PLUG POWER INC Form 424B5 December 19, 2016

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Filed Pursuant to Rule 424(b)(5) Registration Statement No. 333-21473

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities and we are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 19, 2016

Prospectus Supplement to Prospectus dated December 9, 2016

Shares of Series D Convertible Preferred Stock Warrants to Purchase up to Shares of Common Stock

We are offering shares of our Series D convertible preferred stock and warrants to purchase up to shares of our common stock in this offering. This prospectus supplement also covers the shares of common stock issuable from time to time upon exercise of these warrants, and the shares of common stock issuable upon conversion or redemption of the Series D convertible preferred stock. Each share of Series D convertible preferred stock has an initial stated value of \$1,000 per share and is being sold together with 5.5-year warrants to purchase one share of common stock at an initial exercise price of \$ per share. The warrants are exercisable from and after the six-month anniversary of the issuance date. The shares of Series D convertible preferred stock and warrants will be issued separately.

Our common stock is traded on the NASDAQ Capital Market under the symbol "PLUG." The last reported sale price of our common stock on the NASDAQ Capital Market on December 16, 2016 was \$1.32 per share. There is no established trading market for the Series D convertible preferred stock or any of the warrants and we do not expect a market to develop. We do not intend to apply for a listing of any of the Series D convertible preferred stock or the warrants on any national securities exchange.

Investing in our securities involves risks. See "Risk Factors" beginning on page S-13 of this prospectus supplement.

	Per Fix	æd
	Combina	ation Total
Public offering price(1)	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to Plug Power Inc.(2)	\$	\$

- (1)
 Initial gross proceeds. If the warrants to purchase common stock are exercised in full, we will receive additional gross proceeds of \$ per fixed combination, or \$ million in the aggregate.
- (2)

 If the warrants to purchase common stock are exercised in full, net proceeds will increase to \$ per fixed combination, or \$ million in the aggregate.

We expect that the entire amount of securities offered hereby as well as the entire amount of shares and warrants being sold in the Common Offering (as defined below) will be purchased by one or more institutional investors at the public offering price thereof.

The underwriter expects to deliver the shares of preferred stock and the warrants on or about December, 2016.

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

Oppenheimer & Co.

Prospectus Supplement dated December , 2016.

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ABOUT THIS PROSPECTUS SUPPLEMENT

This document is part of the registration statement that we filed with the Securities and Exchange Commission, or the SEC, using a "shelf" registration process and consists of two parts. The first part is this prospectus supplement, including the documents incorporated by reference, which describes the specific terms of this offering. The second part, the accompanying prospectus, including the documents incorporated by reference, gives more general information, some of which may not apply to this offering. Generally, when we refer only to the "prospectus," we are referring to both parts combined. This prospectus supplement may add to, update or change information in the accompanying prospectus and the documents incorporated by reference into this prospectus supplement or the accompanying prospectus.

If information in this prospectus supplement is inconsistent with the accompanying prospectus or with any document incorporated by reference that was filed with the SEC before the date of this prospectus supplement, you should rely on this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the securities being offered and other information you should know before investing in our securities. You should also read and consider information in the documents we have referred you to in the section of this prospectus supplement and the accompanying prospectus entitled "Incorporation by Reference," "Incorporation of Certain Information by Reference" and "Where You Can Find Additional Information" as well as any free writing prospectus provided in connection with this offering.

You should rely only on this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering and the information incorporated or deemed to be incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is in addition to or different from that contained or incorporated by reference in this prospectus supplement, the accompanying prospectus, and any free writing prospectus provided in connection with this offering. If anyone provides you with different or inconsistent information, you should not rely on it. We are not offering to sell these securities in any jurisdiction where the offer or sale is not permitted. You should not assume that the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus provided in connection with this offering is accurate as of any date other than as of the date of this prospectus supplement, the accompanying prospectus, or such free writing prospectus, as the case may be, or in the case of the documents incorporated by reference, the date of such documents regardless of the time of delivery of this prospectus supplement and the accompanying prospectus or any sale of our securities. Our business, financial condition, liquidity, results of operations and prospects may have changed since those dates.

All references in this prospectus supplement or the accompanying prospectus to "Plug Power," the "Company," "we," "us," or "our" mean Plug Power Inc. and our subsidiaries, unless we state otherwise or the context otherwise requires.

No action is being taken in any jurisdiction outside the United States to permit a public offering of the securities or possession or distribution of this prospectus supplement. the accompanying prospectus, or any free writing prospectus provided in connection with this offering in that jurisdiction. Persons who come into possession of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering in jurisdictions outside the United States are required to inform themselves about and to observe any restrictions as to this offering and the distribution of this prospectus supplement, the accompanying prospectus, or any free writing prospectus provided in connection with this offering applicable to that jurisdiction.

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WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act with respect to the Series D convertible preferred stock and the warrants offered by this prospectus supplement and the accompanying prospectus. This prospectus supplement, filed as part of the registration statement, does not contain all the information set forth in the registration statement and its exhibits and schedules, portions of which have been omitted as permitted by the rules and regulations of the SEC. For further information about us, we refer you to the registration statement and to its exhibits and schedules.

We file annual, quarterly and current reports and other information with the SEC. You may read and copy any materials we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information about the Public Reference Room. The SEC also maintains an internet website at www.sec.gov that contains periodic and current reports, proxy and information statements, and other information regarding registrants that are filed electronically with the SEC.

These documents are also available, free of charge, through the Investors section of our website, which is located at www.plugpower.com. Information contained on our website is not incorporated by reference into this prospectus supplement or the accompanying prospectus and you should not consider information on our website to be part of this prospectus supplement or the accompanying prospectus.

