictions provided for the benefit, of the Preferred Shares hereunder, regardless of whether any such action shall be by means of amendment to the Certificate of Incorporation or by merger, consolidation or otherwise; (b) increase or decrease (other than by conversion) the authorized number of Preferred Shares; (c) without limiting any provision of Section 2, create or authorize (by reclassification or otherwise) any new class or series of Senior Preferred Stock or Parity Stock; (d) purchase, repurchase or redeem any shares of Junior Stock (other than pursuant to the terms of the Company's equity incentive plans and options and other equity awards granted under such plans (that have in good faith been approved by the Board)); (e) without limiting any provision of Section 3, pay dividends or make any other distribution on any shares of any Junior Stock; or (f) without limiting any provision of Section 10, whether or not prohibited by the terms of the Preferred Shares, circumvent a right of the Preferred Shares hereunder.

20. Transfer of Preferred Shares. A Holder may transfer some or all of its Preferred Shares without the consent of the Company. No Preferred Shares may be sold or transferred other than to a U.S. person as described in section 7701(a)(30) of the Internal Revenue Code of 1986, as amended.

21. Reissuance of Preferred Share Certificates and Book Entries.

(a) Transfer. If any Preferred Shares are to be transferred, the applicable Holder shall surrender the applicable Preferred Share Certificate to the Company (or, if the Preferred Shares are held in Book-Entry form, a written instruction letter to the Company), whereupon the Company will forthwith issue and deliver upon the order of such Holder a new Preferred Share Certificate (in accordance with Section 21(d)) (or evidence of the transfer of such Book-Entry), registered as such Holder may request, representing the outstanding number of Preferred Shares being transferred by such Holder and, if less than the entire outstanding number of Preferred Shares is being transferred, a new Preferred Share Certificate (in accordance with Section 21(d)) to such Holder representing the outstanding number of Preferred Shares not being transferred (or evidence of such remaining Preferred Shares in a Book-Entry for such Holder). Such Holder and any assignee, by acceptance of the Preferred Share Certificate or evidence of Book-Entry issuance, as applicable, acknowledge and agree that, by reason of the provisions of Section 4(c)(iii) following conversion or redemption of any of the Preferred Shares, the outstanding number of Preferred Shares represented by the Preferred Shares may be less than the number of Preferred Shares stated on the face of the Preferred Shares.

(b) Lost, Stolen or Mutilated Preferred Share Certificate. Upon receipt by the Company of evidence reasonably satisfactory to the Company of the loss, theft, destruction or mutilation of a Preferred Share Certificate (as to which a written certification and the indemnification contemplated below shall suffice as such evidence), and, in the case of loss, theft or destruction, of any indemnification undertaking by the applicable Holder to the Company in customary and reasonable form and, in the case of mutilation, upon surrender and cancellation of such Preferred Share Certificate, the Company shall execute and deliver to such Holder a new Preferred Share Certificate (in accordance with Section 21(d)) representing the applicable outstanding number of Preferred Shares.

(c) Preferred Share Certificate and Book-Entries Exchangeable for Different Denominations and Forms. Each Preferred Share Certificate is exchangeable, upon the surrender hereof by the applicable Holder at the principal office of the Company, for a new Preferred Share Certificate or Preferred Share Certificate(s) or new Book-Entry (in accordance with Section 21(d)) representing, in the aggregate, the outstanding number of the Preferred Shares in the original Preferred Share Certificate, and each such new Preferred Share Certificate and/or new Book-Entry, as applicable, will represent such portion of such outstanding number of Preferred Shares from the original Preferred Share Certificate as is designated in writing by such Holder at the time of such surrender. Each Book-Entry may be exchanged into one or more new Preferred Share Certificates or split by the applicable Holder by delivery of a written notice to the Company into two or more new Book-Entries (in accordance with Section 21(d)) representing, in the aggregate, the outstanding number of the Preferred Shares in the original Book-Entry, and each such new Book-Entry and/or new Preferred Share Certificate, as applicable, will represent such portion of such outstanding number of Preferred Shares from the original Book-Entry as is designated in writing by such Holder at the time of such surrender.

A-26



**TABLE OF CONTENTS**

(d) Issuance of New Preferred Share Certificate or Book-Entry. Whenever the Company is required to issue a new Preferred Share Certificate or a new Book-Entry pursuant to the terms of this Certificate of Designations, such new Preferred Share Certificate or new Book-Entry (i) shall represent, as indicated on the face of such Preferred Share Certificate or in such Book-Entry, as applicable, the number of Preferred Shares remaining outstanding (or in the case of a new Preferred Share Certificate or new Book-Entry being issued pursuant to Section 21(a) or Section 21(c), the number of Preferred Shares designated by such Holder) which, when added to the number of Preferred Shares represented by the other new Preferred Share Certificates or other new Book-Entry, as applicable, issued in connection with such issuance, does not exceed the number of Preferred Shares remaining outstanding under the original Preferred Share Certificate or original Book-Entry, as applicable, immediately prior to such issuance of new Preferred Share Certificate or new Book-Entry, as applicable, and (ii) shall have an issuance date, as indicated on the face of such new Preferred Share Certificate or in such new Book-Entry, as applicable, which is the same as the issuance date of the original Preferred Share Certificate or in such original Book-Entry, as applicable.

22. Remedies, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Certificate of Designations shall be cumulative and in addition to all other remedies available at law or in equity (including a decree of specific performance and/or other injunctive relief), and nothing herein shall limit any Holder's right to pursue actual for any failure by the Company to comply with the terms of this Certificate of Designations. Amounts set forth or provided for herein with respect to payments, conversion and the like (and the computation thereof) shall be the amounts to be received by a Holder and shall not, except as expressly provided herein, be subject to any other obligation of the Company (or the performance thereof). The Company acknowledges that a breach by it of its obligations hereunder will cause irreparable harm to the Holders and that the remedy at law for any such breach may be inadequate. The Company therefore agrees that, in the event of any such breach or threatened breach, each Holder shall be entitled, in addition to all other available remedies, to seek an injunction restraining any such breach or any such threatened breach, without the necessity of showing economic loss and without any bond or other security being required. The Company shall provide all information and documentation to a Holder that is reasonably requested by such Holder to enable such Holder to confirm the Company's compliance with the terms and conditions of this Certificate of Designations.

23. Payment of Collection, Enforcement and Other Costs. If (a) any Preferred Shares are placed in the hands of an attorney for collection or enforcement or is collected or enforced through any legal proceeding or a Holder otherwise takes action to collect amounts due under this Certificate of Designations with respect to the Preferred Shares or to enforce the provisions of this Certificate of Designations or (b) there occurs any bankruptcy, reorganization, receivership of the Company or other proceedings affecting Company creditors' rights and involving a claim under this Certificate of Designations, then the Company shall pay the reasonable and documented costs incurred by such Holder for such collection, enforcement or action or in connection with such bankruptcy, reorganization, receivership or other proceeding, including, without limitation, reasonable and documented attorneys' fees and disbursements.

24. Construction; Headings. This Certificate of Designations shall be deemed to be jointly drafted by the Company and the Holders and shall not be construed against any such Person as the drafter hereof. The headings of this Certificate of Designations are for convenience of reference and shall not form part of, or affect the interpretation of, this Certificate of Designations. Unless the context clearly indicates otherwise, each pronoun herein shall be deemed to include the masculine, feminine, neuter, singular and plural forms thereof. The terms "including," "includes," "include" and words of like import shall be construed broadly as if followed by the words "without limitation." The terms "herein," "hereunder," "hereof" and words of like import refer to this entire Certificate of Designations instead of just the provision in which they are found. Unless expressly indicated otherwise, all section references are to sections of this Certificate of Designations.

25. Failure or Indulgence Not Waiver. No failure or delay on the part of a Holder in the exercise of any power, right or privilege hereunder within the applicable time periods provided herein shall operate as a waiver thereof, nor shall any single or partial exercise of any such power, right or privilege preclude other or further exercise thereof or of any other right, power or privilege. No waiver shall be effective unless it is in writing and signed by an authorized representative of the waiving party. Notwithstanding the foregoing, nothing contained in this Section 25 shall permit any waiver of any provision of Section 4(d).



TABLE OF CONTENTS

26. Dispute Resolution.

(a) In the case of a dispute relating to a Closing Bid Price, a Closing Sale Price, a Conversion Price, an Installment Conversion Price, a Triggering Event Conversion Price, a VWAP or a fair market value or the arithmetic calculation of a Conversion Rate, or the applicable Redemption Price (as the case may be) (including, without limitation, a dispute relating to the determination of any of the foregoing), the Company or the applicable Holder (as the case may be) shall submit the dispute to the other party via electronic mail (A) if by the Company, within two (2) Business Days after the occurrence of the circumstances giving rise to such dispute or (B) if by such Holder at any time after such Holder learned of the circumstances giving rise to such dispute. If such Holder and the Company are unable to promptly resolve such dispute relating to such Closing Bid Price, such Closing Sale Price, such Conversion Price, such Installment Conversion Price, such Triggering Event Conversion Price, such VWAP or such fair market value, or the arithmetic calculation of such Conversion Rate or such applicable Redemption Price (as the case may be), at any time after the third (3rd) Business Day following such initial notice by the Company or such Holder (as the case may be) of such dispute to the Company or such Holder (as the case may be), then such Holder may, at its sole option, select an independent, reputable investment bank to resolve such dispute, which investment bank shall be approved by the Company (such approval not to be unreasonably delayed, withheld or conditioned).

(b) Such Holder and the Company shall each deliver to such investment bank (A) a copy of the initial dispute submission so delivered in accordance with the first sentence of this Section 26 and (B) written documentation supporting its position with respect to such dispute, in each case, no later than 5:00 p.m. (New York time) by the fifth (5th) Business Day immediately following the date on which such Holder selected such investment bank (the "Dispute Submission Deadline") (the documents referred to in the immediately preceding clauses (A) and (B) are collectively referred to herein as the "Required Dispute Documentation") (it being understood and agreed that if either such Holder or the Company fails to so deliver all of the Required Dispute Documentation by the Dispute Submission Deadline, then the party who fails to so submit all of the Required Dispute Documentation shall no longer be entitled to (and hereby waives its right to) deliver or submit any written documentation or other support to such investment bank with respect to such dispute and such investment bank shall resolve such dispute based solely on the Required Dispute Documentation that was delivered to such investment bank prior to the Dispute Submission Deadline). Unless otherwise agreed to in writing by both the Company and such Holder or otherwise requested by such investment bank, neither the Company nor such Holder shall be entitled to deliver or submit any written documentation or other support to such investment bank in connection with such dispute (other than the Required Dispute Documentation).

(c) The Company and such Holder shall cause such investment bank to determine the resolution of such dispute and notify the Company and such Holder in writing of such resolution no later than ten (10) Business Days immediately following the Dispute Submission Deadline. Absent bad faith by such Holder, the fees and expenses of such investment bank shall be borne solely by the Company, and such investment bank's resolution of such dispute shall be final and binding upon all parties absent manifest error.

A-28

---

TABLE OF CONTENTS

27. Notices; Currency; Payments.

(a) Notices. The Company shall provide each Holder with prompt written notice of all actions taken pursuant to the terms of this Certificate of Designations, including in reasonable detail a description of such action and the reason therefor. Any notices, consents, waivers or other communications required or permitted to be given under the terms hereof must be in writing and will be deemed to have been delivered: (i) upon receipt, when delivered personally; (ii) upon receipt, when sent by facsimile (provided confirmation of transmission is mechanically or electronically generated and kept on file by the sending party) or by electronic mail (provided that the sending party does not receive an automated rejection notice); or (iii) one Business Day after deposit with an overnight courier service, in each case properly addressed to the party to receive the same as follows:

(i) if to the Company, to:

FuelCell Energy, Inc.

3 Great Pasture Road

Danbury, CT 06810

Attention: Michael Bishop & Jennifer D. Arasimowicz, Esq.

Email: mbishop@fce.com

jarasimowicz@fce.com

with a copy to:

Foley & Lardner LLP

111 Huntington Avenue, Suite 2500

Boston, MA 02199

Attention: Paul Broude, Esq.

Email: pbroude@foley.com

Facsimile: (617) 342-4001

(ii) if to a Holder, in accordance with the address, facsimile number and/or e-mail address of such Holder set forth on the books and records of the Company; or to such other address, facsimile number and/or e-mail address and/or to the attention of such Person as the recipient party has specified by written notice given to each other party five (5) days prior to the effectiveness of such change.

Written confirmation of receipt (A) given by the recipient of such notice, consent, waiver or other communication, (B) mechanically or electronically generated by the sender's facsimile machine or e-mail containing the time, date, recipient facsimile number and an image of the first page of such transmission or (C) provided by an overnight courier service shall be rebuttable evidence of personal service, receipt by facsimile or receipt from an overnight courier service in accordance with clause (i), (ii) or (iii) above, respectively. The Company shall provide each Holder with prompt written notice of all actions taken pursuant to this Certificate of Designations, including in reasonable detail a description of such action and the reason therefore. Without limiting the generality of the foregoing, the Company shall give written notice to each Holder (i) promptly upon any adjustment of the Conversion Price, setting forth in reasonable detail, and certifying, the calculation of such adjustment and (ii) at least fifteen (15) days prior to the date on which the Company closes its books or takes a record (A) with respect to any dividend or distribution upon the Common Stock, (B) with respect to any grant, issuances, or sales of any Options, Convertible Securities or rights to purchase stock, warrants, securities or other property to holders of shares of Common Stock or (C) for determining rights to vote with respect to any Fundamental Transaction, dissolution or liquidation, provided in each case that such information shall be made known to the public prior to or in conjunction with such notice being provided to such Holder.

(b) Currency. All dollar amounts referred to in this Certificate of Designations are in United States Dollars ("U.S. Dollars"), and all amounts owing under this Certificate of Designations shall be paid in U.S. Dollars. All amounts denominated in other currencies (if any) shall be converted into the U.S. Dollar equivalent amount in accordance with the Exchange Rate on the date of calculation. "Exchange Rate" means, in relation to any amount of currency to be converted into U.S. Dollars

A-29

**TABLE OF CONTENTS**

pursuant to this Certificate of Designations, the U.S. Dollar exchange rate as published in the Wall Street Journal on the relevant date of calculation (it being understood and agreed that where an amount is calculated with reference to, or over, a period of time, the date of calculation shall be the final date of such period of time).

(c) Payments. Whenever any payment of cash is to be made by the Company to any Person pursuant to this Certificate of Designations, unless otherwise expressly set forth herein, such payment shall be made in lawful money of the United States of America by wire transfer of immediately available funds pursuant to wire transfer instructions that Holder shall provide to the Company in writing from time to time with no less than two (2) Business Days prior written notice. Whenever any amount expressed to be due by the terms of this Certificate of Designations is due on any day which is not a Business Day, the same shall instead be due on the next succeeding day which is a Business Day. Any amount due under this Certificate of Designations which is not paid within five (5) Business Days of when due shall result in a late charge being incurred and payable by the Company in an amount equal to interest on such amount at the rate of fifteen percent (15%) per annum from the date such amount was due until the same is paid in full ("Late Charge").

28. Waiver of Notice. To the extent permitted by law, the Company hereby irrevocably waives demand, notice, presentment, protest and all other demands and notices in connection with the delivery, acceptance, performance, default or enforcement of this Certificate of Designations.

29. Governing Law. This Certificate of Designations shall be construed and enforced in accordance with, and all questions concerning the construction, validity, interpretation and performance of this Certificate of Designations shall be governed by, the internal laws of the State of Delaware, without giving effect to any choice of law or conflict of law provision or rule (whether of the State of Delaware or any other jurisdictions) that would cause the application of the laws of any jurisdictions other than the State of Delaware. The Company and each Holder hereby irrevocably submits to the exclusive jurisdiction of the state and federal courts sitting in The City of New York, Borough of Manhattan, for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed to limit in any way any right to serve process in any manner permitted by law. Nothing contained herein shall be deemed or operate to preclude any Holder from bringing suit or taking other legal action against the Company in any other jurisdiction to collect on the Company's obligations to such Holder, or to enforce a judgment or other court ruling in favor of such Holder. **THE COMPANY AND EACH HOLDER HEREBY IRREVOCABLY WAIVES ANY RIGHT IT MAY HAVE TO, AND AGREES NOT TO REQUEST, A JURY TRIAL FOR THE ADJUDICATION OF ANY DISPUTE HEREUNDER OR IN CONNECTION WITH OR ARISING OUT OF THIS CERTIFICATE OF DESIGNATIONS OR ANY TRANSACTION CONTEMPLATED HEREBY.**

30. Severability. If any provision of this Certificate of Designations is prohibited by law or otherwise determined to be invalid or unenforceable by a court of competent jurisdiction, the provision that would otherwise be prohibited, invalid or unenforceable shall be deemed amended to apply to the broadest extent that it would be valid and enforceable, and the invalidity or unenforceability of such provision shall not affect the validity of the remaining provisions of this Certificate of Designations so long as this Certificate of Designations as so modified continues to express, without material change, the original intentions of the parties as to the subject matter hereof and the prohibited nature, invalidity or unenforceability of the provision(s) in question does not substantially impair the respective expectations or reciprocal obligations of the parties or the practical realization of the benefits that would otherwise be conferred upon the parties. The parties will endeavor in good faith negotiations to replace the prohibited, invalid or unenforceable provision(s) with a valid provision(s), the effect of which comes as close as possible to that of the prohibited, invalid or unenforceable provision(s).

31. Maximum Payments. Nothing contained herein shall be deemed to establish or require the payment of a rate of interest or other charges in excess of the maximum permitted by applicable law. In the event that the rate of interest required to be paid or other charges hereunder exceed the maximum



TABLE OF CONTENTS

permitted by such law, any payments in excess of such maximum shall be credited against amounts owed by the Company to the applicable Holder and thus refunded to the Company.

32. Stockholder Matters; Amendment.

(a) Stockholder Matters. Any stockholder action, approval or consent required, desired or otherwise sought by the Company pursuant to the DGCL, the Certificate of Incorporation, this Certificate of Designations or otherwise with respect to the issuance of Preferred Shares may be effected by written consent of the Company's stockholders or at a duly called meeting of the Company's stockholders, all in accordance with the applicable rules and regulations of the DGCL. This provision is intended to comply with the applicable sections of the DGCL permitting stockholder action, approval and consent affected by written consent in lieu of a meeting.

(b) Amendment. This Certificate of Designations or any provision hereof may be amended by obtaining the affirmative vote at a meeting duly called for such purpose, or written consent without a meeting in accordance with the DGCL, of the Required Holders, voting separate as a single class, and with such other stockholder approval, if any, as may then be required pursuant to the DGCL and the Certificate of Incorporation.

33. Disclosure. Upon receipt or delivery by the Company of any notice in accordance with the terms of this Certificate of Designations, unless the Company has in good faith determined that the matters relating to such notice do not constitute material, non-public information relating to the Company or any of its Subsidiaries, the Company shall within two (2) Business Days after any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise, unless any provision of this Certificate of Designations provides otherwise with respect to the public disclosure of a particular notice, then such public disclosure shall be in accordance with the terms and conditions of such provision. In the event that the Company believes that a notice contains material, non-public information relating to the Company or any of its Subsidiaries, the Company so shall indicate to such Holder contemporaneously with delivery of such notice, and in the absence of any such indication, such Holder shall be allowed to presume that all matters relating to such notice do not constitute material, non-public information relating to the Company or any of its Subsidiaries.

34. Certain Defined Terms. For purposes of this Certificate of Designations, the following terms shall have the following meanings:

(a) "1934 Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.

(b) "Additional Amount" means, as of the applicable date of determination, with respect to each Preferred Share, all declared and unpaid Dividends on such Preferred Share.

(c) "Affiliate" or "Affiliated" means, with respect to any Person, any other Person that directly or indirectly controls, is controlled by, or is under common control with, such Person, it being understood for purposes of this definition that "control" of a Person means the power directly or indirectly either to vote 10% or more of the stock having ordinary voting power for the election of directors of such Person or direct or cause the direction of the management and policies of such Person whether by contract or otherwise.

(d) "Attribution Parties" means, collectively, the following Persons and entities: (i) any investment vehicle, including, any funds, feeder funds or managed accounts, currently, or from time to time after the Initial Issuance Date, directly or indirectly managed or advised by a Holder's investment manager or any of its Affiliates or principals, (ii) any direct or indirect Affiliates of such Holder or any of the foregoing, (iii) any Person acting or who could be deemed to be acting as a Group together with such Holder or any of the foregoing and (iv) any other Persons whose beneficial ownership of the Company's Common Stock would or could be aggregated with such Holder's and the other Attribution Parties for purposes of Section 13(d) of the 1934 Act. For clarity, the purpose of the foregoing is to subject collectively such Holder and all other Attribution Parties to the Maximum Percentage.

(e) "Bloomberg" means Bloomberg, L.P.

A-31

---

**TABLE OF CONTENTS**

- (f) “Book-Entry” means each entry on the Register evidencing one or more Preferred Shares held by a Holder in lieu of a Preferred Share Certificate issuable hereunder.
- (g) “Business Day” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed.
- (h) “Change of Control” means any Fundamental Transaction other than (i) any reorganization, recapitalization or reclassification of the Common Stock in which holders of the Company’s voting power immediately prior to such reorganization, recapitalization or reclassification continue after such reorganization, recapitalization or reclassification to hold publicly traded securities and, directly or indirectly, are, in all material respects, the holders of the voting power of the surviving entity (or entities with the authority or voting power to elect the members of the board of directors (or their equivalent if other than a corporation) of such entity or entities) after such reorganization, recapitalization or reclassification, (ii) pursuant to a migratory merger effected solely for the purpose of changing the jurisdiction of incorporation of the Company, (iii) a merger in connection with a bona fide acquisition by the Company of any Person in which such merger does not contemplate a change to the identity of a majority of the board of directors of the Company, or (iv) as a result of the transactions contemplated by this Certificate of Designations.
- (i) “Closing Bid Price” and “Closing Sale Price” means, for any security as of any date, the last closing bid price and last closing trade price, respectively, for such security on the Principal Market, as reported by Bloomberg, or, if the Principal Market begins to operate on an extended hours basis and does not designate the closing bid price or the closing trade price (as the case may be) then the last bid price or last trade price, respectively, of such security prior to 4:00:00 p.m., New York time, as reported by Bloomberg, or, if the Principal Market is not the principal securities exchange or trading market for such security, the last closing bid price or last trade price, respectively, of such security on the principal securities exchange or trading market where such security is listed or traded as reported by Bloomberg, or if the foregoing do not apply, the last closing bid price or last trade price, respectively, of such security in the over-the-counter market on the electronic bulletin board for such security as reported by Bloomberg, or, if no closing bid price or last trade price, respectively, is reported for such security by Bloomberg, the average of the bid prices, or the ask prices, respectively, of any market makers for such security as reported in the “pink sheets” by OTC Markets Group Inc. (formerly Pink Sheets LLC). If the Closing Bid Price or the Closing Sale Price cannot be calculated for a security on a particular date on any of the foregoing bases, the Closing Bid Price or the Closing Sale Price (as the case may be) of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holder. If the Company and the Required Holders are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 26. All such determinations shall be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during such period.
- (j) “Common Stock” means (i) the Company’s shares of common stock, \$0.0001 par value per share, and (ii) any capital stock into which such common stock shall have been changed or any share capital resulting from a reclassification of such common stock.
- (k) “Common Stock Equivalents” means, collectively, Options and Convertible Securities.
- (l) “Contingent Obligation” means, as to any Person, any direct or indirect liability, contingent or otherwise, of that Person with respect to any Indebtedness, lease, dividend or other obligation of another Person if the primary purpose or intent of the Person incurring such liability, or the primary effect thereof, is to provide assurance to the obligee of such liability that such liability will be paid or discharged, or that any agreements relating thereto will be complied with, or that the holders of such liability will be protected (in whole or in part) against loss with respect thereto.
- (m) “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.



**TABLE OF CONTENTS**

- (n) “Current Subsidiary” means any Person in which the Company on the Subscription Date, directly or indirectly, (i) owns any of the outstanding capital stock or holds any equity or similar interest of such Person or (ii) controls or operates all or any part of the business, operations or administration of such Person, and all of the foregoing, collectively, “Current Subsidiaries”.
- (o) “Eligible Market” means The New York Stock Exchange, the NYSE MKT, the Nasdaq Global Select Market, the Nasdaq Capital Market or the Principal Market.
- (p) “Equity Conditions” means, with respect to an given date of determination: (i) on each day during the applicable Equity Conditions Measuring Period, the Common Stock is listed or designated for quotation (as applicable) on an Eligible Market and shall not have been suspended from trading on an Eligible Market (other than suspensions of not more than two (2) days and occurring prior to the applicable date of determination due to business announcements by the Company); (ii) during the applicable Equity Conditions Measuring Period, the Company shall have delivered all shares of Common Stock issuable upon conversion of the Preferred Shares on a timely basis as set forth in Section 4 hereof; (iii) any shares of Common Stock to be issued in connection with the event requiring determination may be issued in full without violating Section 4(d)(i) hereof; (iv) any shares of Common Stock to be issued in connection with the event requiring determination may be issued in full without violating the rules or regulations of the Eligible Market on which the Common Stock is then listed or designated for quotation (as applicable); (v) on each day during the applicable Equity Conditions Measuring Period, no public announcement of a pending, proposed or intended Fundamental Transaction shall have occurred which has not been abandoned, terminated or consummated; (vi) on each day during the applicable Equity Conditions Measuring Period, such Holder shall not be in possession of any material, non-public information regarding the Company provided to it by the Company, any of its Subsidiaries or any of their respective Affiliates, employees, officers, representatives, agents or the like; (vii) on each day during the applicable Equity Conditions Measuring Period, the Company otherwise shall not have breached any covenant or other term of this Certificate of Designations in any material respect (other than covenants subject to material adverse effect or materiality, which may not be breached in any respect), including, without limitation, the Company shall not have failed to timely make any payment pursuant to this Certificate of Designations; (viii) on at least seven (7) Trading Days during the applicable Equity Conditions Measuring Period, including each of the final three (3) Trading Days during such Equity Conditions Measuring Period, there shall not have occurred any Volume Failure or Price Failure; (ix) on each day during the applicable Equity Conditions Measuring Period, on the applicable date of determination (A) no Authorized Share Failure shall exist or be continuing and 100% of the maximum number of shares of Common Stock then issuable upon conversion of the Preferred Shares (without regard to any limitations on conversion) are available under the certificate of incorporation of the Company and reserved by the Company to be issued pursuant to this Certificate of Designations, (B) all shares of Common Stock to be issued in connection with the event requiring this determination may be issued in full without resulting in an Authorized Share Failure and (C) all shares of Common Stock to be issued in connection with the event requiring this determination are duly authorized and may be issued in full; (x) on each day during the applicable Equity Conditions Measuring Period, there shall not have occurred and there shall not exist a Triggering Event or an event that with the passage of time or giving of notice would constitute a Triggering Event; and (xi) the shares of Common Stock issuable pursuant to the event requiring the satisfaction of the Equity Conditions are eligible for trading without restriction on an Eligible Market.
- (q) “Equity Conditions Failure” means that as of the applicable date of determination the Equity Conditions have not been satisfied (or waived in writing by the applicable Holder).
- (r) “Equity Conditions Measuring Period” means the period beginning twelve (12) Trading Days immediately prior to the applicable date of determination and ending on and including the applicable date of determination.
- (s) “Fundamental Transaction” means (A) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, (i) consolidate or merge with or into (whether or not the Company is the surviving corporation) another Subject Entity, or (ii) sell, assign, transfer, convey or otherwise dispose of all or substantially all of the properties or assets

**TABLE OF CONTENTS**

of the Company or any of its “significant subsidiaries” (as defined in Rule 1-02 of Regulation S-X) to one or more Subject Entities, or (iii) make, or allow one or more Subject Entities to make, or allow the Company to be subject to or have its Common Stock be subject to or party to one or more Subject Entities making, a purchase, tender or exchange offer that is accepted by the holders of at least either (x) 50% of the outstanding shares of Common Stock, (y) 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all Subject Entities making or party to, or Affiliated with any Subject Entities making or party to, such purchase, tender or exchange offer were not outstanding; or (z) such number of shares of Common Stock such that all Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such purchase, tender or exchange offer, become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (iv) consummate a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off or scheme of arrangement) with one or more Subject Entities whereby all such Subject Entities, individually or in the aggregate, acquire, either (x) at least 50% of the outstanding shares of Common Stock, (y) at least 50% of the outstanding shares of Common Stock calculated as if any shares of Common Stock held by all the Subject Entities making or party to, or Affiliated with any Subject Entity making or party to, such stock purchase agreement or other business combination were not outstanding; or (z) such number of shares of Common Stock such that the Subject Entities become collectively the beneficial owners (as defined in Rule 13d-3 under the 1934 Act) of at least 50% of the outstanding shares of Common Stock, or (v) reorganize, recapitalize or reclassify its Common Stock, (B) that the Company shall, directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, allow any Subject Entity individually or the Subject Entities in the aggregate to be or become the “beneficial owner” (as defined in Rule 13d-3 under the 1934 Act), directly or indirectly, whether through acquisition, purchase, assignment, conveyance, tender, tender offer, exchange, reduction in outstanding shares of Common Stock, merger, consolidation, business combination, reorganization, recapitalization, spin-off, scheme of arrangement, reorganization, recapitalization or reclassification or otherwise in any manner whatsoever, of either (x) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock, (y) at least 50% of the aggregate ordinary voting power represented by issued and outstanding Common Stock not held by all such Subject Entities as of the date of this Certificate of Designations calculated as if any shares of Common Stock held by all such Subject Entities were not outstanding, or (z) a percentage of the aggregate ordinary voting power represented by issued and outstanding shares of Common Stock or other equity securities of the Company sufficient to allow such Subject Entities to effect a statutory short form merger or other transaction requiring other shareholders of the Company to surrender their shares of Common Stock without approval of the shareholders of the Company or (C) directly or indirectly, including through subsidiaries, Affiliates or otherwise, in one or more related transactions, the issuance of or the entering into any other instrument or transaction structured in a manner to circumvent, or that circumvents, the intent of this definition in which case this definition shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this definition to the extent necessary to correct this definition or any portion of this definition which may be defective or inconsistent with the intended treatment of such instrument or transaction.

(t) “GAAP” means United States generally accepted accounting principles, consistently applied.

(u) “Group” means a “group” as that term is used in Section 13(d) of the 1934 Act and as defined in Rule 13d-5 thereunder.

(v) “Holder Pro Rata Amount” means, with respect to any Holder, a fraction (i) the numerator of which is the number of Preferred Shares issued to such Holder on the Initial Issuance Date and (ii) the denominator of which is the number of Preferred Shares issued to all Holders on the Initial Issuance Date.

(w) “Indebtedness” means of any Person means, without duplication (A) all indebtedness for borrowed money, (B) all obligations issued, undertaken or assumed as the deferred purchase price of property or services, including, without limitation, “capital leases” in accordance with GAAP for the periods covered thereby (other than trade payables entered into in the ordinary course of business consistent with past practice), (C) all reimbursement or payment obligations with respect to letters of credit, surety bonds and

A-34

**TABLE OF CONTENTS**

other similar instruments, (D) all obligations evidenced by notes, bonds, debentures or similar instruments, including obligations so evidenced incurred in connection with the acquisition of property, assets or businesses, (E) all indebtedness created or arising under any conditional sale or other title retention agreement, or incurred as financing, in either case with respect to any property or assets acquired with the proceeds of such indebtedness (even though the rights and remedies of the seller or bank under such agreement in the event of default are limited to repossession or sale of such property), (F) all monetary obligations under any leasing or similar arrangement which, in connection with United States generally accepted accounting principles, consistently applied for the periods covered thereby, is classified as a capital lease, (G) all indebtedness referred to in clauses (A) through (F) above secured by (or for which the holder of such Indebtedness has an existing right, contingent or otherwise, to be secured by) any mortgage, deed of trust, lien, pledge, charge, security interest or other encumbrance of any nature whatsoever in or upon any property or assets (including accounts and contract rights) with respect to any asset or property owned by any Person, even though the Person which owns such assets or property has not assumed or become liable for the payment of such indebtedness, and (H) all Contingent Obligations in respect of indebtedness or obligations of others of the kinds referred to in clauses (A) through (G) above.

(x) “Installment Amount” means, as of the applicable date of determination, with respect to a particular Holder, (A) the Stated Value of a number of Preferred Shares equal to (i) the product of (1) \$989,677.42 multiplied by (2) such Holder’s Pro Rata Amount (rounded to the nearest whole number) or (ii) all Preferred Shares then held by such Holder only if such number of Preferred Shares then held by such Holder is less than the amount determined under the immediately preceding clause (i), (B) any Deferral Amount deferred pursuant to Section 9(d) to such applicable Installment Date and included in such Installment Amount in accordance therewith, and (C) any Acceleration Amount accelerated pursuant to Section 9(e) for such Current Installment Date and included in such Installment Amount in accordance therewith.

(y) “Installment Conversion Price” means, with respect to a particular date of determination, the lesser of (i) the Conversion Price then in effect, and (ii) 87.5% of the Installment Market Price then in effect. All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during any such measuring period.

(z) “Installment Date” means each of the first (1st) and sixteenth (16th) calendar day of each month commencing on (and including) December 1, 2018 and ending on (and including) the Maturity Date; provided that if a given Installment Date is not a Trading Day, such Installment Date shall be the next Trading Day.