INCORPORATION BY REFERENCE

The SEC allows us to "incorporate by reference" information that we file with it. Incorporation by reference allows us to disclose important information to you by referring you to those other documents. The information incorporated by reference is an important part of this prospectus supplement and the accompanying prospectus, and information that we file later with the SEC will automatically update and supersede this information. We filed a registration statement on Form S-3 under the Securities Act of 1933, as amended, with the SEC with respect to the securities being offered pursuant to this prospectus supplement and the accompanying prospectus omit certain information contained in the registration statement, as permitted by the SEC. You should refer to the registration statement, including the exhibits thereto, for further information about us and the securities being offered pursuant to this prospectus supplement and the accompanying prospectus. Statements in this prospectus supplement and the accompanying prospectus regarding the provisions of certain documents filed with, or incorporated by reference in, the registration statement are not necessarily complete and each statement is qualified in all respects by that reference. Copies of all or any part of the registration statement, including the documents incorporated by reference or the exhibits, may be obtained upon payment of the prescribed rates at the offices of the SEC listed above in "Where You Can Find More Information." The documents we are incorporating by reference are:

our Annual Report on Form 10-K for the year ended December 31, 2015, filed on March 15, 2016;

the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2015 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 15, 2016;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, filed on May 10, 2016, August 9, 2016 and November 8, 2016, respectively;

our Current Reports on Form 8-K filed on March 4, 2016 (except for information contained therein which is furnished rather than filed), May 23, 2016, June 30, 2016 (except for information contained therein which is furnished rather than filed) and December 19, 2016; and

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the section entitled "Description of Registrant's Securities to be Registered" contained in our Registration Statement on Form 8-A, filed pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended , or the Exchange Act, on June 24, 2009, as amended by the Amendment No. 1 to Form 8-A filed by the Company with the SEC on May 6, 2011, the Amendment No. 2 to Form 8-A filed by the Company with the SEC on March 19, 2012, the Amendment No. 3 to Form 8-A filed by the Company with the SEC on February 13, 2013, the Amendment No. 5 to Form 8-A filed by the Company with the SEC on May 20, 2013 and the Amendment No. 6 to Form 8-A filed by the Company with the SEC on

In addition, all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed in such forms that are related to such items unless such Form 8-K expressly provides to the contrary) subsequently filed by us pursuant to Section 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, before the date our offering is terminated or completed are deemed to be incorporated by reference into, and to be a part of, this prospectus supplement and the accompanying prospectus.

Any statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or in a document incorporated or deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus will be deemed to be modified or superseded for purposes of this prospectus supplement and the accompanying prospectus to the extent that a statement contained in this prospectus supplement and the accompanying prospectus, or any free writing prospectus provided in connection with this offering or any other subsequently filed document that is deemed to be incorporated by reference into this prospectus supplement and the accompanying prospectus modifies or supersedes the statement. Any statement so modified or superseded will not be deemed, except as so modified or superseded, to constitute a part of this prospectus supplement and the accompanying prospectus.

We will furnish without charge to you, on written or oral request, a copy of any or all of the documents incorporated by reference, including exhibits to these documents. You should direct any requests for documents to Plug Power Inc., 968 Albany-Shaker Road, Latham, New York, 12110, Attention: General Counsel, or by telephone request to (518) 782-7700.

You should rely only on information contained in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering. We have not authorized anyone to provide you with information different from that contained in this prospectus supplement and the accompanying prospectus or any free writing prospectus provided in connection with this offering or incorporated by reference in this prospectus supplement and the accompanying prospectus. We are not making offers to sell the securities in any jurisdiction in which such an offer or solicitation is not authorized or to anyone to whom it is unlawful to make such offer or solicitation.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus contain and/or incorporate by reference statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as "anticipate," "believe," "could," "continue,' "estimate," "expect," "intend," "may," "should," "will," "would," "plan," "projected" or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to: the risk that we continue to incur losses and might never achieve or maintain profitability; the risk that we will need to raise additional capital to fund our operations and such capital may not be available to us; the risk of dilution to our stockholders and/or a decrease in our stock price should we need to raise additional capital; the risk that our lack of extensive experience in manufacturing and marketing products may impact our ability to manufacture and market products on a profitable and large-scale commercial basis; the risk that unit orders will not ship, be installed and/or be converted to revenue, in whole or in part; the risk that a loss of one or more of our major customers could result in a material adverse effect on our financial condition; the risk that a sale of a significant number of shares of stock could depress the market price of our common stock; the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability; the risk of potential losses related to any product liability claims or contract disputes; the risk of loss related to an inability to maintain an effective system of internal controls; our ability to attract and maintain key personnel; the risks related to the use of flammable fuels in our products; the risk that pending orders may not convert to purchase orders, in whole or in part; the cost and timing of developing, marketing and selling our products and our ability to raise the necessary capital to fund such costs; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers; the ability to achieve the forecasted gross margin on the sale of our products; the cost and availability of fuel and fueling infrastructures for our products; the risk of elimination of government subsidies and economic incentives for alternative energy products; market acceptance of our products and services, including GenDrive units; our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution and servicing and the supply of key product components; the cost and availability of components and parts for our products; our ability to develop commercially viable products; our ability to reduce product and manufacturing costs; our ability to successfully market, distribute and service our products and services internationally; our ability to improve system reliability for our products; competitive factors, such as price competition and competition from other traditional and alternative energy companies; our ability to protect our intellectual property; the cost of complying with current and future federal, state and international governmental regulations; the risks associated with potential future acquisitions; the volatility of our stock price; and other risks and uncertainties referenced under "Risk Factors" of this prospectus supplement and in the accompanying prospectus or any free writing prospectus provided in connection with this offering and any documents incorporated by reference herein or therein. Readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this prospectus supplement or the respective dates of documents incorporated herein or therein or any free writing prospectus provided in connection with this offering that include forward-looking statements.

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SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary may not contain all the information that you should consider before investing in our securities. You should read the entire prospectus supplement and the accompanying prospectus carefully, including "Risk Factors" contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and the financial statements incorporated by reference in this prospectus supplement and the accompanying prospectus, before making an investment decision. This prospectus supplement may add to, update or change information in the accompanying prospectus.

Overview

We are a leading provider of alternative energy technology focused on the design, development, commercialization and manufacture of hydrogen fuel cell systems used primarily for the material handling and stationary power market.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies, fuel cell/battery hybrid technologies, and associated hydrogen storage and dispensing infrastructure from which multiple products are available. A fuel cell is an electrochemical device that combines hydrogen and oxygen to produce electricity and heat without combustion. Hydrogen is derived from hydrocarbon fuels such as liquid petroleum gas, or LPG, natural gas, propane, methanol, ethanol, gasoline or biofuels. Plug Power develops complete hydrogen delivery, storage and refueling solutions for customer locations. Hydrogen can also be obtained from the electrolysis of water, or produced on-site at consumer locations through a process known as reformation. Currently the Company obtains hydrogen by purchasing it from fuel suppliers for resale to customers.

We provide and continue to develop fuel cell product solutions to replace lead-acid batteries in material handling vehicles and industrial trucks for some of the world's largest distribution and manufacturing businesses. We are focusing our efforts on material handling applications (forklifts) at multi-shift high volume manufacturing and high throughput distribution sites where our products and services provide a unique combination of productivity, flexibility and environmental benefits. Our current product line includes: GenDrive, our hydrogen fueled PEM fuel cell system providing power to material handling vehicles; GenFuel, our hydrogen fueling delivery system; GenCare, our ongoing maintenance program for both the GenDrive fuel cells and GenFuel products; GenSure (formerly ReliOn), our stationary fuel cell solution providing scalable, modular PEM fuel cell power to support the backup and grid-support power requirements of the telecommunications, transportation, and utility sectors; GenKey, our turn-key solution combining either GenDrive or GenSure with GenFuel and GenCare, offering complete simplicity to customers transitioning to fuel cell power; and GenFund, a collaboration with leasing organizations to provide cost efficient and seamless financing solutions to customers.

We provide our products worldwide through our direct product sales force, and by leveraging relationships with original equipment manufacturers, or OEMs, and their dealer networks.

We were organized in the State of Delaware on June 27, 1997.

Our principal executive offices are located at 968 Albany-Shaker Road, Latham, New York, 12110, and our telephone number is (518) 782-7700. Our corporate website address is www.plugpower.com. The information on our website is not part of this prospectus supplement or the accompanying prospectus.

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Recent Developments

Common Offering

Concurrently with this offering, we intend to conduct an underwritten offering, which we refer to as our Common Offering, of our common stock, together with warrants to purchase shares of our common stock, at a public offering price per fixed combination of \$\ \]. The warrants offered in our Common Offering are identical to the warrants offered by this offering, and will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary at an exercise price of \$\ \] per share of common stock. See the section of this prospectus supplement captioned "Description of Securities Warrants" for a summary of the terms of the warrants to purchase shares of our common stock. This offering is conditioned upon the completion of the Common Offering.

Hercules Loan Facility

We are party to a Loan and Security Agreement with Hercules Capital, Inc., or Hercules, which provides us a secured term loan facility with an outstanding principal balance of \$25.0 million as of December 12, 2016 (the "Loan Facility"). Under the Loan Facility, we are required to comply with certain financial covenants, including maintaining a minimum level of unrestricted cash subject to an account control agreement in favor of Hercules in an amount equal to (a) 75% of our outstanding obligations under the Loan Facility plus (b) an amount equal to our outstanding accounts payable that are more than 150 days past due (if any). We failed to maintain the minimum level of unrestricted cash required by this covenant and Hercules has provided us a limited waiver, under which Hercules has waived the covenant default and modified the minimum cash covenant. We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million.

Debt Financing

As part of our business strategy in the ordinary course of business, we regularly consider alternatives for financings, including debt and equity financings, on an opportunistic basis. For example, as of the date of this prospectus supplement, we are in negotiations with a debt lender for a senior secured loan in the aggregate amount of \$25.0 million, subject to the successful negotiation of definitive loan documents. There can be no assurance that such financing will be consummated.

Acquisitions

As part of our business strategy, we intend to consider acquisitions of companies, technologies and products that we believe could improve our ability to compete in our core markets or allow us to enter new markets. For example, as of the date of this prospectus supplement, we are in negotiations to acquire a company in Europe that develops technology to produce industrial gas supplies, which we believe, if successfully acquired and integrated into our operations, may advance our hydrogen fueling strategy. We expect that the purchase price of this acquisition will be approximately $\in 10.0$ million. There can be no assurance that we can successfully negotiate and enter into definitive agreements for this acquisition or, even if definitive agreements are executed, that we can successfully consummate this acquisition or integrate the acquired business into our operations.

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Waivers

In connection with this offering and the Common Offering, we obtained a waiver from Air Liquide Investissements d'Avenir et de Demonstration, or Air Liquide, the sole holder of our Series C convertible preferred stock, pursuant to which Air Liquide agreed to waive their rights to purchase our securities in this offering and the Common Offering, and agreed that the issuance of the securities in this offering and the Common Offering will not result in an anti-dilution adjustment attached to the shares of our Series C convertible preferred stock. In addition, we amended our shareholder rights agreement to exempt the issuance of the securities in this offering and the Common Offering to the investor therein from triggering our shareholder rights plan.