(aa) “Installment Market Price” means the lesser of (i) the VWAP on the Trading Day immediately prior to the applicable Installment Date and (ii) the quotient of (A) the sum of the two (2) lowest daily VWAPs of the Common Stock during the ten (10) consecutive Trading Day period ending and including the Trading Day immediately prior to the applicable Installment Date, divided by (B) two (2).

(bb) “Intellectual Property Rights” means, with respect to the Company and its Subsidiaries, all of their rights or licenses to use all trademarks, trade names, service marks, service mark registrations, service names, original works of authorship, patents, patent rights, copyrights, inventions, licenses, approvals, governmental authorizations, trade secrets and other intellectual property rights and all applications and registrations therefor.

(cc) “Liquidation Event” means, whether in a single transaction or series of transactions, the voluntary or involuntary liquidation, dissolution or winding up of the Company or such Subsidiaries the assets of which constitute all or substantially all of the assets of the business of the Company and its Subsidiaries, taken as a whole.

(dd) “Material Adverse Effect” means one or more material adverse effect(s), individually or in the aggregate, on the business, properties, assets, liabilities, operations, results of operations, condition (financial or otherwise) or prospects of the Company and its Subsidiaries, if any, taken as a whole, or on the transactions contemplated hereby, or on the authority or ability of the Company to perform its obligations under this Certificate of Designations.

**TABLE OF CONTENTS**

(ee) “Maturity Date” shall mean March 1, 2020; provided, however, the Maturity Date may be extended at the option of a Holder (i) in the event that, and for so long as, a Triggering Event shall have occurred and be continuing or (ii) through the date that is twenty (20) Business Days after the consummation of a Fundamental Transaction in the event that a Fundamental Transaction is publicly announced or a Change of Control Notice is delivered prior to the Maturity Date; provided, however, that if a Holder elects to convert some or all of its Preferred Shares pursuant to Section 4 hereof, and the Conversion Amount would be limited pursuant to Section 4(d) hereunder, the Maturity Date shall automatically be extended until such time as such provision shall not limit the conversion of such Preferred Shares.

(ff) “New Subsidiary” means, as of any date of determination, any Person in which the Company after the Subscription Date, directly or indirectly, (i) owns or acquires any of the outstanding capital stock or holds any equity or similar interest of such Person or (ii) controls or operates all or any part of the business, operations or administration of such Person, and all of the foregoing, collectively, “New Subsidiaries.”

(gg) “Options” means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.

(hh) “Parent Entity” of a Person means an entity that, directly or indirectly, controls the applicable Person and whose common stock or equivalent equity security is quoted or listed on an Eligible Market, if any, or, if there is more than one such Person or Parent Entity, the Person or Parent Entity with the largest public market capitalization as of the date of consummation of the Change of Control.

(ii) “Person” means an individual, a limited liability company, a partnership, a joint venture, a corporation, a trust, an unincorporated organization, any other entity or a government or any department or agency thereof.

(jj) “Price Failure” means, with respect to each Trading Day of the applicable Equity Conditions Measuring Period, the VWAP of the Common Stock fails to be \$0.50 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions occurring after the Subscription Date) or more. All such determinations to be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during any such measuring period.

(kk) “Principal Market” means the Nasdaq Global Market.

(ll) “Redemption Notices” means, collectively, the Triggering Events Redemption Notices, the Maturity Redemption Notice, the Installment Notices with respect to any Installment Redemption and the Change of Control Redemption Notices, and each of the foregoing, individually, a “Redemption Notice.”

(mm) “Redemption Premium” means 125%.

(nn) “Redemption Prices” means, collectively, Triggering Event Redemption Prices, the Change of Control Redemption Prices, the Maturity Redemption Price and the Installment Redemption Prices, and each of the foregoing, individually, a “Redemption Price.”

(oo) “SEC” means the Securities and Exchange Commission or the successor thereto.

(pp) “Significant Subsidiary” shall have the meaning ascribed to such term in Rule 1-02 of Regulation S-X.

(qq) “Stated Value” shall mean \$1,000 per share, subject to adjustment for stock splits, stock dividends, recapitalizations, reorganizations, reclassifications, combinations, subdivisions or other similar events occurring after the Initial Issuance Date with respect to the Preferred Shares.

(rr) “Stockholder Meeting Outside Date” means April 30, 2019.

(ss) “Subscription Date” means August 27, 2018.

(tt) “Subject Entity” means any Person, Persons or Group or any Affiliate of any such Person, Persons or Group.

A-36

---

TABLE OF CONTENTS

(uu) “Subsidiaries” means, as of any date of determination, collectively, all Current Subsidiaries and all New Subsidiaries, and each of the foregoing, individually, a “Subsidiary.”

(vv) “Successor Entity” means the Person (or, if so elected by the Required Holders, the Parent Entity) formed by, resulting from or surviving any Change of Control or the Person (or, if so elected by the Required Holders, the Parent Entity) with which such Change of Control shall have been entered into.

(ww) “Trading Day” means, as applicable, (x) with respect to all price or trading volume determinations relating to the Common Stock, any day on which the Common Stock is traded on the Principal Market, or, if the Principal Market is not the principal trading market for the Common Stock, then on the principal securities exchange or securities market on which the Common Stock is then traded, provided that “Trading Day” shall not include any day on which the Common Stock is scheduled to trade on such exchange or market for less than 4.5 hours or any day that the Common Stock is suspended from trading during the entire final hour of trading on such exchange or market (or if such exchange or market does not designate in advance the closing time of trading on such exchange or market, then during the hour ending at 4:00:00 p.m., New York time) unless such day is otherwise designated as a Trading Day in writing by the Holder or (y) with respect to all determinations other than price or trading volume determinations relating to the Common Stock, any day on which the Principal Market or other then applicable Eligible Market is open for trading of securities.

(xx) “Triggering Event Conversion Price” means, with respect to any Triggering Event Conversion that price which shall be the lower of (i) the applicable Conversion Price as in effect on the Trading Day immediately preceding the time of the delivery or deemed delivery of the applicable Conversion Notice, and (ii) 85% of the lowest VWAP of the Common Stock on any Trading Day during the five (5) consecutive Trading Day period ending and including the Trading Day immediately preceding the delivery or deemed delivery of the applicable Conversion Notice (as adjusted for any share dividend, share split, share combination, reclassification or similar transaction that proportionately decreases or increases the Common Stock during such period).

(yy) “Volume Failure” means, with respect to each Trading Day of the applicable Equity Conditions Measuring Period, the aggregate daily dollar trading volume (as reported on Bloomberg) of the Common Stock fails to be \$150,000 or more.

(zz) “VWAP” means, for any security as of any date, the dollar volume-weighted average price for such security on the Principal Market (or, if the Principal Market is not the principal trading market for such security, then on the principal securities exchange or securities market on which such security is then traded) during the period beginning at 9:30:01 a.m., New York time, and ending at 4:00:00 p.m., New York time, as reported by Bloomberg through its “Volume at Price” function or, if the foregoing does not apply, the dollar volume-weighted average price of such security in the over-the-counter market on the electronic bulletin board for such security during the period beginning at 9:30:01 a.m., New York time, and ending at 4:00:00 p.m., New York time, as reported by Bloomberg, or, if no dollar volume-weighted average price is reported for such security by Bloomberg for such hours, the average of the highest closing bid price and the lowest closing ask price of any of the market makers for such security as reported in the “pink sheets” by OTC Markets Group Inc. (formerly Pink Sheets LLC). If the VWAP cannot be calculated for such security on such date on any of the foregoing bases, the VWAP of such security on such date shall be the fair market value as mutually determined by the Company and the Required Holders. If the Company and the Required Holders are unable to agree upon the fair market value of such security, then such dispute shall be resolved in accordance with the procedures in Section 26. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

\* \* \* \* \*

TABLE OF CONTENTS

IN WITNESS WHEREOF, the Company has caused this Certificate of Designations of Series D Convertible Preferred Stock of FuelCell Energy, Inc. to be signed by its Senior Vice President & Chief Financial Officer on this day of August, 2018.

FUELCELL ENERGY, INC.

By:

Name: Michael S. Bishop

Title: Senior Vice President & Chief Financial Officer

A-38

---

TABLE OF CONTENTS

EXHIBIT I

FUELCELL ENERGY, INC.

CONVERSION NOTICE

Reference is made to the Certificate of Designations, Preferences and Rights of the Series D Convertible Preferred Stock of FuelCell Energy, Inc. (the "Certificate of Designations"). In accordance with and pursuant to the Certificate of Designations, the undersigned hereby elects to convert the number of shares of Series D Convertible Preferred Stock, \$0.01 par value per share (the "Preferred Shares"), of FuelCell Energy, Inc., a Delaware corporation (the "Company"), indicated below into shares of common stock, \$0.0001 value per share (the "Common Stock"), of the Company, as of the date specified below.

Date of Conversion:

Aggregate number of Preferred Shares to be converted

Aggregate Stated Value of such Preferred Shares to be converted:

Aggregate accrued and unpaid Dividends and accrued and unpaid Late Charges with respect to such Preferred Shares and such Aggregate Dividends to be converted:

AGGREGATE CONVERSION AMOUNT TO BE CONVERTED:

This Conversion Notice shall constitute a representation by the Holder submitting this Conversion Notice that after giving effect to the conversion provided for in this Conversion Notice, the Holder (together with its Attribution Parties) will not have beneficial ownership (together with the beneficial ownership of such Person's Attribution Parties) of a number of shares of Common Stock which exceeds the Maximum Percentage of the total outstanding shares of Common Stock of the Company as determined based on the Reported Outstanding Share Number provided by the Company and otherwise pursuant to the provisions of Section 4(d)(i) of the Certificate of Designations. By submitting this Conversion Notice to the Company, the Holder agrees and acknowledges that the Company shall be entitled rely on the foregoing representation.

Please confirm the following information:

Conversion Price:

Number of shares of Common Stock to be issued:

Installment Amount(s) to be reduced (and corresponding Installment Date(s)) and amount of reduction:

If this Conversion Notice is being delivered with respect to an Triggering Event Conversion, check here if Holder is electing to use the following Triggering Event Conversion Price: \_\_\_\_\_

If this Conversion Notice is being delivered with respect to an Acceleration, check here if Holder is electing to use the following Installment Conversion Price:\_\_\_\_\_

A-39

---



TABLE OF CONTENTS

Please issue the Common Stock into which the applicable Preferred Shares are being converted to Holder, or for its benefit, as follows:

Check here if requesting delivery as a certificate to the following name and to the following address:

Issue to:

Check here if requesting delivery by Deposit/Withdrawal at Custodian as follows:

DTC Participant:

DTC Number:

Account Number:

Date: , ,

Name of Registered Holder

By:

Name:

Title:

Tax ID:

Facsimile:

E-mail Address:

A-40

---

TABLE OF CONTENTS

EXHIBIT II

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs American Stock Transfer & Trust Company to issue the above indicated number of shares of Common Stock.

FUELCELL ENERGY, INC.

By:

Name:

Title:

A-41

---

TABLE OF CONTENTS  
PROSPECTUS

\$200,000,000  
Common Stock  
Preferred Stock  
Debt Securities  
Warrants  
Units

We may from time to time offer and sell, in one or more series or issuances and on terms that we will determine at the time of the offering, any combination of common stock, preferred stock, debt securities, and warrants, either separately or in units, up to an aggregate amount of \$200,000,000.

This prospectus describes the general manner in which our securities may be offered using this prospectus. We will provide specific terms of the securities, including the offering prices, in one or more supplements to this prospectus. The supplements may also add, update, or change information contained in this prospectus. You should read this prospectus and the prospectus supplement relating to the specific issue of securities carefully before you invest. We may offer the securities independently or together in any combination for sale directly to purchasers or through underwriters, dealers or agents to be designated at a future date. The supplements to this prospectus will provide the specific terms of the plan of distribution.

Our common stock is listed on the Nasdaq Global Market under the symbol "FCEL." On August 9, 2018, the last reported sale price of the shares of our common stock on the Nasdaq Global Market was \$1.20 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" on page 2 of this prospectus and any other risk factors included in any accompanying prospectus supplement and in the documents incorporated by reference in this prospectus for a discussion of the factors you should carefully consider before deciding to purchase these securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

This prospectus may not be used to consummate sales of securities unless, to the extent required by applicable law, it is accompanied by a prospectus supplement.

The date of this prospectus is August 21, 2018.

---

TABLE OF CONTENTS

## Table of Contents

	Page
<u>ABOUT THIS PROSPECTUS</u>	<u>1</u>
<u>SUMMARY</u>	<u>1</u>
<u>RISK FACTORS</u>	<u>2</u>
<u>SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS</u>	<u>19</u>
<u>RATIO OF EARNINGS TO FIXED CHARGES</u>	<u>19</u>
<u>USE OF PROCEEDS</u>	<u>19</u>
<u>SECURITIES WE MAY OFFER</u>	<u>20</u>
<u>DESCRIPTION OF COMMON STOCK</u>	<u>20</u>
<u>DESCRIPTION OF PREFERRED STOCK</u>	<u>21</u>
<u>DESCRIPTION OF DEBT SECURITIES</u>	<u>29</u>
<u>DESCRIPTION OF WARRANTS</u>	<u>39</u>
<u>DESCRIPTION OF UNITS</u>	<u>41</u>
<u>LEGAL OWNERSHIP OF SECURITIES</u>	<u>42</u>
<u>CERTAIN PROVISIONS OF DELAWARE LAW, OUR CHARTER, AND BY-LAWS</u>	<u>45</u>
<u>PLAN OF DISTRIBUTION</u>	<u>47</u>
<u>LEGAL MATTERS</u>	<u>49</u>
<u>EXPERTS</u>	<u>49</u>
<u>WHERE YOU CAN FIND MORE INFORMATION</u>	<u>50</u>
<u>INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE</u>	<u>50</u>

You should rely only on the information contained or incorporated by reference in this prospectus, any accompanying prospectus supplement or any “free writing prospectus” that we may authorize to be delivered to you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information appearing in this prospectus, any prospectus supplement, and the documents incorporated by reference herein and therein are accurate only as of their respective dates. Our business, financial condition, results of operations and prospects may have changed since those dates. Neither this prospectus nor any accompanying prospectus supplement shall constitute an offer or solicitation by anyone in any jurisdiction in which such offer or solicitation is not authorized or in which the person making such offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make such offer or solicitation.

**TABLE OF CONTENTS**

**ABOUT THIS PROSPECTUS**

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a “shelf” registration process. Under this shelf registration process, we may from time to time sell any combination of the securities registered in one or more offerings. We have provided to you in this prospectus a general description of the securities that we may offer. Each time we sell securities, we will, to the extent required by law, provide a prospectus supplement that will contain specific information about the terms of the offering. We may also add, update or change in any accompanying prospectus supplement or any “free writing prospectus” that we may authorize to be delivered to you any of the information contained in this prospectus. To the extent there is a conflict between the information contained in this prospectus and the prospectus supplement, you should rely on the information in the prospectus supplement, provided that if any statement in one of these documents is inconsistent with a statement in another document having a later date — for example, a document incorporated by reference in this prospectus or any prospectus supplement — the statement in the document having the later date modifies or supersedes the earlier statement. This prospectus, together with any accompanying prospectus supplement and any “free writing prospectus” that we may authorize to be delivered to you, includes all material information relating to the offering of our securities.

As permitted by the rules and regulations of the SEC, the registration statement, of which this prospectus forms a part, includes additional information not contained in this prospectus. You may read the registration statement and the other reports we file with the SEC at the SEC’s web site or at the SEC’s offices described below under the heading “Where You Can Find More Information.”

**SUMMARY**

FuelCell Energy, Inc.

FuelCell Energy, Inc., together with its subsidiaries, 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.

**Corporate Information**

Our principal executive offices are located at 3 Great Pasture Road, Danbury, Connecticut 06810. Our telephone number is (203) 825-6000. We maintain a web site at the following Internet address: [www.fuelcellenergy.com](http://www.fuelcellenergy.com). The information on, or that can be accessed through, our web site is not incorporated by reference in this prospectus, and you should not consider it to be a part of this prospectus. Our web site address is included as an inactive textual reference only.

In this prospectus, unless otherwise stated or the context otherwise requires, references to “FuelCell Energy,” the “Company,” “we,” “us” and “our” and similar references refer to FuelCell Energy, Inc.