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THE OFFERING

Preferred Stock offered by us shares of Series D convertible preferred stock, par value \$0.01 per share. This prospectus supplement also relates to the offering of the shares of common stock issuable upon conversion or redemption (in accordance with the terms thereof) of the Series D convertible preferred stock. Description of Preferred Stock Each share of Series D convertible preferred stock has an initial stated value of \$1,000 per share, subject to adjustment as described herein. Shares of the Series D convertible preferred stock are convertible at a rate equal to the "Conversion Price," as further described herein. The Conversion Price initially will be \$ per share, subject to adjustment as described herein. See the section entitled "Description of Securities Series D Convertible Preferred Stock" beginning on page S-26 of this prospectus supplement for a description of the Series D convertible preferred stock. Common Stock Warrants offered by us We are offering warrants to purchase up to shares of common stock, which will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary at an exercise price of per share of common stock. This prospectus supplement also relates to the offering of the shares of common stock issuable upon exercise of the warrants. There is no established public trading market for the warrants, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any national securities exchange or other nationally recognized trading system. Series D convertible preferred stock to be outstanding after this offering shares Common stock to be outstanding after this offering shares

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No Market for Series D convertible preferred stock There is no established public trading market for the Series D convertible preferred stock or the warrants issued in this offering, and we do not intend to apply to list such Series D convertible preferred stock or warrants on any securities exchange or automated quotation system. Risk Factors See "Risk Factors" beginning on page S-13 of this prospectus supplement and other information included or incorporated into this prospectus supplement and the accompanying prospectus for a discussion of the factors you should carefully consider before deciding to invest in our securities. Use of proceeds We estimate that the net proceeds from this offering will be approximately \$ after deducting underwriting discounts and commissions and offering expenses. We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million. NASDAO Capital Market Symbol **PLUG** The number of shares of our common stock to be outstanding after the offering is based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby and excludes: 14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share; 1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016; 577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to the issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

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shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our in our Common Offering. See "Summary Recent Developments" for more information.

Except as otherwise indicated, all information in this prospectus supplement is as of September 30, 2016, and gives no effect to the Common Offering.

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SUMMARY SELECTED CONSOLIDATED FINANCIAL DATA

The following tables set forth selected financial data and other operating information of the Company. The selected statements of operations and balance sheet data as of, and for the years ended, December 31, 2015, 2014, 2013, 2012 and 2011 as set forth below are derived from our audited consolidated financial statements certain of which are incorporated by reference into the accompanying prospectus from our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 15, 2016, and incorporated by reference herein. The selected statements of operations data for the nine months ended September 30, 2016 and 2015, and the selected balance sheet data as of September 30, 2016 as set forth below are derived from our unaudited interim consolidated financial statements that are incorporated by reference into the accompanying prospectus from our Quarterly Report on Form 10-Q for the nine months ended September 30, 2016, filed with the SEC on November 8, 2016. The selected balance sheet data as of September 30, 2015 as set forth below are derived from our unaudited interim consolidated financial statements not incorporated by reference into the accompanying prospectus. The unaudited consolidated financial statements have been prepared on a basis consistent with our audited consolidated financial statements incorporated by reference into this prospectus supplement and the accompanying prospectus and, in the opinion of management, reflect all adjustments, consisting only of normal recurring adjustments, necessary to fairly state our financial position as of and our results of operations for the nine months ended September 30, 2016 and 2015. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim period results are not necessarily indicative of results to be expected for a full year or any other interim period. The information is only a summary and you should read it in conjunction with our audited consolidated financial statements, including the related notes, and other financial information and "Management's Discussion and Analysis of Financial Condition and Results of Operations" incorporated by reference into this prospectus supplement and the accompanying prospectus from our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, and our Quarterly Report on Form 10-Q for the nine months ended September 30, 2016.

	Nine Months Ended September 30,					Years Ended December 31,								
	2016		2015		2015	2014		2013		2012		2011		
Statements Of Operations:						(in tho	usa	nds, excep	t sha	are and pe	r sh	are data)		
Revenue:														
Sales of fuel cell systems and related														
infrastructure	\$ 19,99	2 \$	48,530	\$	78,002	\$ 48,306	\$	18,446	\$	20,792	\$	19,592		
Services performed on fuel cell systems			ĺ		•			,				Ź		
and related infrastructure	15,39	6	9,083		14,012	9,909		6,659		3,615		3,631		
Power Purchase Agreements	9,62	6	3,600		5,718	2,137								
Fuel delivered to customers	7,55	7	3,331		5,075	1,959								
Other	77	9	313		481	1,919		1,496		1,701		4,403		
Total revenue Cost of revenue:	53,35	0	64,857		103,288	64,230		26,601		26,108		27,626		
Sales of fuel cell systems and related infrastructure	16,18	2	42,103		67,703	43,378		20,414		25,354		22,626		
Services performed on fuel cell systems and related infrastructure	16,19	0	15,648		22,937	19,256		14,929		12,304		8,044		
Provision for loss contracts related to service	(1,07				10,050									
Power Purchase Agreements	10,96		3,101		5,253	1,052								
Fuel delivered to customers	9,29	8	4,107		6,695	2,204								
Other	85	5	371		540	3,202		2,506		2,805		6,232		
Total cost of revenue	52,41	5	65,330		113,178	69,092		37,849		40,463		36,902		

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		Nine Months Septembe			Years Ended December 31,						
		2016	2015	2015	2014	2013	2012 ept share and per	2011			
Gross margin (loss)		935	(473)	(9,890)	(4,862)	(11,248)	(14,355)	(9,276)			
Research and development		733	(473)	(5,650)	(4,002)	(11,240)	(14,333)	(2,270)			
expense		15,032	10,457	14,948	6,469	3,121	5,434	5,656			
Selling, general and											
administrative expenses		25,485	23,952	34,164	26,601	14,596	16,883	16,868			
Gain on sale of assets								(673)			
Other (income) expense, net		(914)	(4,392)	(3,312)	50,881	34,115	(4,810)	(3,673)			
Loss before income taxes	\$	(38,668) \$	(30,490) \$	(55,690) \$	(88,813) \$	(63,080) \$	(31,862) \$	(27,454)			
Income tax benefit	φ	392	(50,490) \$	(33,090) \$	325	410	(31,002) \$	(27,434)			
income tax benefit		392			323	410					
Net loss attributable to the											
Company	\$	(38,276) \$	(30,490) \$	(55,690) \$	(88,488) \$	(62,670) \$	(31,862) \$	(27,454)			
Preferred stock dividends		, , , , , ,	, , , +	, ,, +	, , +	, ,,,,,,,	, , , +	(, , , , , ,			
declared		(78)	(78)	(105)	(156)	(121)					
Net loss attributable to											
common shareholders	\$	(38,354) \$	(30,568) \$	(55,795) \$	(88,644) \$	(62,791) \$	(31,862) \$	(27,454)			
Loss per share, basic and	Φ.	(0.24)	(0.4 5) A	(0.22) A	(0.50.4	(0.00) #	(0.00) A	4.46			
diluted	\$	(0.21) \$	(0.17) \$	(0.32) \$	(0.56) \$	(0.82) \$	(0.93) \$	(1.46)			
Weighted array											
	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
common shares outstanding Balance Sheet Data:	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
Balance Sheet Data: (at end of the period)	1	180,261,449	174,724,746	176,067,231	159,228,815	76,436,408	34,376,427	18,778,066			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash											
Balance Sheet Data: (at end of the period) Unrestricted cash and cash	\$	42,486 \$	174,724,746 85,009 \$	176,067,231 63,961 \$	159,228,815			18,778,066			
Weighted average number of common shares outstanding Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets											
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets		42,486 \$	85,009 \$	63,961 \$	146,205 \$	5,027 \$	9,380 \$	13,857			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of		42,486 \$	85,009 \$	63,961 \$	146,205 \$	5,027 \$	9,380 \$	13,857			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456	146,205 \$ 204,151	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460	13,857 55,656			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456	146,205 \$ 204,151	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities Finance obligations		42,486 \$ 223,985	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities Finance obligations Long-term debt		42,486 \$ 223,985 56,436 35,258	85,009 \$ 204,618	63,961 \$ 209,456 42,706	146,205 \$ 204,151 25,707	5,027 \$ 35,356	9,380 \$ 39,460 3,381	13,857 55,656 5,405			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities Finance obligations Long-term debt Other noncurrent liabilities		42,486 \$ 223,985 56,436 35,258 23,541	85,009 \$ 204,618 33,580 9,650 11,588	63,961 \$ 209,456 42,706 14,809	146,205 \$ 204,151 25,707 2,426	5,027 \$ 35,356 10,874 2,492	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of		42,486 \$ 223,985 56,436 35,258 23,541 13,979	85,009 \$ 204,618 33,580 9,650	63,961 \$ 209,456 42,706 14,809	146,205 \$ 204,151 25,707 2,426	5,027 \$ 35,356 10,874 2,492 37,491 2,371	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			
Balance Sheet Data: (at end of the period) Unrestricted cash and cash equivalents Total assets Borrowings under line of credit Current liabilities Finance obligations Long-term debt Other noncurrent liabilities Redeemable preferred stock		42,486 \$ 223,985 56,436 35,258 23,541 13,979 1,153	85,009 \$ 204,618 33,580 9,650 11,588 1,153	63,961 \$ 209,456 42,706 14,809 26,052 1,153	146,205 \$ 204,151 25,707 2,426 16,582 1,153	5,027 \$ 35,356 10,874 2,492 37,491	9,380 \$ 39,460 3,381 17,039	13,857 55,656 5,405 17,043			

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RISK FACTORS

Investing in our securities involves a high degree of risk. In addition to the other information contained in this prospectus supplement to the accompanying prospectus and in the documents we incorporate by reference, you should carefully consider the risks discussed below and under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 15, 2016 before making a decision about investing in our securities. The risks and uncertainties discussed below and in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015 are not the only ones facing us. Additional risks and uncertainties not presently known to us, or that we currently see as immaterial, may also harm our business. If any of these risks occur, our business, financial condition and operating results could be harmed, the trading price of our common stock could decline and you could lose part or all of your investment.

Risks Related to Our Business Operations

If we are unable to fund our operations with positive cash flows and cannot obtain external financing, we may not be able to sustain future operations, and we may be required to delay, reduce and/or cease our operations and /or seek bankruptcy protection.

We have experienced recurring operating losses, and as of December 31, 2015 and September 30, 2016, we had an accumulated deficit of approximately \$993.9 million and \$1.0 billion, respectively.

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

We cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. We believe that it could be difficult to raise additional funds and there can be no assurance as to the availability of additional financing or the terms upon which additional financing may be available. Additionally, even if we raise sufficient capital through additional equity or debt financings, strategic alternatives or otherwise, there can be no assurance that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly

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issued securities, including those issued in our Common Offering, may have rights, preferences or privileges senior to those of existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

The reduction or elimination of government subsidies and economic incentives for alternative energy technologies, particularly the investment tax credit, could reduce demand for our products, lead to a reduction in our revenues, and adversely impact our operating results.

We believe that the near-term growth of alternative energy technologies is affected by the availability and size of government and economic incentives. Many of these government incentives expire, phase out over time, exhaust the allocated funding, or require renewal by the applicable authority. In addition, these incentive programs could be reduced or discontinued for other reasons. For example, the investment tax credit is currently scheduled to expire on December 31, 2016. The investment tax credit provides purchasers or lessees of our products with a 30% tax credit, and we believe it is a significant incentive to our customers. The reduction, elimination, or expiration of the investment tax credit or other government subsidies and economic incentives may result in the diminished economic competitiveness of our products to our customers and could materially and adversely affect the growth of alternative energy technologies, including our products, as well as our future operating results.

Our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers may affect our sales, profitability and liquidity.