TABLE OF CONTENTS

RISK FACTORS

An investment in our securities involves a high degree of risk. You should carefully consider the specific risk factors discussed below and in any accompanying prospectus supplement, as well as the risk factors set forth in the documents and reports filed with the SEC that are incorporated by reference herein and therein, before you make an investment decision pursuant to this prospectus and any accompanying prospectus supplement. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. 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 substantial 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 \$91.6 million as of April 30, 2018. This includes approximately \$46.4 million of debt at our project finance subsidiaries and \$45.2 million at the corporate level. The majority of our debt is long-term with \$10.1 million due within twelve months as of April 30, 2018. We also have approximately \$40 million of borrowing capacity under a revolving construction and term project financing facility. 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 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, our Loan and Security Agreement with Hercules, as amended, contains 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. As of April 30, 2018, the outstanding loan balance under the Loan and Security Agreement, as amended, was \$26.8 million, including accretion of an end-of-term payment. In connection with the third amendment to the Loan and Security Agreement in March 2018, we drew a term loan advance of \$13.1 million, which resulted in an aggregate amount of outstanding term loan advances of \$25.0 million as of April 30, 2018.

## TABLE OF CONTENTS

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. Volatility of electricity and fuel prices may impact sales of our products and services in the markets in which we compete.

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 oil, gas or coal or local utility electricity costs. Significant decreases (or short term increases) in the price of these 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 our Company, our customers and our suppliers.

Financial market volatility can affect both 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 our 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 this, we often require substantial cash down payments in advance of delivery. Our growth strategy assumes that financing will be available for our 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 our 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 cause 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 and 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. This could have an adverse impact on our revenue and cash flow.

We have signed product sales contracts, engineering, procurement and construction contracts (EPC), power purchase agreements (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.

3

---



TABLE OF CONTENTS

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 stack 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 stack 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, labor and regulatory compliance, inability to obtain necessary permits, interconnections or other approvals on acceptable terms or on schedule and 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, and 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 the 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.

TABLE OF CONTENTS

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 (LG/Rolls Royce partnership and 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, and 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:

TABLE OF CONTENTS

- 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, 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.

As our relationship with POSCO Energy Co., Ltd. (“POSCO Energy”) changes, we may not be able to succeed in our efforts to access the South Korean and Asian markets.

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 our Master Service Agreement with POSCO Energy. 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 and that it intends to exit the fuel cell business during 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. We cannot predict the outcome of any discussions with POSCO Energy, the future status or scope of our relationship with POSCO Energy, or whether our relationship with POSCO Energy will continue in the future. If we enter into new or amended agreements with POSCO Energy or any successor to POSCO

6

---

TABLE OF CONTENTS

Energy, those agreements may be on terms that are less favorable to us than our existing agreements. If our relationship with POSCO Energy ends, or continues on terms that are less favorable to us, our efforts to access the South Korean and Asian markets, which are complex markets, may not be successful or may be 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 earnings in our financial statements should we determine that our goodwill, other intangible assets (i.e., in process research and development (“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 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 April 30, 2018 and October 31, 2017 was \$55.3 million and \$74.5 million, respectively, which includes work in process inventory totaling \$35.9 million and \$54.4 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 onto 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 have 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

TABLE OF CONTENTS

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.

We are, from time to time depending on our overall employee count, classified for government contracting as a "Large Business", which could adversely affect our rights to own future patents under Department of Energy ("DOE")-funded contracts.

We are, from time to time depending on our overall employee count, classified as a "large business" under DOE contracts. This allows us to own the patents that we develop under new DOE contracts if we obtain a waiver from the DOE. A "large business" under applicable government regulations generally consists of more than 500 employees averaged over a one year period. We will not own future patents we develop as a large business under new contracts, grants or cooperative agreements funded by the DOE, unless we obtain a patent waiver from the DOE. Should we not obtain a patent waiver and outright ownership, we would nevertheless retain exclusive rights to any such patents, so long as we continue to commercialize the technology covered by 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.

TABLE OF CONTENTS

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 July 31, 2018, we, excluding our subsidiaries, had 92 U.S. patents and 123 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 July 31, 2018, we also had 35 patent applications pending in the U.S. and 118 patent applications pending in other jurisdictions. Our U.S. patents will expire between 2018 and 2035, and the current average remaining life of our U.S. patents is approximately 8.8 years. Our subsidiary, Versa Power Systems, Ltd., as of July 31, 2018, had 35 U.S. patents and 75 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 6.1 years. As of July 31, 2018, Versa Power Systems, Ltd. also had three pending U.S. patent applications and 16 patent applications pending in other jurisdictions. In addition, our subsidiary, FuelCell Energy Solutions, GmbH, has license rights to use FuelCell Energy's carbonate fuel cell technology, and, as of July 31, 2018, had 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.

TABLE OF CONTENTS

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.

We recently announced an increase in our annual production. 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.



TABLE OF CONTENTS

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.

Several U.S. states have created and adopted, or are in the process of creating, their own interconnection regulations covering both technical and financial requirements for interconnection to utility grids. Depending on the complexities of the requirements, installation of our systems may become burdened with additional costs that might have a negative impact on our ability to sell systems. The Institute of Electrical and Electronics Engineers has been working to create an interconnection standard addressing the technical requirements for distributed generation to interconnect to utility grids. Many parties are hopeful that this standard will be adopted nationally to help reduce the barriers to deployment of distributed generation such as fuel cells; however, this standard may not be adopted nationally thereby limiting the commercial prospects and profitability of our fuel cell systems.

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.

TABLE OF CONTENTS

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.

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

**TABLE OF CONTENTS**

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. The terms and conditions of many of these relationships allow for termination by the third parties. Termination 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 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 production, manufacturing, financial, logistics, sales, marketing and administrative functions. Additionally, we collect and store data that is sensitive to us. 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



## TABLE OF CONTENTS

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. 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 may also adopt changes required by the Financial Accounting Standards Board and the 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;

TABLE OF CONTENTS

- 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 charter 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 FCE FuelCell Energy, Ltd. Series 1 Preferred Shares, our Series B Preferred Stock and our Series C 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.

15

---



TABLE OF CONTENTS

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 FuelCell Energy, Ltd. (“FCE Ltd.”), one of our indirect subsidiaries, 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.

TABLE OF CONTENTS

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 shall 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 \$1.30 (our common stock closing price on July 31, 2018), and an exchange rate of U.S. \$1.00 to Cdn. \$1.30 (exchange rate on July 31, 2018) at the time of conversion, we would be required to issue approximately 2,762,104 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, after giving effect to the December 3, 2015 reverse stock split, 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.

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

We have the obligation to make bimonthly redemption payments on the Series C Preferred Shares commencing on November 1, 2017. These mandatory redemption payments may 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. 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. If we cannot satisfy the equity conditions, we will not be able to make 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 C 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 C 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 C Preferred Shares to require us to redeem such 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. 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 Certificate of Designations for the Series C Preferred Shares and would also cause a failure of the equity conditions. Thus, if we fail to maintain trading or listing, as applicable, or if for any other reason we are required to repurchase the Series C 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, and such an acceleration could have a material adverse effect on our business, results of operations and financial condition.

TABLE OF CONTENTS

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

The rights of the holders of the Series C Preferred Shares rank senior to the obligations to our common stockholders. 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. Further, the holders of Series C 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 Series C Preferred Shares. The existence of such a senior security could have an adverse effect on the value of our common stock.

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

Under the Certificate of Designations establishing the terms of the Series C Preferred Shares, 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 with redemption occurring after the maturity date of the Series C 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 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.

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series C Preferred Shares will dilute the ownership interests of existing holders of shares of our common stock. As of July 31, 2018, the aggregate outstanding liquidation preference of the Series C Preferred Shares totaled \$11.7 million. If this amount is converted into our common stock at its initial conversion price of \$1.84, we would issue 6,348,401 shares of common stock upon their 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 C Preferred Shares is adjustable based on certain events, including in the event of a triggering event and 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.

**TABLE OF CONTENTS**

**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus, any prospectus supplement, the documents incorporated by reference herein and therein and any related free writing prospectuses issued by us may contain forward-looking statements about our financial condition, results of operations, plans, objectives, future performance and business. Statements preceded by, followed by or that include words such as “expects,” “anticipates,” “estimates,” “projects,” “intends,” “plans,” “believes,” “predicts,” “should,” “would,” “may,” “forecast,” or similar expressions are intended to identify some of the forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 and are included, along with this statement, for purposes of complying with the safe harbor provisions of that Act. The realization of matters expressed in forward-looking statements involves risks and uncertainties. Our actual results may differ materially from those contemplated by the forward-looking statements due to, among other factors, the risks and uncertainties described in or incorporated by reference into this prospectus, including under “Risk Factors.” Any forward-looking statement contained in this prospectus and any prospectus supplement and the documents incorporated by reference herein and therein speaks only as of the date on which the statement was made, and we undertake no obligation to update publicly or revise any forward-looking statements for any reason, whether as a result of new information, future events or otherwise. New risks emerge from time to time, and we cannot predict all of the risks that may impact our business or the extent to which any particular risk, or combination of risks, may cause actual results to differ materially from those contained in any forward-looking statement.

**RATIO OF EARNINGS TO FIXED CHARGES**

Our ratio of earnings to fixed charges for each of the five most recently completed fiscal years and any required interim periods will be specified in a prospectus supplement or in a document that we file with the SEC and incorporate by reference pertaining to the issuance, if any, by us of debt securities in the future.

**USE OF PROCEEDS**

Unless otherwise provided in the applicable prospectus supplement, we currently intend to use the net proceeds from the sale of the securities from offerings under this prospectus for project development, project financing, working capital support and general corporate purposes. Our management will have broad discretion in the allocation of the net proceeds of these offerings for any purpose, and investors will be relying on the judgment of our management with regard to the use of these net proceeds. We may set forth additional information on the use of proceeds from the sale of securities that we offer under this prospectus in a prospectus supplement relating to the specific offering. We have not determined the amount of net proceeds to be used specifically for the foregoing purposes. We may invest the net proceeds temporarily until we use them for their stated purpose.

## TABLE OF CONTENTS

### SECURITIES WE MAY OFFER

The following is a general description of the terms and provisions of the securities we may offer and sell under this prospectus. These summaries are not meant to be complete. This prospectus and the applicable prospectus supplement will contain the material terms and conditions of each security. Any prospectus supplement may add, update or change the terms and conditions of the securities as described in this prospectus.

### DESCRIPTION OF COMMON STOCK

The following description sets forth certain general terms of our common stock. While we believe that the following description covers the material terms of our common stock, the description may not contain all of the information that is important to you. The description set forth below is not complete and is subject to, and qualified in its entirety by, our certificate of incorporation, as amended (the “Charter”), our amended and restated by-laws (“By-laws”) and the Delaware General Corporation Law (“DGCL”). Copies of the Charter and the By-laws have been filed with the SEC. You are urged to read the Charter and the By-laws in their entirety.

#### Authorized and Outstanding Common Stock

Under the Charter, we are authorized to issue 225,000,000 shares of common stock, par value \$0.0001 per share. On July 31, 2018, 92,280,169 shares of our common stock were issued and outstanding.

In addition, as of July 31, 2018, there were outstanding options to purchase 323,533 shares of our common stock under our equity incentive plans, 3,281,744 shares of our common stock were available upon vesting of outstanding restricted stock units issued under our equity incentive plans, 1,394,365 shares of our common stock were available for future issuance under our equity incentive plans, 500,000 shares of our common stock were available for future issuance under our employee stock purchase plan and 19,249,364 shares of our common stock were available for future issuance under warrants. As of July 31, 2018, there were 187 holders of record of our common stock. This does not include the number of persons whose stock is held in nominee or “street” name accounts through brokers.

#### Voting Rights

The holders of our common stock have one vote per share. Holders of our common stock are not entitled to vote cumulatively for the election of directors. Generally, all matters to be voted on by stockholders (including the election of directors in uncontested elections) must be approved by a majority of the votes properly cast on the matter at a meeting at which a quorum is present, subject to any voting rights granted to holders of any then outstanding preferred stock. A plurality voting standard applies in contested director elections (i.e., when the number of nominees for election as directors exceeds the number of directors to be elected at such meeting).

#### Dividends

Holders of our common stock will share ratably in any dividends declared by the board of directors, subject to the preferential rights of any of our preferred stock then outstanding. Dividends consisting of shares of our common stock may be paid to holders of shares of our common stock. We have never paid a cash dividend on our common stock and do not anticipate paying any cash dividends on common stock in the foreseeable future.

#### Certain Participation Rights

Under the terms set forth in the Securities Purchase Agreement, dated as of June 9, 2009, by and between us and POSCO Energy, and the Securities Purchase Agreement, dated as of April 30, 2012, by and between us and POSCO Energy, we granted POSCO Energy the right to receive notice of and to participate in any issuance of new equity securities by us, other than issuances as a dividend or distribution on outstanding securities, upon the conversion or exercise of outstanding securities, to employees, directors or consultants pursuant to certain plans or arrangements, pursuant to the acquisition of another corporation or its assets, or of up to \$5 million in securities to fund obligations to make cash dividends or interest

## TABLE OF CONTENTS

payments on outstanding securities. Pursuant to such participation rights, POSCO Energy has the right to subscribe for and purchase its pro rata portion of such offered securities; provided, that POSCO Energy's participation rights under the April 2012 Securities Purchase Agreement will terminate when POSCO Energy owns less than 898,868 shares of our common stock (as adjusted for the 2015 reverse stock split).

### Other Rights

In the event of our liquidation, dissolution or winding up, after payment of liabilities and liquidation preferences on any of our preferred stock then outstanding, the holders of shares of our common stock are entitled to share ratably in all assets available for distribution. Holders of shares of our common stock (in their capacity as holders of shares of our common stock) have no preemptive rights or rights to convert their shares of our common stock into any other securities. There are no redemption or sinking fund provisions applicable to our common stock.

### Listing on the Nasdaq Global Market

Our common stock is listed on the Nasdaq Global Market under the symbol "FCEL".

### Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, New York, New York.

## DESCRIPTION OF PREFERRED STOCK

The following description sets forth certain general terms of our preferred stock. While we believe that the following description covers the material terms of our preferred stock, the description may not contain all of the information that is important to you. The description set forth below is not complete and is subject to, and qualified in its entirety by, the Charter (including the Certificates of Designation relating to our Series B Preferred Stock and Series C Preferred Stock (in each case as defined below)), the By-laws, the DGCL, and, for any other series of preferred stock, the certificate of designations relating to such particular series of preferred stock. The particular terms of any series of preferred stock offered by any prospectus supplement and the extent, if any, to which these general provisions may apply to that series of preferred stock will be described in the prospectus supplement relating to that series of preferred stock. Copies of the Charter (including Certificates of Designation) and the By-laws have been filed with the SEC. You are urged to read the Charter (including Certificates of Designation) and the By-laws in their entirety.

### Authorized and Outstanding Preferred Stock

Under the Charter, we are authorized to issue 250,000 shares of preferred stock, par value \$0.01 per share, in one or more series designated by our board of directors, of which 105,875 shares of our preferred stock have been designated as 5% Series B Cumulative Convertible Perpetual Preferred Stock ("Series B Preferred Stock") and 33,500 shares of our preferred stock have been designated as Series C Convertible Preferred Stock ("Series C Preferred Stock" and, such shares, the "Series C Preferred Shares"). As of July 31, 2018, 64,020 shares of our Series B Preferred Stock and 11,681 shares of our Series C Preferred Stock were issued and outstanding. No other shares of our preferred stock are issued and outstanding. As of July 31, 2018, there were 1,000,000 Class A Cumulative Redeemable Exchangeable Preferred Shares (the "Series 1 Preferred Shares") of FCE Ltd., our Canadian subsidiary, issued and outstanding, which are convertible into shares of our common stock. As of July 31, 2018, we were obligated, if and when the holder of the Series 1 Preferred Shares exercises its conversion rights, to issue approximately 15,166 shares of our common stock upon conversion of the Series 1 Preferred Shares.

As of July 31, 2018, we were obligated, if and when the holders exercise their conversion rights, to issue approximately 454,043 shares of our common stock upon conversion of the Series B Preferred Stock.

As of July 31, 2018, the aggregate liquidation preference of the Series C Preferred Shares totaled \$11.7 million. If this amount is converted into our common stock at the initial conversion price of \$1.84, we would issue 6,348,401 shares of common stock upon conversion (without giving effect to any limitations on conversion).

TABLE OF CONTENTS

## Series C Preferred Shares

We issued an aggregate of 33,500 shares of our Series C Preferred Stock, \$0.01 par value and \$1,000 stated value per share, for net proceeds of \$27.9 million on September 8, 2017. Each share of Series C Preferred Stock was sold at a price of \$895.52 for gross proceeds of approximately \$30.0 million. As of July 31, 2018, there were 11,681 shares of Series C Preferred Stock issued and outstanding.

The Series C Preferred Shares are convertible into shares of common stock, subject to the beneficial ownership limitations provided in the Certificate of Designations for the Series C Preferred Stock (the “Series C Certificate of Designations”), at a conversion price equal to \$1.84 per share of common stock (“Conversion Price”), subject to adjustment as provided in the Series C Certificate of Designations, including adjustments if we sell shares of common stock or equity securities convertible into or exercisable for shares of common stock, at prices below \$1.84 per share, in certain types of transactions, which may potentially include sales of common stock pursuant to our At Market Issuance Sales Agreement with B. Riley FBR, Inc. and Oppenheimer & Co. Inc. 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 \$1.84 per share and 85% of the lowest volume weighted average price (“VWAP”) of the common stock of the five Trading Days (as such term is defined in the Series C Certificate of Designations) 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 us.