Customers representing most of our revenue lease, rather than purchase, our products. These lease arrangements require us to finance the purchase of such products, either ourselves or through third-party financing sources. For example, approximately \$52.9 million of our cash is currently restricted to support such leasing arrangements, which prevents us from using such cash for other purposes. To date, we have been successful in obtaining or providing the necessary financing arrangements. There is no certainty, however, that we will be able to continue to obtain or provide adequate financing for these arrangements on acceptable terms, or at all, in the future. Failure to obtain or provide such financing may result in the loss of material customers and product sales, which could have a material adverse effect on our business, financial condition and results of operations. Further, if we are required to continue to pledge or restrict substantial amounts of our cash to support these financing arrangements, such cash will not be available to us for other purposes, which may have a material adverse effect on our liquidity and financial position.

Potential future acquisitions could be difficult to integrate, divert the attention of key personnel, disrupt our business and impair our financial results.

As part of our business strategy, we intend to consider acquisitions of companies, technologies and products that we believe could improve our ability to compete in our core markets or allow us to enter new markets. Acquisitions involve numerous risks, any of which could harm our business, including, difficulty in integrating the technologies, products, operations and existing contracts of a target company and realizing the anticipated benefits of the combined businesses; difficulty in supporting and transitioning customers, if any, of the target company; inability to achieve anticipated benefits or

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maintain or increase the revenue and profit of the acquired business; potential disruption of our ongoing business and distraction of management; the price we pay or other resources that we devote may exceed the value we realize; or forgoing the value we could have realized if we had allocated the purchase price or other resources to another opportunity and inability to generate sufficient revenue to offset acquisition costs. In addition, if we finance acquisitions by issuing equity securities, our existing stockholders may be diluted. As a result, if we fail to properly evaluate acquisitions or investments, we may not achieve the anticipated benefits of any such acquisitions, and we may incur costs in excess of what we anticipate.

As of the date of this prospectus supplement, we are in ongoing negotiations to acquire a company in Europe that develops technology to produce industrial gas supplies, which we believe, if successfully acquired and integrated into our operations, may advance our hydrogen fueling strategy. We expect that the purchase price for this acquisition will be approximately €10.0 million.

There can be no assurance that we will enter into definitive agreements, or consummate this transaction. Moreover, even if we consummate this acquisition, its success will depend, in part, on our ability to successfully integrate the target's business and operations and fully realize the anticipated benefits from combining our business with the target's business. However, to realize these anticipated benefits, we must successfully combine these businesses. If we are unable to achieve these objectives, the anticipated benefits of this acquisition may not be realized fully or at all or may take longer to realize than expected. Any failure to timely realize these anticipated benefits could have a material adverse effect on our revenues, expenses and operating results. Furthermore, it is possible that the integration process could result in the loss of key employees, loss of key clients, decreases in revenues and increases in operating costs, as well as the disruption of our business, any or all of which could limit our ability to achieve the anticipated benefits of the acquisition and have a material adverse effect on our revenues and operating results. Integration efforts between the two companies will also divert management attention and resources, which could also adversely affect our operating results.

Risks Related to the Series D Convertible Preferred Stock

We may not have the cash necessary to redeem the Series D convertible preferred stock.

We have the obligation to make monthly redemption payments on the Series D convertible preferred stock commencing January 31, 2017, which mandatory redemption payments may each be made at our option in cash or in 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 Capital Market or another permitted exchange (as described in more detail below), and our stock maintaining certain minimum average trading volumes during the applicable measurement period. If we cannot satisfy the equity conditions, we will not be able to make our monthly mandatory redemption payments in stock, and we would be forced to make such monthly 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.

Further, any failure to pay any amounts due to the holders of the Series D convertible preferred stock, 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 convertible preferred stock, and breaches of certain representations, warranties and covenants that are not timely cured, where a cure period is permitted, would permit the holders of our Series D convertible preferred stock to compel our redemption of such Series D convertible preferred stock in cash at a price per share equal to the greater of (i) 125% of the stated value of the Series D convertible preferred stock being redeemed and accrued dividends and (ii) the market value of the number of shares into which the Series D

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convertible preferred stock, plus accrued dividends, could be converted by the holder at the time a notice of redemption is delivered by the holder, 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. The OTC Quotation Board is one of the alternative markets permitted under the equity conditions, meaning that if we are listed on The NASDAQ Capital Market or are suspended from trading or listing for five consecutive days but fall below the minimum listing standards of that market, we will still satisfy the equity conditions if we satisfy the minimum listing standards of the OTC Quotation Board at that time. However, if we are actually delisted from The NASDAQ Capital Market, without obtaining a listing on another national securities exchange, it would constitute a "triggering event" under the certificate of designations (and consequently, 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 D convertible preferred stock 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 and financial condition and may impair our ability to continue in business as a going concern.

The Series D Shares are a senior obligations of ours, and rank prior to our common stock with respect to dividends, distributions and payments upon liquidation.

The rights of the holders of the Series D convertible preferred stock rank senior to the obligations to our common stock holders. Upon our liquidation, the holders of Series D convertible preferred stock are entitled to receive an amount per share of Series D convertible preferred stock equal to the greater of (A) 125% of the conversion amount thereof on the date of such payment and (B) the amount per share such Holder would receive if such Holder converted such Series D convertible preferred stock into Common Stock immediately prior to the date of such payment. Further, the holders of Series D convertible preferred stock 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 the such shares of Series D convertible preferred stock. The existence of such a senior security could have an adverse effect on the value of our common stock.

Holders of the Series D convertible preferred stock have rights that may restrict our ability to operate our business.

Under the certificate of designations establishing the terms of the Series D convertible preferred stock, 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 convertible preferred stock. Such restrictions may have an adverse effect on our ability to operate our business while the shares of Series D convertible preferred stock are outstanding.

Our stockholders will experience significant dilution upon the issuance of common stock upon conversion or redemption payments under the Series D convertible preferred stock and if the shares of our common stock underlying our warrants, including those issued in this offering and the Common Offering, are exercised or converted.

The issuance of common stock as mandatory redemption payments or upon conversion of some or all of the Series D convertible preferred stock (whether by us or by the holders) will dilute the ownership interests of our existing holders of our shares of common stock. If the initial aggregate stated value of the Series D convertible preferred stock is converted into our common stock at its initial conversion price, we would issue shares of common stock upon their conversion. This excludes the effect of any exercise of the warrants issued in this offering or the Common Offering, and it excludes

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the effect of any common stock we may issue as dividends or as conversion shares, in lieu of paying monthly 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 convertible preferred stock is adjustable based on certain events, including if we voluntarily reduce the conversion price. Our payment of stock as dividends or conversion of installment payments will not trigger such an adjustment. The conversion price of the Series D convertible preferred stock will also be adjusted if 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 addition, we have a significant number of securities convertible into, or allowing the purchase of, our common stock. Investors could be subject to increased dilution upon the conversion or exercise of these securities. The common stock warrants offered in this offering and the Common Offering have an exercise price that is adjustable if we effect a stock split, combination or similar transaction, depending on the relative trading prices before and after the combination. Also, the issuance of additional shares as a result of such conversion or purchase, or their subsequent sale, could adversely affect the price of our common stock.

The redemption right in the Series D convertible preferred stock could discourage a potential acquirer.

The redemption rights in the Series D convertible preferred stock being sold in this offering 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 convertible preferred stock upon a change of control or fundamental transaction would not necessarily afford you protection in the event of a highly leveraged transaction, or, with respect to the change of control redemption right in the Series D convertible preferred stock, 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 with the voting power to elect a majority of the board of directors of the surviving entity.

The premium payable on the Series D convertible preferred stock redeemed in connection with certain changes of control or a mandatory repurchase may not adequately compensate you for any lost value of your Series D convertible preferred stock as a result of such transaction.

Holders who redeem their Series D convertible preferred stock upon a "Triggering Event" or whose Series D convertible preferred stock are redeemed in connection with our decision to mandatorily redeem the Series D convertible preferred stock will be entitled to receive a premium set forth in the certificate of designation of at least 25%. Any premium or other amounts you may receive in connection with these events may not adequately compensate you for any lost value of your Series D convertible preferred stock as a result of such transaction.

The conversion rate of the Series D convertible preferred stock may not be adjusted for all dilutive events.

The conversion rate of the Series D convertible preferred stock 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. The conversion rate will not be adjusted for other events, such as an issuance of our shares of common stock in certain acquisition transactions, new issuances of common stock or common stock equivalents below the conversion price of the Series D convertible preferred stock or pursuant to employee stock options, that may adversely affect the trading

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price of our shares of common stock. 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 convertible preferred stock but does not result in an adjustment to the conversion rate.

You may be deemed to receive a taxable distribution without the receipt of any cash or property.

The conversion rate of the Series D convertible preferred stock will be adjusted in certain circumstances. Certain adjustments to the conversion rate of the Series D convertible preferred stock and certain adjustments to the number of shares underlying the common stock warrants and/or exercise price of the common stock warrants, and the failure to make certain adjustments with respect to the Series D convertible preferred stock and warrants that have the effect of increasing your proportionate interest in our assets or earnings may in some circumstances result in a taxable constructive distribution to you for U.S. federal income tax purposes, notwithstanding the fact that you do not receive an actual distribution of cash or property. In addition, you may be subject to U.S. federal withholding taxes in connection with such a constructive distribution. You are urged to consult your tax advisors with respect to the U.S. federal income tax consequences resulting from an adjustment to the conversion rate of the Series D convertible preferred stock.

Risks Related to this Offering and our Common Stock

Our stock price has been and could remain volatile, which could further adversely affect the market price of our stock, our ability to raise additional capital and/or cause us to be subject to securities class action litigation.

The market price of our common stock has historically experienced and may continue to experience significant volatility. Between January 1, 2016 and December 16, 2016, the sales price of our common stock fluctuated from a high of \$2.28 per share to a low of \$1.18, and on December 16, 2016, the closing sale price of our common stock was \$1.32 per share. Our progress in developing and commercializing our products, our quarterly operating results, announcements of new products by us or our competitors, our perceived prospects, changes in securities analysts' recommendations or earnings estimates and our ability to meet such estimates, changes in general conditions in the economy or the financial markets, adverse events related to our strategic relationships, significant sales of our common stock by existing stockholders, including one or more of our strategic partners, and other developments affecting us or our competitors could cause the market price of our common stock to fluctuate substantially. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the price of our common stock. Such market price volatility could adversely affect our ability to raise additional capital. In addition, we may be subject to securities class action litigation as a result of volatility in the price of our common stock, which 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.

Because the shares of Series D convertible preferred stock are convertible into shares of our common stock, volatility or depressed prices for our common stock could have a similar effect on the value of the shares of Series D convertible preferred stock. Holders of Series D convertible preferred stock who receive our shares of common stock upon conversion of their Series D convertible preferred stock, or upon our election to pay dividends or installment amounts in common stock, will be subject to the risk of volatile market prices and wide fluctuations in the market price of our shares of common stock. Depending on the market price of our common stock during the applicable measurement periods, and our election to pay such amounts in cash or in stock, the number of shares of common stock issued to

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the holders of Series D convertible preferred stock could be very significant. In addition, many of the factors listed above are beyond our control. These factors may cause the market price of our shares of common stock to decline, regardless of our financial condition, results of operations, business or prospects. It is impossible to assure you that the market prices of our shares of common stock will not fall in the future.

The market price of our common stock may be adversely affected by market conditions affecting the stock markets in general, including price and trading fluctuations on the NASDAQ Capital Market.

Market conditions may result in volatility in the level of, and fluctuations in, market prices of stocks generally and, in turn, our common stock and sales of substantial amounts of our common stock in the market, in each case being unrelated or disproportionate to changes in our operating performance.