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 “Maturity Date”), inclusive, we will redeem the stated value of Series C Preferred Shares in thirty-three equal installments of \$1.0 million (each bimonthly amount, an “Installment Amount” and the date of each such payment, an “Installment Date”). The holders will have the ability to defer installment payments, but not beyond the Maturity Date. In addition, during each period commencing on the 11th trading day prior to an Installment Date and prior to the immediately subsequent Installment Date, the holders may elect to accelerate the conversion of Series C 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 Installment Amounts, or (b) the number of Series C Preferred Shares subject to prior accelerations exceeds in the aggregate twelve Installment Amounts. Subject to certain conditions as provided in the Series C Certificate of Designations, we may elect to pay the Installment Amounts in cash or shares of common stock or in a combination of cash and shares of common stock. Installment Amounts paid in shares will be that number of shares of common stock equal to (a) the applicable 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 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 Installment Date as applicable, provided that we meet standard equity conditions. We shall make such election no later than the eleventh trading day immediately prior to the applicable Installment Date.

If we elect or are required to pay an Installment Amount in whole or in part in cash, the amount paid will be equal to 108% of the applicable Installment Amount.

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 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.

TABLE OF CONTENTS

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 we make the entire payment required.

In the event of the liquidation, dissolution, or winding up of our Company, 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.

Shares of Series C Preferred Stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
- junior to our debt obligations;
- junior to our outstanding Series B Preferred Stock; and
- effectively junior to our 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 our Charter or By-laws 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.

There is no established public trading market for the Series C Preferred Shares, and we do not expect a market to develop for the Series C Preferred Shares. The Series C Preferred Shares will not be listed on Nasdaq or any other exchange or trading market. We do not plan on making an application to list the Series C Preferred Shares on The Nasdaq Stock Market, any other national securities exchange or any other nationally recognized trading system. Until September 8, 2018, the holders of the Series C 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 us or our 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.

**Series B Preferred Stock**

We have 105,875 shares of our Series B Preferred Stock authorized for issuance. As of July 31, 2018, there were 64,020 shares of Series B Preferred Stock issued and outstanding. The shares of our Series B Preferred Stock and the shares of our common stock issuable upon conversion of the shares of our Series B Preferred Stock are covered by a registration rights agreement. The following is a summary of certain provisions of our Series B Preferred Stock.

**Ranking**

Shares of Series B Preferred Stock rank with respect to dividend rights and rights upon our liquidation, winding up or dissolution:

- senior to shares of our common stock;
-



junior to our debt obligations; and

23

---

TABLE OF CONTENTS

effectively junior to our subsidiaries' (i) existing and future liabilities and (ii) capital stock held by others.

Dividends

The Series B Preferred Stock pays cumulative annual dividends of \$50.00 per share which are payable quarterly in arrears on February 15, May 15, August 15 and November 15. Unpaid accumulated dividends do not bear interest. The dividend rate is subject to upward adjustment as set forth in the Certificate of Designation for the Series B Preferred Stock (the "Series B Certificate of Designation") if we fail to pay, or to set apart funds to pay, any quarterly dividend. The dividend rate is also subject to upward adjustment as set forth in the Registration Rights Agreement entered into with the initial purchasers of the Series B Preferred Stock (the "Registration Rights Agreement") if we fail to satisfy our registration obligations with respect to the Series B Preferred Stock (or the underlying common shares) under the Registration Rights Agreement.

No dividends or other distributions may be paid or set apart for payment on our common shares (other than a dividend payable solely in shares of a like or junior ranking) unless all accumulated and unpaid Series B Preferred Stock dividends have been paid or funds or shares of common stock have been set aside for payment of accumulated and unpaid Series B Preferred Stock dividends.

The dividend on the Series B Preferred Stock may be paid in cash; or at the option of the Company, in shares of our common stock, which will be registered pursuant to a registration statement to allow for the immediate sale of these common shares in the public market. Dividends of \$3.2 million were paid in each of the years ended October 31, 2017, 2016 and 2015. There were no cumulative unpaid dividends as of July 31, 2018.

Liquidation

The holders of Series B Preferred Stock are entitled to receive, in the event that we are liquidated, dissolved or wound up, whether voluntarily or involuntarily, \$1,000.00 per share plus all accumulated and unpaid dividends to the date of that liquidation, dissolution, or winding up ("Liquidation Preference"). Until the holders of Series B Preferred Stock receive their Liquidation Preference in full, no payment will be made on any junior shares, including shares of our common stock. After the Liquidation Preference is paid in full, holders of the Series B Preferred Stock will not be entitled to receive any further distribution of our assets. As of July 31, 2018, the Series B Preferred Stock had a Liquidation Preference of \$64.0 million.

Conversion Rights

Each share of 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 \$141.00 per share plus cash in lieu of fractional shares. The conversion rate is subject to adjustment upon the occurrence of certain events as described in the Series B Certificate of Designation. The conversion rate is not adjusted for accumulated and unpaid dividends. If converted, holders of Series B Preferred Stock do not receive a cash payment for all accumulated and unpaid dividends; rather, all accumulated and unpaid dividends are canceled.

We may, at our option, cause shares of Series B Preferred Stock to be automatically converted into that number of shares of our common stock that are issuable at the then prevailing conversion rate. We may exercise our conversion right only if the closing price of our common stock exceeds 150% of the then prevailing conversion price (\$141.00 per share as of July 31, 2018) for 20 trading days during any consecutive 30 trading day period, as described in the Series B Certificate of Designation.

Redemption

We do not have the option to redeem the shares of Series B Preferred Stock. However, holders of the Series B Preferred Stock can require us to redeem all or part of their shares at a redemption price equal to the Liquidation Preference of the shares to be redeemed in the case of a "fundamental change" (as described in the Series B Certificate of Designation).

TABLE OF CONTENTS

We may, at our option, elect to pay the redemption price in cash or, in shares of our common stock valued at a discount of 5% from the market price of shares of our common stock, or any combination thereof. Notwithstanding the foregoing, we may only pay such redemption price in shares of our common stock that are registered under the Securities Act of 1933, as amended, or the Securities Act, and eligible for immediate sale in the public market by non-affiliates of the Company.

Voting Rights

Holders of Series B Preferred Stock currently have no voting rights; however, holders may receive certain voting rights, as described in the Series B Certificate of Designation, if (a) dividends on any shares of Series B Preferred Stock, or any other class or series of stock ranking on a parity with the Series B Preferred Stock with respect to the payment of dividends, shall be in arrears for dividend periods, whether or not consecutive, for six calendar quarters or (b) we fail to pay the redemption price, plus accrued and unpaid dividends, if any, on the redemption date for shares of Series B Preferred Stock following a fundamental change.

So long as any shares of Series B Preferred Stock remain outstanding, we will not, without the consent of the holders of at least two-thirds of the shares of Series B Preferred Stock outstanding at the time (voting separately as a class with all other series of preferred stock, if any, on parity with our Series B Preferred Stock upon which like voting rights have been conferred and are exercisable) issue or increase the authorized amount of any class or series of shares ranking senior to the outstanding shares of the Series B Preferred Stock as to dividends or upon liquidation. In addition, we will not, subject to certain conditions, amend, alter or repeal provisions of our Charter, including the Series B Certificate of Designation, whether by merger, consolidation or otherwise, so as to adversely amend, alter or affect any power, preference or special right of the outstanding shares of Series B Preferred Stock or the holders thereof without the affirmative vote of not less than two-thirds of the issued and outstanding Series B Preferred Stock shares.

Series 1 Preferred Shares

As of July 31, 2018, there were 1,000,000 Series 1 Preferred Shares of FCE Ltd. issued and outstanding, which are convertible into shares of our common stock. We have guaranteed the obligations of FCE Ltd. under the terms of the Series 1 Preferred Shares.

On March 31, 2011 and April 1, 2011, we entered into agreements with Enbridge, the sole holder of the Series 1 Preferred Shares, to modify the provisions of the Series 1 Preferred Shares. Consistent with the previous Series 1 Preferred Share agreement, we continue to guarantee the return of principal and dividend obligations of FCE Ltd. to the holders of Series 1 Preferred Shares under the modified agreement.

The terms of the Series 1 Preferred Shares require (a) annual dividend payments of Cdn. \$500,000 and (b) annual return of capital payments of Cdn. \$750,000. These payments commenced on March 31, 2011 and will end on December 31, 2020. Dividends accrue at a 1.25% quarterly rate on the unpaid principal balance, and additional dividends will accrue on the cumulative unpaid dividends (inclusive of the Cdn. \$12.5 million unpaid dividend balance as of the modification date) at a rate of 1.25% 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 shall 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.

In addition to the above, the significant terms of the Series 1 Preferred Shares include the following:

- 
- Voting Rights — The holders of the Series 1 Preferred Shares are not entitled to any voting rights.
- 
- Dividends — Dividend payments can be made in cash or in shares of our common stock, at the option of FCE Ltd., and if common stock is issued it may be unregistered. If FCE Ltd. elects to make such payments by issuing shares of our common stock, the number of shares of common stock is determined by dividing the cash dividend obligation by 95% of the volume average price



TABLE OF CONTENTS

in U.S. dollars at which board lots of the common shares have been traded on Nasdaq during the 20 consecutive trading days preceding the end of the calendar quarter for which such dividend in common shares is to be paid, converted into Canadian dollars using the Bank of Canada's noon rate of exchange on the day of determination.

- Redemption — The Series 1 Preferred Shares are redeemable by FCE Ltd. for Cdn. \$25.00 per share, less any amounts paid as a return of capital in respect of such share, plus all unpaid dividends and accrued interest. Holders of the Series 1 Preferred Shares do not have any mandatory or conditional redemption rights.

- Liquidation or Dissolution — In the event of the liquidation or dissolution of FCE Ltd., the holders of Series 1 Preferred Shares will be entitled to receive Cdn. \$25.00 per share, less any amounts paid as a return of capital in respect of such shares, plus all unpaid dividends and accrued interest. We have guaranteed any liquidation obligations of FCE Ltd.

- Exchange Rights — A holder of Series 1 Preferred Shares has the right to exchange such shares for fully paid and non-assessable shares of our common stock at the following exchange prices (after giving effect to the December 3, 2015 reverse stock split):

- Cdn. \$1,664.52 per share of our common stock after July 31, 2015 until July 31, 2020; and

- at any time after July 31, 2020, at a price equal to 95% of the then current market price (in Cdn.\$) of shares of our common stock at the time of conversion.

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 \$1.30 (our common stock closing price on July 31, 2018) and an exchange rate of U.S. \$1.00 to Cdn. \$1.30 (exchange rate on July 31, 2018) at the time of conversion, we would be required to issue approximately 2,762,104 shares of our common stock.

Terms of Preferred Stock to Be Offered

This section describes the general terms of our preferred stock to which any prospectus supplement may relate. Certain terms of any series of our preferred stock offered by any prospectus supplement will be described in such prospectus supplement. If so indicated in the prospectus supplement, the terms of that series may differ from the terms described below. The following description of the terms of our preferred stock that may be issued in the future is a summary. You should refer to our Charter and any certificate of amendment to our Charter or Certificate of Designations filed with the SEC in connection with the offering of our preferred stock for a full description of the terms of the preferred stock.

Under our Charter, our board of directors has the authority, without further stockholder action, to issue from time to time, preferred stock in one or more series and for such consideration as may be fixed from time to time by our board of directors. Our board of directors also has the authority to fix and determine, in the manner provided by law, the relative rights and preferences of the shares of any series so established, such as dividend and voting rights. Our Charter authorizes the issuance of 250,000 shares of preferred stock. Prior to the issuance of each series of preferred stock, our board of directors will adopt resolutions creating and designating the series as a series of preferred stock. Our board of directors may, without stockholder approval, issue preferred stock with voting and other rights that could adversely affect the voting power and other rights of the holders of our common stock and could have anti-takeover effects.

Our preferred stock will have the dividend, liquidation, redemption, voting and conversion rights set forth below unless otherwise specified in the applicable prospectus supplement. You should read the prospectus supplement relating to the particular series of preferred stock offered thereby for specific terms, including:

-

the number of shares to constitute such series and the distinctive designation of such series;

•

the dividend rate on the shares of such series and the preferences, if any, and the special and relative rights of the shares of such series as to dividends;

•

whether or not the shares of such series shall be redeemable, and, if redeemable, the price, terms and manner of redemption;

26

---

TABLE OF CONTENTS

- the preferences, if any, and the special and relative rights of the shares of such series upon liquidation;

- whether or not the shares of such series shall be subject to the operation of a sinking or purchase fund and, if so, the terms and provisions of such fund;

- whether or not the shares of such series shall be convertible into shares of any other class or of any other series of the same or any other class of stock and, if so, the conversion price or ratio and other conversion rights;

- the conditions under which the shares of such series shall have separate voting rights or no voting rights; and

- such other designations, preferences and relative, participating, optional or other special rights and qualifications, limitations or restrictions of such series of preferred stock.

Unless otherwise specified in the applicable prospectus supplement, the shares of each series of preferred stock will, upon issuance, rank equally in all respects with each other then-outstanding series of preferred stock.

If our board of directors decides to issue any preferred stock, it may discourage or make more difficult a merger, tender offer, business combination, or proxy contest, assumption of control by a holder of a large block of our securities, or the removal of incumbent management, even if these events were favorable to the interests of stockholders. Our board of directors, without stockholder approval, may issue preferred stock with voting and conversion rights and dividend and liquidation preferences that may adversely affect the holders of our other equity or debt securities. Additionally, the issuance of preferred stock may decrease the market price of our common stock and may adversely affect the voting and other rights of the holders of our common stock.

Ranking

Any series of our preferred stock will, with respect to dividend rights and rights on liquidation, winding up or dissolution, rank:

- senior to all classes of our common stock and to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank junior to that preferred stock;

- equally with all equity securities issued by us, the terms of which specifically provide that the equity securities will rank equally with that preferred stock; and

- junior to all equity securities issued by us, the terms of which specifically provide that the equity securities will rank senior to that preferred stock.

Dividends

The holders of our preferred stock will be entitled to receive, when, as and if declared by our board of directors, dividends at such rates and on such dates as will be specified in the applicable prospectus supplement. Such rates may be fixed or variable or both. If variable, the formula used for determining the dividend rate for each dividend period will be specified in the applicable prospectus supplement. Dividends will be payable to the holders of record as they appear on our stock books on such record dates as will be fixed by our board of directors. Dividends may be paid in the form of cash, preferred stock (of the same or a different series) or our common stock, in each case as specified in the applicable prospectus supplement.

Dividends on any series of our preferred stock may be cumulative or noncumulative, as specified in the applicable prospectus supplement. If the dividends on a series of our preferred stock are noncumulative (“Noncumulative Preferred Stock”), and our board of directors fails to declare a dividend payable on a dividend payment date, then the holders of such preferred stock will have no right to receive a dividend in respect to the dividend period relating to such dividend payment date, and we will not be obligated to pay the dividend accrued for such period, whether or not dividends on such preferred stock are declared or paid

27

---



## TABLE OF CONTENTS

on any future dividend payment dates. Dividends on shares of any cumulative series of preferred stock (“Cumulative Preferred Stock”) shall accumulate from and after the day on which such shares are issued, but arrearages in the payment thereof shall not bear interest.

If we have not declared and paid or set apart when due all accrued dividends on each series of our preferred stock through the last preceding dividend date of each such series, we may not declare or pay any dividends on, or make other distributions on, our common stock other than a dividend payable in our common stock.

### Redemption

A series of our preferred stock may be redeemable, in whole or in part, at our option, and may be subject to mandatory redemption pursuant to a sinking fund or otherwise, in each case upon terms, at the times and at the redemption prices specified in the applicable prospectus supplement. Redeemed shares of our preferred stock will become authorized but unissued shares of preferred stock that we may issue in the future.

The terms and conditions under which all or any part of any series of our preferred stock may be redeemed will be established by our board of directors before we issue such series of preferred stock. All shares of our preferred stock that we redeem, or which have been surrendered for conversion or exchange or for cancellation pursuant to any sinking or purchase fund, will return to the status of authorized but unissued shares.

### Conversion Rights

The prospectus supplement relating to a series of convertible preferred stock will describe the terms on which shares of such series are convertible into our common stock.

### Rights Upon Liquidation

Unless the applicable prospectus supplement states otherwise, if we voluntarily or involuntarily liquidate, dissolve or wind up our business, the holders of our preferred stock will be entitled to receive out of our assets available for distribution to stockholders, before any distribution of assets is made to holders of our common stock or any other class or series of shares ranking junior to such preferred stock upon liquidation, liquidating distributions in the amount of the liquidation preference of such preferred stock plus accrued and unpaid dividends (which will not, if such preferred stock is Noncumulative Preferred Stock, include any accumulation in respect of unpaid dividends for prior dividend periods). If we voluntarily or involuntarily liquidate, dissolve or wind up our business and the amounts payable with respect to our preferred stock of any series and any of our other securities ranking equal as to any such distribution are not paid in full, the holders of such preferred stock and of such other shares will share ratably in any such distribution of our assets in proportion to the full respective preferential amounts to which they are entitled. After payment of the full amount of the liquidating distribution to which they are entitled, the holders of our preferred stock of any series will not be entitled to any further participation in any distribution of our assets.

### Voting Rights

Except as described in this section or in the applicable prospectus supplement, or except as expressly required by applicable law, the holders of our preferred stock will not be entitled to vote. If the holders of a series of our preferred stock are entitled to vote and the applicable prospectus supplement does not state otherwise, each such share will be entitled to one vote on matters on which holders of such series of preferred stock are entitled to vote. For any series of our preferred stock having one vote per share, the voting power of such series, on matters on which holders of such series and holders of other series of our preferred stock are entitled to vote as a single class, will depend on the number of shares in such series, not the aggregate stated value, liquidation preference or initial offering price of the shares of such series of preferred stock.

### Registrar and Transfer Agent

The registrar and transfer agent for our preferred stock will be set forth in the applicable prospectus supplement.

## TABLE OF CONTENTS

### DESCRIPTION OF DEBT SECURITIES

The following description of the terms of the debt securities sets forth general terms that may apply to the debt securities and provisions of the indenture that will govern the debt securities, and is not complete. We will describe the particular terms of any debt securities in the prospectus supplement relating to those debt securities.

Our senior debt securities will be issued under an indenture between us and a trustee, a form of which is incorporated by reference into this prospectus and attached as an exhibit to the registration statement of which this prospectus is a part. The indenture relating to the senior debt securities, as amended or otherwise supplemented by any supplemental indentures, is referred to herein as the “senior indenture.” Our subordinated debt securities will be issued under an indenture between us and a trustee, a form of which is incorporated by reference into this prospectus and attached as an exhibit to the registration statement of which this prospectus is a part. The indenture relating to the subordinated debt securities, as amended or otherwise supplemented by any supplemental indentures, is referred to herein as the “subordinated indenture.” The senior indenture and the subordinated indenture are sometimes referred to in this prospectus collectively as the “indenture.” See “Where You Can Find More Information.”

The following is a summary of some provisions of the indenture. The following summary does not purport to be complete, and is subject to, and qualified in its entirety by reference to, all of the provisions of the indenture, including the definitions of specified terms used in the indenture, and the debt securities. We encourage you to read the indenture and the debt securities because they, and not this description, set forth your rights as a holder of our debt securities. We will describe the particular terms of any debt securities in the prospectus supplement relating to those debt securities. Parenthetical section references under this heading are references to sections in the indenture unless we indicate otherwise.

#### General Terms

The indenture does not limit the amount of debt securities that we may issue. (Section 301). The indenture provides that debt securities may be issued up to the principal amount authorized by us from time to time. Unless the applicable prospectus supplement specifies otherwise, the debt securities will be unsecured and will have the same rank as all of our other unsecured debt. Unless a subsidiary is added as a subsidiary guarantor under the indenture, none of our subsidiaries, if any, will have any obligations with respect to the debt securities. Therefore, our rights and the rights of our creditors, including holders of senior debt securities and subordinated debt securities, to participate in the assets of any subsidiary which is not a subsidiary guarantor under the indenture will be subject to the prior claims of the creditors of any such subsidiaries.

We may issue the debt securities in one or more separate series of senior debt securities. (Section 301). The prospectus supplement relating to the particular series of debt securities being offered will specify the particular amounts, prices and terms of those debt securities. These terms may include:

- the title of the debt securities and the series in which the debt securities will be included;
- the authorized denominations and aggregate principal amount of the debt securities;
- the date or dates on which the principal and premium, if any, are payable;
- the rate or rates per annum at which the debt securities will bear interest, if there is any interest, or the method or methods of calculating interest and the date from which interest will accrue;
- the place or places where the principal of and any premium and interest on the debt securities will be payable;
- the dates on which the interest will be payable and the corresponding record dates;

- if applicable, the period or periods within which or the date or dates on which, the price or prices at which, and the terms and conditions on which, the debt securities may be redeemed, in whole or in part, at our option;
- whether the debt securities of the series will be issued in whole or in part;

TABLE OF CONTENTS

- whether the debt securities of the series will be issued in the form of a global security and, if so, the name of the applicable depository and global exchange agent, whether such global form shall be permanent or temporary and, if applicable, the global exchange date;

- if the debt securities of the series are to be issuable initially in the form of a temporary global security, the circumstances under which the temporary global security can be exchanged for definitive debt securities and whether the definitive debt securities will be in global form and whether interest in respect of any portion of such global security payable in respect of an interest payment date prior to the global exchange date shall be paid to any clearing organization with respect to a portion of such global security held for its account;

- any obligation, if any, to redeem, repay or purchase debt securities pursuant to any sinking fund or analogous provisions or at the option of a holder;

- the portion of the principal amount of the debt securities payable upon declaration of the acceleration of the maturity of the debt securities;

- the person to whom any interest on any debt security will be payable if other than the person in whose name the debt security is registered on the applicable record date;

- any events of default, covenants or warranties applicable to the debt securities;

- the currency, currencies or composite currency of denomination of the debt securities;

- the currency, currencies or composite currencies in which payments on the debt securities will be payable and whether the holder may elect payment to be made in a different currency;

- if the amount of payments of principal of (and premium, if any) or interest on the debt securities of the series may be determined with reference to an index, the manner in which such amounts shall be determined;

- if payments of principal of (and premium, if any) or interest on the debt securities of the series are to be made in a foreign currency other than the currency in which such debt securities are denominated, the manner in which the exchange rate with respect to such payments shall be determined;

- whether and under what conditions we will pay additional amounts to holders of the debt securities;

- the terms and conditions of any conversion or exchange provisions in respect of the debt securities;

-

the terms pursuant to which our obligation under the indenture may be terminated through the deposit of money or government obligations;

- the person or persons who shall be security registrar for the debt securities of such series if other than the trustee, and the place or places where the security register for such series shall be maintained and the person or persons who will be the initial paying agent or agents, if other than the trustee;
- whether the debt securities of the series will be subordinated in right of payment to any other indebtedness;
- whether or not the debt securities of that series will be secured or unsecured and the terms relating thereto; and
- any other specific terms of the debt securities not inconsistent with the indenture. (Section 301).

Unless otherwise specified in the applicable prospectus supplement, the debt securities will not be listed on any securities exchange.

30

---

## TABLE OF CONTENTS

Unless the applicable prospectus supplement specifies otherwise, we will issue the debt securities in fully registered form without coupons. If we issue debt securities of any series in bearer form, the applicable prospectus supplement will describe the special restrictions and considerations, including special offering restrictions and special federal income tax considerations, applicable to those debt securities and to payment on and transfer and exchange of those debt securities.

### U.S. Federal Income Tax Considerations

We may issue the debt securities as original issue discount securities, bearing no interest or bearing interest at a rate, which, at the time of issuance, is below market rates, to be sold at a substantial discount below their principal amount. We will describe some special U.S. federal income tax and other considerations applicable to any debt securities that are issued as original issue discount securities in the applicable prospectus supplement. We encourage you to consult with your own tax and financial advisors on these important matters.

### Payment, Registration, Transfer and Exchange

Subject to any applicable laws or regulations, we will make payments on the debt securities at a designated office or agency, unless the applicable prospectus supplement otherwise sets forth. At our option, however, we may also make interest payments on the debt securities in registered form:

- 
- by checks mailed to the persons entitled to interest payments at their registered addresses; or
- 
- by wire transfer to an account maintained by the person entitled to interest payments as specified in the security register.

Unless the applicable prospectus supplement otherwise indicates, we will pay any installment of interest on debt securities in registered form to the person in whose name the debt security is registered at the close of business on the regular record date for that installment of interest. (Section 307). If a holder wishes to receive payment by wire transfer, the holder should provide the paying agent with written wire transfer instructions at least 15 days prior to the payment date.

Unless the applicable prospectus supplement otherwise sets forth, debt securities issued in registered form will be transferable or exchangeable at the agency we may designate from time to time. Debt securities may be transferred or exchanged without service charge, other than any tax or other governmental charge imposed in connection with the transfer or exchange. (Section 305).

### Book-Entry Procedures

The applicable prospectus supplement for each series of debt securities will state whether those debt securities will be subject to the following provisions.

Unless debt securities in physical form are issued, the debt securities will be represented by one or more fully-registered global certificates, in denominations of \$1,000 or any integral multiple of \$1,000. Each global certificate will be deposited with, or on behalf of, The Depository Trust Company, which we refer to in this prospectus as DTC, and registered in its name or in the name of Cede & Co. or other nominee of DTC. No holder of debt securities initially issued as a global certificate will be entitled to receive a certificate in physical form, except as set forth below.

DTC has advised us that:

- 
- DTC is:
- 
- a “banking organization” within the meaning of the New York banking law;
- 
- a limited purpose trust company organized under the New York banking law;

- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and

31

---

TABLE OF CONTENTS

- a “clearing agency” registered pursuant to Section 17A of the Securities Exchange Act of 1934, as amended, or the Exchange Act.

- DTC holds securities for DTC participants and facilitates the settlement of securities transactions between DTC participants through electronic book-entry transfers and pledges, thereby eliminating the need for physical movement of certificates.

- DTC participants include securities brokers and dealers, banks, trust companies, clearing corporations and other organizations.

- Access to DTC’s book-entry system is also available to others, such as banks, brokers, dealers, trust companies and clearing corporations that clear through or maintain a custodial relationship with a DTC participant, either directly or indirectly.

Holders that are not DTC participants but desire to purchase, sell or otherwise transfer ownership of, or other interests in, the debt securities may do so only through DTC participants. In addition, holders of the debt securities will receive all distributions of principal and interest from the trustee through DTC participants. Under the rules, regulations and procedures creating and affecting DTC and its operation, DTC is required to make book-entry transfers of debt securities among DTC participants on whose behalf it acts and to receive and transmit distributions of principal of, and interest on, the debt securities. Under the book-entry system, holders of debt securities may experience some delay in receipt of payments, since the trustee will forward such payments to Cede & Co., as nominee for DTC, and DTC, in turn, will forward the payments to the appropriate DTC participants.

DTC participants will be responsible for distributions to holders of debt securities, which distributions will be made in accordance with customary industry practices. Although holders of debt securities will not have possession of the debt securities, the DTC rules provide a mechanism by which those holders will receive payments and will be able to transfer their interests. Although the DTC participants are expected to convey the rights represented by their interests in any global security to the related holders, because DTC can act only on behalf of DTC participants, the ability of holders of debt securities to pledge the debt securities to persons or entities that are not DTC participants or to otherwise act with respect to the debt securities may be limited due to the lack of physical certificates for the debt securities.

Neither we nor the trustee will be responsible or liable for any aspect of the records relating to, or payments made on account of, beneficial ownership interests in the debt securities or for supervising or reviewing any records relating to such beneficial ownership interests. Since the only “holder of debt securities,” for purposes of the indenture, will be DTC or its nominee, the trustee will not recognize beneficial holders of debt securities as “holders of debt securities,” and beneficial holders of debt securities will be permitted to exercise the rights of holders only indirectly through DTC and DTC participants. DTC has advised us that it will take any action permitted to be taken by a holder of debt securities under the indenture only at the direction of one or more DTC participants to whose accounts with DTC the related debt securities are credited.

All payments we make to the trustee will be in immediately available funds and will be passed through to DTC in immediately available funds.

Physical certificates will be issued to holders of a global security, or their nominees, if:

- DTC advises the trustee in writing that DTC is no longer willing, able or eligible to discharge properly its responsibilities as depository and we are unable to locate a qualified successor; or



we decide in our sole discretion to terminate the book-entry system through DTC. (Section 305).

In such event, the trustee will notify all holders of debt securities through DTC participants of the availability of such physical debt securities. Upon surrender by DTC of a definitive global note representing the debt securities and receipt of instructions for reregistration, the trustee will reissue the debt securities in physical form to holders or their nominees. (Section 305).

Debt securities in physical form will be freely transferable and exchangeable at the office of the trustee upon compliance with the requirements set forth in the indenture.

32

---

TABLE OF CONTENTS

No service charge will be imposed for any registration of transfer or exchange, but payment of a sum sufficient to cover any tax or other governmental charge may be required. (Section 305).

Consolidation, Merger or Sale by the Company

The indenture generally permits a consolidation or merger between us and another U.S. legal entity. It also permits the sale or transfer by us of all or substantially all of our property and assets to another U.S. legal entity. These transactions are permitted if:

- (A) we are the continuing or surviving legal entity, or (B) the resulting or acquiring legal entity, if other than us, assumes all of our responsibilities and liabilities under the indenture, including the payment of all amounts due on the debt securities and performance of the covenants in the indenture;
- immediately after the transaction, no event of default exists; and
- the trustee shall have received an officer's certificate and an opinion stating such consolidation, merger, conveyance, transfer or lease and, if applicable, the corresponding supplemental indenture, are in compliance with the base indenture. (Section 801).

Even though the indenture contains the provisions described above, we are not required by the indenture to comply with those provisions if we sell all of our property and assets to another U.S. legal entity if, immediately after the sale, that legal entity is one of our wholly-owned subsidiaries. (Section 803).

If we consolidate or merge with or into any other legal entity or sell all or substantially all of our assets according to the terms and conditions of the indenture, the resulting or acquiring legal entity will be substituted for us in the indenture with the same effect as if it had been an original party to the indenture. As a result, the successor legal entity may exercise our rights and powers under the indenture, in our name or in its own name and we will be released from all our liabilities and obligations under the indenture and under the debt securities. (Section 802).

Events of Default, Notice and Certain Rights on Default

Unless otherwise stated in the applicable prospectus supplement, an "event of default," when used with respect to any series of debt securities, means any of the following:

- failure to pay interest on any debt security of that series for 30 days after the payment is due;
- failure to pay the principal of or any premium on any debt security of that series when due;
- failure to deposit any sinking fund payment on debt securities of that series when due;
- failure to perform any other covenant in the indenture that applies to debt securities of that series for 90 days after we have received written notice of the failure to perform in the manner specified in the indenture;
- an event of default under any debt by the company or any significant subsidiary of the company (including a default with respect to any series of debt securities) that results in debt of an outstanding principal amount greater than \$50,000,000 becoming or being declared due and payable and such acceleration has not been rescinded or annulled or such debt has not been discharged for 30 days after we have received written notice in the manner specified in the indenture;

- certain events in bankruptcy, insolvency or reorganization; or
- any other event of default that may be specified for the debt securities of that series when that series is created. (Section 501).

If an event of default for any series of debt securities occurs and continues, the trustee or the holders of at least 25% in aggregate principal amount of the outstanding debt securities of the series may declare the entire principal of all the debt securities of that series to be due and payable immediately. If a declaration occurs, the holders of a majority of the aggregate principal amount of the outstanding debt securities of that series can, subject to certain conditions, rescind the declaration. (Section 502).

33

---

TABLE OF CONTENTS

The prospectus supplement relating to each series of debt securities which are original issue discount securities will describe the particular provisions that relate to the acceleration of maturity of a portion of the principal amount of that series when an event of default occurs and continues.

An event of default for a particular series of debt securities does not necessarily constitute an event of default for any other series of debt securities issued under the indenture.

The indenture requires us to furnish an officer's certificate to the trustee each year as to the knowledge of our principal executive, financial or accounting officer of our compliance with all conditions and covenants under the indenture. (Section 1006). The trustee will transmit by mail to the holders of debt securities of a series notice of any default. Other than its duties in the case of a default, the trustee will not be obligated to exercise any of its rights or powers under an indenture at the request, order or direction of any holders, unless the holders offer the trustee indemnification satisfactory to the trustee. (Section 603). If indemnification satisfactory to the trustee is provided, then, subject to certain other rights of the trustee, the holders of a majority in principal amount of the outstanding debt securities of any series may, with respect to the debt securities of that series, direct the time, method and place of:

- conducting any proceeding for any remedy available to the trustee; or
- exercising any trust or power conferred upon the trustee. (Section 512).

The holder of a debt security of any series will have the right to begin any proceeding with respect to the indenture or for any remedy only if:

- the holder has previously given the trustee written notice of a continuing event of default with respect to that series;
- the holders of at least 25% in aggregate principal amount of the outstanding debt securities of that series have made a written request of, and offered indemnification to, the trustee to begin the proceeding;
- the trustee has not started the proceeding within 60 days after receiving the request; and
- the trustee has not received directions inconsistent with the request from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series during those 60 days. (Section 507).

The holders of not less than a majority in aggregate principal amount of any series of debt securities, by notice to the trustee for that series, may waive, on behalf of the holders of all debt securities of that series, any past default or event of default with respect to that series and its consequences. (Section 513). A default or event of default in the payment of the principal of, or premium or interest on, any debt security and certain other defaults may not, however, be waived. (Sections 508 and 513).

**Modification of the Indenture**

We, as well as the trustee for a series of debt securities, may enter into one or more supplemental indentures, without the consent of, or notice to, the holders of any of the debt securities, in order to:

- evidence the succession of another corporation to us and the assumption of our covenants by a successor;
- add to our covenants or surrender any of our rights or powers;
-

add additional events of default for any series;

- change or eliminate any restrictions on the payment of principal of (or premium, if any, on) debt securities, provided such action will not adversely affect the interest of holders of any series of debt securities in any material respect;
- permit or facilitate the issuance of debt securities in uncertificated form, provided such action will not adversely affect the interests of holders of any series of debt securities in any material respect;

34

---

TABLE OF CONTENTS

- secure the debt securities;
- change or eliminate any of the provisions of the indenture, provided that any such change or elimination (a) shall become effective only when there is no debt security outstanding of any series created prior to the execution of such supplemental indenture which is entitled to the benefit of such provisions or (b) shall not apply to any debt security outstanding;
- establish the form or terms of debt securities not yet issued;
- evidence and provide for successor trustees;
- change or eliminate provisions or add any other provisions that are required or desirable in accordance with any amendments to the Trust Indenture Act of 1939, which we refer to in this prospectus as the Trust Indenture Act, on the condition that this action does not adversely affect the interests of any holder of debt securities of any series issued under the indenture in any material respect;
- comply with requirements of the SEC in order to maintain the qualification of the indenture under the Trust Indenture Act;
- provide for uncertificated debt securities in addition to or in place of certificated debt securities;
- make any change that would provide additional rights or benefits to holders of debt securities or any series, or that does not adversely affect the legal rights of such holders under the indenture;
- supplement any provisions of the indenture to facilitate defeasance and discharge of any series of debt securities, provided such action will not adversely affect the interest of the holders of debt securities of such series or any other series;
- conform text of the indenture or any debt securities to the description thereof in any prospectus supplement;
- cure any ambiguity or correct any mistake;
- add a subsidiary guarantor under the indenture or release a subsidiary guarantor in accordance with the indenture; or
- make any other provision with respect to the indenture, provided that such actions will not adversely affect the interests of the holders, as determined in good faith by our board of directors (Section 901).

In addition, with the consent of the holders of not less than a majority in aggregate principal amount of the outstanding debt securities of all series affected by the supplemental indenture, we and the trustee may execute supplemental indentures adding any provisions to or changing or eliminating any of the provisions of the indenture or any supplemental indenture or modifying the rights of the holders of debt securities of that series. No such supplemental indenture may, however, without the consent of the holder of each debt security that is affected:

- change the time for payment of principal or interest on any debt security;
- reduce the principal of, or any installment of principal of, or interest on, any debt security;
- reduce the amount of premium, if any, payable upon the redemption or repayment of any debt security;
- change any obligation of the company to pay additional amounts;
- reduce the amount of principal payable upon acceleration of the maturity of an original issue discount debt security;
- impair the right to institute suit for the enforcement of any payment on or for any debt security;
- reduce the percentage in principal amount of the outstanding debt securities of any series the consent of whose holders is required for modification or amendment of the indenture or for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults;

TABLE OF CONTENTS

- modify the provisions relating to waiver of some defaults or any of the foregoing provisions;
- change the currency of payment;
- adversely affect the right to repayment of debt securities of any series at the option of the holders of those debt securities; or
- change the place of payment. (Section 902).

Any supplemental indenture will be filed with the SEC as an exhibit to:

- a post-effective amendment to the registration statement of which this prospectus is a part;
- an annual report on Form 10-K;
- a quarterly report on Form 10-Q; or
- a current report on Form 8-K.

Defeasance and Covenant Defeasance

When we use the term defeasance, we mean discharge from some or all of our obligations under the indenture. If we deposit with the trustee sufficient cash or government obligations to pay the principal, interest, any premium and any mandatory sinking fund or analogous payments due to the stated maturity or a redemption date of the debt securities of a particular series, then at our option:

- we will be discharged from our obligations for the debt securities of that series, the holders of the debt securities of the affected series will no longer be entitled to the benefits of the indenture, except for registration of transfer and exchange of debt securities and replacement of lost, stolen or mutilated debt securities, and those holders may look only to the deposited funds or obligations for payment, which is referred to as “defeasance”; or
- we will no longer be under any obligation to comply with certain covenants under the indenture as it relates to that series, and some events of default will no longer apply to us, which is referred to as “covenant defeasance.” (Sections 403 and 1401).

Unless the applicable prospectus supplement specifies otherwise and except as described below, the conditions to both defeasance and covenant defeasance are as follows:

- it must not result in a breach or violation of, or constitute a default or event of default under, the indenture, or result in a breach or violation of, or constitute a default under, any other of our other agreements or instruments;
-



certain bankruptcy-related defaults or events of default with respect to us must not have occurred and be occurring during the period commencing on the date of the deposit of the trust funds to defease the debt securities and ending on the 91st day after that date;

- we must deliver to the trustee an officer's certificate and an opinion of counsel addressing compliance with the conditions of the defeasance or covenant defeasance; and

- we must comply with any additional conditions to the defeasance or covenant defeasance that the indenture may impose on us. (Sections 403 and 1401).

In the event that government obligations deposited with the trustee for the defeasance of such debt securities decrease in value or default subsequent to their being deposited, we will have no further obligation, and the holders of the debt securities will have no additional recourse against us, for any decrease in value or default. If indicated in the prospectus supplement, in addition to obligations of the United States or an agency or instrumentality of the United States, government obligations may include obligations of the government or an agency or instrumentality of the government issuing the currency in which debt securities of such series are payable.

We may exercise our defeasance option for the debt securities even if we have already exercised our covenant defeasance option. If we exercise our defeasance option, payment of the debt securities may not be accelerated because of default or an event of default. If we exercise our covenant defeasance option,

36

---

TABLE OF CONTENTS

payment of the debt securities may not be accelerated because of default or an event of default with respect to the covenants to which the covenant defeasance is applicable. If, however, acceleration occurs, the realizable value at the acceleration date of the money and government obligations in the defeasance trust could be less than the principal and interest then due on the debt securities, because the required deposit in the defeasance trust is based on scheduled cash flow rather than market value, which will vary depending on interest rates and other factors.

Conversion and Exchange Rights

The debt securities of any series may be convertible into or exchangeable for other securities of our company or another issuer or property or cash on the terms and subject to the conditions set forth in the applicable prospectus supplement. (Section 301).

Governing Law

The indenture and the debt securities will be governed by, and construed under, the laws of the State of New York without regard to conflicts of laws principles thereof.

Ranking

The senior debt securities will be our senior and unsubordinated obligations, ranking equally and ratably with all our other existing and future senior and unsubordinated obligations. Unless the applicable prospectus supplement specifies otherwise, the senior debt securities will be effectively subordinated to all of our existing and future secured indebtedness.

Unless the applicable prospectus supplement specifies otherwise, the subordinated debt securities will be subordinated, in right of payment, to the prior payment in full of the senior indebtedness, including the senior debt securities, whether outstanding at the date of the subordinated indenture or thereafter incurred, assumed or guaranteed.

The term “senior indebtedness” means:

- the principal of and premium, if any, and unpaid interest on indebtedness for money borrowed;
- all indebtedness evidenced by notes, debentures, bonds or other securities;
- purchase money and similar obligations;
- obligations under capital leases determined in accordance with generally accepted accounting principles as in effect in the United States on July 1, 2018 (without giving effect to any phase-in of the effectiveness of any change in generally accepted accounting principles that has been adopted as of such date);
- guarantees, assumptions or purchase commitments relating to, or other transactions as a result of which we are responsible for the payment of, indebtedness of others;
- renewals, extensions and refunding of any senior indebtedness;
- interest or obligations in respect of any senior indebtedness accruing after the commencement of any insolvency or bankruptcy proceedings; and
- obligations associated with derivative products, including interest rate and currency exchange contracts, foreign exchange contracts, commodity contracts, and similar arrangements unless, in each case, the instrument by which we incurred, assumed or guaranteed the indebtedness or obligations described in the foregoing clauses expressly provides

that the indebtedness or obligation is not senior in right of payment to the subordinated debt securities.

Upon any distribution of our assets in connection with any dissolution, winding up, liquidation or reorganization of our company, whether in a bankruptcy, insolvency, reorganization or receivership proceeding or upon an assignment for the benefit of creditors generally or any other marshalling of our assets and liabilities or otherwise, except a distribution in connection with a merger or consolidation or a conveyance or transfer of all or substantially all of our properties in accordance with the subordinated indenture, the holders of all senior indebtedness will first be entitled to receive payment of the full amount

37

---

TABLE OF CONTENTS

due on the senior indebtedness, or provision will be made for that payment in money or money's worth, before the holders of any of the subordinated debt securities are entitled to receive any payment in respect of the subordinated debt securities. (subordinated indenture, Section 1501).

In the event that a payment default occurs and is continuing with respect to the senior indebtedness, the holders of all senior indebtedness will first be entitled to receive payment of the full amount due on the senior indebtedness, or provision will be made for that payment in money or money's worth, before the holders of any of the subordinated debt securities are entitled to receive any payment in respect of the subordinated debt securities. In the event that the principal of the subordinated debt securities of any series is declared due and payable pursuant to the subordinated indenture and that declaration is not rescinded and annulled, the holders of all senior indebtedness outstanding at the time of the declaration will first be entitled to receive payment of the full amount due on the senior indebtedness, or provision will be made for that payment in money or money's worth, before the holders of any of the subordinated debt securities are entitled to receive any payment in respect of the subordinated debt securities. (subordinated indenture, Section 1501)

This subordination will not prevent the occurrence of any event of default with respect to the subordinated debt securities. (subordinated indenture, Section 1503). There is no limitation on the issuance of additional senior indebtedness in the subordinated indenture.

Regarding the Trustee

We may from time to time maintain lines of credit, and have other customary banking relationships, with the trustee or its affiliates under the senior indenture or the trustee or its affiliates under the subordinated indenture.

The indenture and provisions of the Trust Indenture Act that are incorporated by reference therein contain limitations on the rights of the trustee, should it become one of our creditors, to obtain payment of claims in certain cases or to realize on certain property received by it in respect of any such claim as security or otherwise. The trustee is permitted to engage in other transactions with us or any of our affiliates; provided, however, that if it acquires any conflicting interest (as defined under the Trust Indenture Act), it must eliminate such conflict or resign.

TABLE OF CONTENTS

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, debt securities or other securities registered pursuant to this registration statement and described in this prospectus. We may issue warrants independently or together with other securities that may be attached to or separate from the warrants. We will issue each series of warrants under a separate warrant agreement that will be entered into between us and a bank or trust company, as warrant agent, and will be described in the prospectus supplement relating to the particular issue of warrants. The warrant agent will act solely as our agent in connection with the warrants of such series and will not assume any obligation or relationship of agency for or with holders or beneficial owners of warrants. The following describes certain general terms and provisions of debt warrants or common stock warrants we may offer. We will set forth further terms of the debt warrants, common stock warrants or warrants to purchase other securities and the applicable warrant agreement in the applicable prospectus supplement.

Debt Warrants

If we offer warrants for the purchase of debt securities, a prospectus supplement relating to the warrants being offered will describe the terms of the warrants, the warrant agreement and the warrant certificates, including the following:

- the title of the debt warrants;
- the offering price for the debt warrants, if any;
- the aggregate number of the debt warrants;
- the designation and terms of the debt securities purchasable upon exercise of such debt warrants;
- if applicable, the designation and terms of the securities with which such debt warrants are issued and the number of such debt warrants issued with each security;
- if applicable, the date from and after which such debt warrants and any securities issued therewith will be separately transferable;
- the principal amount of debt securities purchasable upon exercise of a debt warrant and the price at which such principal amount of debt securities may be purchased upon exercise;
- the date on which the right to exercise such debt warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such debt warrants which may be exercised at any one time;
- whether the debt warrants represented by the debt warrant certificates or debt securities that may be issued upon exercise of the debt warrants will be issued in registered form;
-

information with respect to book-entry procedures, if any;

- the currency, currencies or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of certain United States federal income tax considerations;
- the identity of the warrant agent for the warrants;
- the anti-dilution provisions of such debt warrants, if any;
- the redemption or call provisions, if any, applicable to such debt warrant; and
- any additional terms of the debt warrants, including terms, procedures and limitations relating to the exchange and exercise of such debt warrants.

TABLE OF CONTENTS

Common Stock Warrants

If we offer warrants for the purchase of common stock, a prospectus supplement relating to the warrants being offered will describe the terms of any common stock warrants, including the following:

- the title of such warrants;
- the offering price of such warrants, if any;
- the aggregate number of such warrants;
- the designation and terms of the common stock that is issued and purchasable upon exercise of such warrants;
- if applicable, the designation and terms of the securities with which such warrants are issued and the number of such warrants issued with each such security;
- if applicable, the date from and after which such warrants and any securities issued therewith will be separately transferable;
- the number of shares of common stock that is issued and purchasable upon exercise of the warrants and the price which such shares may be purchased upon exercise;
- the date on which the right to exercise such warrants shall commence and the date on which such right shall expire;
- if applicable, the minimum or maximum amount of such warrants which may be exercised at any one time;
- the currency, currencies or currency units in which the offering price, if any, and the exercise price are payable;
- if applicable, a discussion of certain United States federal income tax considerations;
- the identity of the warrant agent for the warrants;
- the anti-dilution provisions of the warrants, if any;
- redemption or call provisions, if any, applicable to the warrants; and
- any other terms of the warrants.





## TABLE OF CONTENTS

### DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplement, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below. However, no prospectus supplement will fundamentally change the terms that are set forth in this prospectus or offer a security that is not registered and described in this prospectus at the time of its effectiveness.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from a current report on Form 8-K that we file with the SEC, the form of unit agreement that describes the terms of the series of units we are offering, and any supplemental agreements, before the issuance of the related series of units. The following summaries of material terms and provisions of the units are subject to, and qualified in their entirety by reference to, all the provisions of the unit agreement and any supplemental agreements applicable to a particular series of units. We urge you to read the applicable prospectus supplements related to the particular series of units that we sell under this prospectus, as well as the complete unit agreement and any supplemental agreements that contain the terms of the units.

#### General

We may issue units comprised of one or more shares of common stock or preferred stock, debt and warrants in any combination. Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. We will describe in the applicable prospectus supplement the terms of the series of units, including:

- The designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;

- Any provisions of the governing unit agreement that differ from those described below; and

- Any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Debt Securities,” “Description of Common Stock,” “Description of Preferred Stock,” and “Description of Warrants” will apply to each unit and to any debt, shares of capital stock or warrant included in each unit, respectively.

#### Issuance in Series

We may issue units in such amounts and in numerous distinct series as we determine.

#### Enforceability of Rights by Holders of Units

Each unit agent, if applicable, will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

We, any unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary.



## TABLE OF CONTENTS

### LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depository, or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

#### Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial institution that holds them as depository on behalf of other financial institutions that participate in the depository’s book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers. Upon the issuance of a global security, the depository will credit, on its book-entry registration and transfer system, the participants’ accounts with the respective principal amounts of the book-entry securities represented by the global security beneficially owned by such participants. The accounts to be credited will be designated by any dealers, underwriters, or agents participating in the distribution of the book-entry securities. Ownership of book-entry securities will be shown on, and the transfer of the ownership interests will be effected only through, records maintained by the depository for the related global security (with respect to interests of participants) and on the records of participants (with respect to interests of persons holding through participants). The laws of some states may require that certain purchasers of securities take physical delivery of such securities in definitive form. These laws may impair the ability to own, transfer, or pledge beneficial interests in book-entry securities.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depository or its participants. Consequently, for securities issued in global form, we will recognize only the depository as the holder of the securities, and we will make all payments on the securities to the depository. The depository passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depository and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker, or other financial institution that participates in the depository’s book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

See also the section entitled “Description of Debt Securities — Book-Entry Procedures” for additional information.

#### Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in “street name.” Securities held by an investor in street name would be registered in the name of a bank, broker, or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he, she, or it maintains at that institution. For securities held in street name, we will recognize only the intermediary banks, brokers, and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

## TABLE OF CONTENTS

### Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name, or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Whether and how the holders contact the indirect holders is up to the holders.

### Special Considerations For Indirect Holders

If you hold securities through a bank, broker, or other financial institution, either in book-entry form or in street name, you should check with your own institution to determine the following:

- how it handles securities payments and notices;
- whether it imposes fees or charges;
- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

### Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms. Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, DTC will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee, or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank, or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated.

If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

We may at any time and in our sole discretion determine not to have any of the book-entry securities of any series represented by one or more global securities and, in that event, we will issue certificated securities in exchange for the global securities of that series.

43

---

## TABLE OF CONTENTS

### Special Considerations For Global Securities

The rights of an indirect holder relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security. If securities are issued only in the form of a global security, an investor should be aware of the following:

- an investor cannot cause the securities to be registered in his, her, or its name, and cannot obtain non-global certificates for his, her, or its interest in the securities, except in the special situations we describe below;
- an investor will be an indirect holder and must look to his, her, or its own bank or broker for payments on the securities and protection of his, her, or its legal rights relating to the securities, as we describe above;
- an investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;
- an investor may not be able to pledge his, her, or its interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- the depositary's policies, which may change from time to time, will govern payments, transfers, exchanges, and other matters relating to an investor's interest in a global security;
- we and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security, nor do we or any applicable trustee supervise the depositary in any way;
- the depositary may, and we understand that DTC will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices, and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

### Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

Unless we provide otherwise in the applicable prospectus supplement, the global security will terminate when the following special situations occur:

- if the depositary notifies us that it is no longer willing, able or eligible to discharge properly its responsibilities as depositary and we are unable to locate a qualified successor;
- if we decide in our sole discretion to terminate that global security.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular types and series of securities covered by the applicable prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

44

---

TABLE OF CONTENTS

CERTAIN PROVISIONS OF DELAWARE LAW, OUR CHARTER, AND BY-LAWS

Anti-Takeover Provisions

Provisions of our Charter and By-Laws

A number of provisions of our Charter and By-laws concern matters of corporate governance and the rights of stockholders. Some of these provisions, including, but not limited to, the inability of stockholders to take action by unanimous written consent, certain advance notice requirements for stockholder proposals and director nominations, supermajority voting provisions with respect to any amendment of voting rights provisions, the filling of vacancies on the board of directors by the affirmative vote of a majority of the remaining directors, and the ability of the board of directors to issue shares of preferred stock and to set the voting rights, preferences and other terms thereof, without further stockholder action, may be deemed to have anti-takeover effect and may discourage takeover attempts not first approved by the board of directors, including takeovers which stockholders may deem to be in their best interests. If takeover attempts are discouraged, temporary fluctuations in the market price of shares of our common stock, which may result from actual or rumored takeover attempts, may be inhibited. These provisions, together with the ability of the board of directors to issue preferred stock without further stockholder action, could also delay or frustrate the removal of incumbent directors or the assumption of control by stockholders, even if the removal or assumption would be beneficial to our stockholders. These provisions could also discourage or inhibit a merger, tender offer or proxy contest, even if favorable to the interests of stockholders, and could depress the market price of our common stock. The board of directors believes these provisions are appropriate to protect our interests and the interests of our stockholders. The board of directors has no present plans to adopt any further measures or devices which may be deemed to have an “anti-takeover effect.”

Delaware Anti-Takeover Provisions

We are subject to Section 203 of the DGCL, which prohibits a publicly-held Delaware corporation from engaging in a “business combination,” except under certain circumstances, with an “interested stockholder” for a period of three years following the date such person became an “interested stockholder” unless:

- before such person became an interested stockholder, the board of directors of the corporation approved either the business combination or the transaction that resulted in the interested stockholder becoming an interested stockholder;
- upon the consummation of the transaction that resulted in the interested stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding shares held by directors who are also officers of the corporation and shares held by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- at or following the time such person became an interested stockholder, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders (and not by written consent) by the affirmative vote of the holders of at least 66<sup>2</sup>/<sub>3</sub>% of the outstanding voting stock of the corporation which is not owned by the interested stockholder.

The term “interested stockholder” generally is defined as a person who, together with affiliates and associates, owns, or, within the three years prior to the determination of interested stockholder status, owned, 15% or more of a corporation’s outstanding voting stock. The term “business combination” includes mergers, asset or stock sales and other similar transactions resulting in a financial benefit to an interested stockholder. Section 203 makes it more difficult for an “interested stockholder” to effect various business combinations with a corporation for a three-year period. The existence of this provision would be expected to have an anti-takeover effect with respect to transactions not approved in advance by the board



TABLE OF CONTENTS

of directors, including discouraging attempts that might result in a premium over the market price for the shares of our common stock held by stockholders. A Delaware corporation may “opt out” of Section 203 with an express provision in its original Charter or any amendment thereto. Our Charter does not contain any such exclusion.

Exclusive Forum

The By-laws provide that unless we consent in writing to an alternative forum, a state court located within the State of Delaware (or, if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware) will be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of us; (ii) any action asserting a claim of breach of a fiduciary duty owed by any of our directors or officers or other employees or our stockholders; (iii) any action asserting a claim against us or any of our directors or officers or other employees arising pursuant to any provision of the DGCL or our Charter or the By-laws (as either may be amended from time to time), or (iv) any action asserting a claim against us or any of our directors or other officers or other employees governed by the internal affairs doctrine.

Limitations of Directors’ Liability

Our Charter provides that none of our directors will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except for liability:

- for any breach of the director’s duty of loyalty to us or our stockholders;
- for acts of omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- under Section 174 of the DGCL; or
- for any transaction from which the director derived an improper personal benefit.

The effect of these provisions is to eliminate our rights and the rights of our stockholders (through stockholders’ derivatives suits on behalf of us) to recover monetary damages against a director for breach of fiduciary duty as a director (including breaches resulting from grossly negligent behavior), except in the situations described above. These provisions do not limit the liability of directors under federal securities laws and do not affect the availability of equitable remedies such as an injunction or rescission based upon a director’s breach of his duty of care.

Disclosure of Commission Position on Indemnification for Securities Act Liabilities

Our Charter provides that none of our directors will be personally liable to us or our stockholders for monetary damages for breach of fiduciary duty as a director, except to the extent such exemption from liability or limitation thereof is not permitted under the DGCL. Our By-laws provide for indemnification of our officers and directors to the fullest extent permitted by applicable law. Insofar as indemnification for liabilities under the Securities Act may be permitted to directors, officers or controlling persons of the Company pursuant to the Charter, By-laws or applicable law, or otherwise, we have been informed that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

TABLE OF CONTENTS

PLAN OF DISTRIBUTION

We may sell the securities under this prospectus in one or more of the following ways from time to time:

- through agents;
- to or through underwriters;
- through dealers;
- directly to one or more purchasers; or
- through a combination of these methods of sale.

The securities that we distribute by any of these methods may be sold, in one or more transactions, at:

- a fixed price or prices, which may be changed;
- market prices prevailing at the time of sale;
- prices related to prevailing market prices;
- negotiated prices; or
- a combination of these pricing methods.

We will set forth in a prospectus supplement the terms of the offering of our securities, including:

- the name or names of any agents, underwriters, or dealers;
- the purchase price of our securities being offered and the proceeds from the sale;
- any over-allotment options under which underwriters may purchase additional securities from us;
- any agency fees or underwriting discounts and commissions and other items constituting agents' or underwriters' compensation;
- the public offering price;

- any discounts or concessions allowed or reallocated or paid to dealers; and
- any securities exchanges on which such securities may be listed.

Unless otherwise indicated in the applicable prospectus supplement, if we use underwriters for a sale of securities, the underwriters will acquire the securities for their own account. The underwriters may resell the securities in one or more transactions, including negotiated transactions, at a fixed public offering price, or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the securities will be subject to the conditions set forth in the applicable underwriting agreement. Unless otherwise indicated in a prospectus supplement, the underwriters will be obligated to purchase all the securities offered if they purchase any of the securities offered. We may change from time to time any initial public offering price and any discounts or concessions the underwriters allow or reallocate or pay to dealers. We may use underwriters with whom we have a material relationship. We will describe in the prospectus supplement naming the underwriter the nature of any such relationship. We may designate agents who agree to use their reasonable efforts to solicit purchases for the period of their appointment or to sell securities on a continuing basis. We may also sell securities directly to one or more purchasers without using underwriters or agents.

Underwriters, dealers, or agents may receive compensation in the form of discounts, concessions, or commissions from us or from purchasers of the securities as their agents in connection with the sale of the securities. These underwriters, dealers, or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions, or profits on resale received by underwriters, dealers, or agents may be treated as underwriting discounts and commissions. Each prospectus supplement will identify any underwriter, dealer, or agent and describe any compensation received by them from us. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

## TABLE OF CONTENTS

In compliance with the guidelines of the Financial Industry Regulatory Authority, or FINRA, the aggregate maximum discount, commission or agency fees or other items constituting underwriting compensation to be received by any FINRA member or independent broker-dealer will not exceed 8% of the proceeds from any offering pursuant to this prospectus and any applicable prospectus supplement.

In connection with any offering, the underwriters may engage in stabilizing transactions, over-allotment transactions, syndicate covering transactions, and penalty bids in accordance with Regulation M under the Exchange Act.

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.

- Over-allotment involves sales by the underwriters of shares of our common stock in excess of the number of shares the underwriters are obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares of our common stock over-allotted by the underwriters is not greater than the number of shares that they may purchase in the over-allotment option. In a naked short position, the number of shares of our common stock involved is greater than the number of shares in the over-allotment option. The underwriters may close out any covered short position by either exercising their over-allotment option or purchasing shares of our common stock in the open market.

- Syndicate covering transactions involve purchases of our common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriters will consider, among other things, the price of shares of our common stock available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option so that if there is a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriters are concerned that there could be downward pressure on the price of the shares of our common stock in the open market after the pricing of any offering that could adversely affect investors who purchase in that offering.

- Penalty bids permit the representatives of the underwriters to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, over-allotments, syndicate covering transactions, and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the Nasdaq Global Market or otherwise and, if commenced, may be discontinued at any time.

Underwriters, dealers, and agents may be entitled under agreements entered into with us to indemnification against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments they may be required to make in respect of these liabilities. Underwriters, dealers, and agents and their affiliates may be customers of, may engage in transactions with, or perform services for us in the ordinary course of business for which they receive compensation.

Offers to purchase offered securities may be solicited by agents designated by us from time to time. Any agent involved in the offer or sale of the offered securities in respect of which this prospectus is delivered will be named, and any commissions payable by us will be set forth in the applicable prospectus supplement. Unless otherwise set forth in the applicable prospectus supplement, any agent will be acting on a reasonable best efforts basis for the period of its appointment. Any agent may be deemed to be an underwriter, as that term is defined in the Securities Act, of the offered securities so offered and sold.

If offered securities are sold to the public by means of an underwritten offering, either through underwriting syndicates represented by managing underwriters or directly by the managing underwriters, we will execute an underwriting agreement with an underwriter or underwriters, and the names of the

48

---

## TABLE OF CONTENTS

specific managing underwriter or underwriters, as well as any other underwriters, will be set forth in the applicable prospectus supplement. In addition, the terms of the transaction, including commissions, discounts and any other compensation of the underwriters and dealers, if any, will be set forth in the applicable prospectus supplement, which prospectus supplement will be used by the underwriters to make resales of the offered securities. If underwriters are utilized in the sale of the offered securities, the offered securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including:

- negotiated transactions;
- at fixed public offering prices; and
- at varying prices determined by the underwriters at the time of sale.

In addition, unless otherwise indicated in the applicable prospectus supplement, the underwriting agreement will provide that the obligations of the underwriters are subject to specified conditions precedent and that the underwriters with respect to a sale of offered securities will be obligated to purchase all of the offered securities if any are purchased.

We may grant to the underwriters options to purchase additional offered securities to cover over-allotments, if any, at the public offering price with additional underwriting discounts or commissions, as may be set forth in the applicable prospectus supplement. If we grant any over-allotment option, the terms of the over-allotment option will be set forth in the applicable prospectus supplement.

If a dealer is utilized in the sales of offered securities, we will sell the offered securities to the dealer as principal. The dealer may then resell the offered securities to the public at varying prices to be determined by the dealer at the time of resale. Any dealer may be deemed to be an underwriter of the offered securities so offered and sold. The name of the dealer and the terms of the transaction will be set forth in the applicable prospectus supplement.

We may directly solicit offers to purchase offered securities and sell offered securities directly to institutional investors or others with respect to any resale of the offered securities. The terms of any of these sales will be described in the applicable prospectus supplement.

In order to comply with the securities laws of some states, if applicable, the shares of common stock offered by this prospectus must be sold in such jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the shares of common stock may not be sold unless they have been registered or qualified for sale in the applicable state or an exemption from the registration or qualification requirement is available and is complied with. To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

## LEGAL MATTERS

The validity of the securities offered hereby is being passed upon for us by Foley & Lardner LLP, Boston, Massachusetts.

## EXPERTS

The consolidated financial statements of FuelCell Energy, Inc. and subsidiaries as of October 31, 2017 and 2016, and for each of the years in the three-year period ended October 31, 2017, and management's assessment of the effectiveness of internal control over financial reporting as of October 31, 2017 have been incorporated by reference herein and in the registration statement in reliance upon the report of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

## TABLE OF CONTENTS

### WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any document we file with the SEC at the SEC's Public Reference Room in Washington, D.C. located at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. The SEC maintains an Internet site at <http://www.sec.gov> which contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. Our SEC filings are available to the public from the SEC's Internet site.

This prospectus is part of a registration statement that we have filed with the SEC relating to the securities to be offered. This prospectus does not contain all of the information we have included in the registration statement and the accompanying exhibits and schedules in accordance with the rules and regulations of the SEC, and we refer you to the omitted information. The statements this prospectus makes pertaining to the content of any contract, agreement or other document that is an exhibit to the registration statement necessarily are summaries of their material provisions and do not describe all provisions, exceptions and qualifications contained in those contracts, agreements or documents. You should read those contracts, agreements or documents for information that may be important to you. The registration statement, exhibits and schedules are available at the SEC's Public Reference Room or through its Internet site.

You should rely only on the information provided in this prospectus and the registration statement. We have not authorized anyone else to provide you with different information. Our securities are not being offered in any state where the offer is not permitted. You should assume that the information in this prospectus is accurate only as of the dates of those documents. Our business, financial condition, results of operations and prospects may have changed since those dates.

### INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference much of the information we file with the SEC, which means that we can disclose important information to you by referring you to those publicly available documents. The information that we incorporate by reference in this prospectus is considered to be part of this prospectus. Because we are incorporating by reference future filings with the SEC, this prospectus is continually updated and those future filings may modify or supersede some of the information included or incorporated in this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any document previously incorporated by reference have been modified or superseded. This prospectus incorporates by reference the documents listed below and any future filings we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (in each case, other than those documents or the portions of those documents not deemed to be filed) between the date of the initial registration statement and the effectiveness of the registration statement and following the effectiveness of the registration statement until the offering of the securities under the registration statement is terminated or completed:

- our Annual Report on Form 10-K for the fiscal year ended October 31, 2017 filed with the SEC on January 11, 2018, including the information specifically incorporated by reference into the Annual Report on Form 10-K from our definitive proxy statement for the 2018 Annual Meeting of Stockholders;
- our Quarterly Reports on Form 10-Q for the quarterly periods ended January 31, 2018 and April 30, 2018, filed with the SEC on March 8, 2018 and June 7, 2018, respectively;
- our Current Reports on Form 8-K filed with the SEC on November 1, 2017, December 15, 2017, April 2, 2018, April 6, 2018, June 13, 2018 and June 20, 2018; and
- the description of our common stock set forth in our registration statement on Form 8-A, filed with the SEC on June 6, 2000, including any amendments or reports filed for the purposes of updating this description.





TABLE OF CONTENTS

Notwithstanding the foregoing, information furnished under Items 2.02 and 7.01 of any Current Report on Form 8-K, including the related exhibits under Item 9.01, is not incorporated by reference in this prospectus.

You may request a copy of any or all of these documents, which will be provided to you at no cost, by writing or telephoning us using the following contact information:

FuelCell Energy, Inc.

Attention: Corporate Secretary

3 Great Pasture Road

Danbury, Connecticut 06813

Telephone: (203) 825-6000

You should rely only on the information contained in this prospectus, including information incorporated by reference as described above, any accompanying prospectus supplement or any “free writing prospectus” that we may authorize to be delivered to you. We have not authorized anyone to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should not assume that the information in this prospectus or any prospectus supplement is accurate as of any date other than the date on the front of those documents or that any document incorporated by reference is accurate as of any date other than its filing date. You should not consider this prospectus to be an offer or solicitation relating to the securities in any jurisdiction in which such an offer or solicitation relating to the securities is not authorized. Furthermore, you should not consider this prospectus to be an offer or solicitation relating to the securities if the person making the offer or solicitation is not qualified to do so, or if it is unlawful for you to receive such an offer or solicitation.

51

---

TABLE OF CONTENTS

30,680 Shares of Series D Convertible Preferred Stock

PROSPECTUS SUPPLEMENT

Oppenheimer & Co.  
August 27, 2018

---