Future sales of a significant number of shares of our common stock or other dilution of our equity could depress the market price of our common stock.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. Except as described under "Underwriting," we are not restricted from issuing additional shares of our common stock, including any securities that are convertible into or exchangeable for, or that represent the right to receive, our common stock. The market price of our common stock could decline as a result of sales of shares of our common stock or sales of such other securities made after this offering or the perception that such sales could occur.

If securities or industry analysts do not publish, or cease publishing, research or reports about us, our business or our market, or if they change their recommendations regarding our stock adversely, our stock price and trading volume could decline.

The trading market for our common stock is influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If any of these analysts who may cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, our stock price would likely decline. If any analyst who may cover us were to cease coverage of our company or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause our stock price or trading volume to decline.

Investors in this offering will experience immediate and substantial dilution.

The public offering price of the securities offered pursuant to this prospectus supplement is substantially higher than the net tangible book value per share of our common stock. Therefore, if you purchase shares of common stock in this offering, you will incur immediate and substantial dilution in the pro forma net tangible book value per share of common stock from the price per share that you pay for the common stock. If the holders of outstanding options or warrants exercise those options or warrants at prices below the public offering price, you will incur further dilution. See the section entitled "Dilution" below for a more detailed discussion of the dilution associated with this offering.

We have not paid cash dividends to our shareholders and currently have no plans to pay future cash dividends.

We plan to retain earnings to finance future growth and have no current plans to pay cash dividends to shareholders (except in accordance with the terms of our outstanding Series C Preferred Stock).

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Because we have not paid cash dividends, holders of our securities will experience a gain on their investment in our securities only in the case of an appreciation of value of our securities. You should neither expect to receive dividend income from investing in our securities nor an appreciation in value.

There is no public market for the warrants to purchase common stock being offered in this offering.

There is no established public trading market for the warrants being offered in this offering, and we do not expect a market to develop. In addition, we do not intend to apply for listing of the warrants on any securities exchange. Without an active market, the liquidity of the warrants will be limited.

Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.

Until holders of warrants acquire shares of our common stock upon exercise of the warrants, holders of warrants will have no rights with respect to the shares of our common stock underlying such warrants. Upon exercise of the warrants, the holders thereof will be entitled to exercise the rights of a common stockholder only as to matters for which the record date occurs after the exercise date.

Provisions in our charter documents and Delaware law may discourage or delay an acquisition that stockholders may consider favorable, which could decrease the value of our common stock.

Our certificate of incorporation, our bylaws, and Delaware corporate law contain provisions that could make it harder for a third party to acquire us without the consent of our board of directors. These provisions include those that: authorize the issuance of up to 5,000,000 shares of preferred stock in one or more series without a stockholder vote; limit stockholders' ability to call special meetings; establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted on by stockholders at stockholder meetings; and provide for staggered terms for our directors. We have a shareholders rights plan that may be triggered if a person or group of affiliated or associated persons acquires beneficial ownership of 15% or more of the outstanding shares of our common stock. In addition, in certain circumstances, Delaware law also imposes restrictions on mergers and other business combinations between us and any holder of 15% or more of our outstanding common stock.

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 over financial reporting 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 the design and operating effectiveness of our controls over financial reporting. We are currently required to have our auditors attest to the effectiveness of our internal control over financial reporting. Our compliance with the annual internal control report requirement will depend on the effectiveness of our financial reporting and data systems and controls. Inferior internal controls increase the possibility of errors and 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.

In addition, our internal control systems rely on people trained in the execution of the controls. Loss of these people or our inability to replace them with similarly skilled and trained individuals or new processes in a timely manner could adversely impact our internal control mechanisms.

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The requirements of being a public company may strain our resources, divert management's attention and affect our ability to attract and retain qualified board members and officers.

As a public company, we are subject to the reporting requirements of the Securities Exchange Act of 1934 (the "Exchange Act"), the listing requirements of the NASDAQ Capital Market and other applicable securities rules and regulations. Compliance with these rules and regulations increase our legal and financial compliance costs, make some activities more difficult, time-consuming or costly and increase demand on our systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and operating results and maintain effective disclosure controls and procedures and internal control over financial reporting. To maintain and, if required, improve our disclosure controls and procedures and internal control over financial reporting to meet this requirement, significant resources and management oversight may be necessary.

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USE OF PROCEEDS

We expect to receive approximately \$\frac{1}{2}\text{million in net proceeds from this offering. "Net proceeds" is what we expect to receive after paying the expenses of this offering, including the underwriting discounts and commissions, as described in "Underwriting" below, and other estimated offering expenses payable by us, which include legal, accounting and printing fees.

We intend to use the net proceeds of this offering and the Common Offering, together with our existing cash and cash equivalents, to prepay the outstanding principal amount of our loan with Hercules and pay the fees and expenses related to such loan, which, as of the date of this prospectus supplement, totaled \$29.0 million.

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RATIO OF EARNINGS TO FIXED CHARGES AND PREFERENCE SECURITY DIVIDENDS

The following table sets forth our ratio of earnings to fixed charges and the ratio of our combined fixed charges and preference stock dividends to earnings on a historical basis for the periods indicated. For purposes of this calculation, "earnings" consist of net loss attributable to the Company plus fixed charges. "Fixed charges" consist of the sum of interest expense and the component of rental expense believed by management to be representative of the interest factor for those amounts. Earnings in each of the periods indicated were inadequate to cover fixed charges. The coverage deficiency for each period is specified below.

		Year Ended December 31,						
	2011	2012	2013	2014	2015	September 30, 2016		
Ratio of Earnings to Combined Fixed Charges and Preference Dividends								
Coverage Deficiency (in \$ thousands)	27,454 S-23	31,862	63,201	88,969	55,795	38,746		

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DILUTION

If you invest in our Series D convertible preferred stock and warrants, your ownership interest in the common stock underlying the securities contained therein (such as by conversion of the Series D convertible preferred stock or exercise of the common stock warrants at their initial exercise price) will be diluted by the difference between the price per share you pay and the net tangible book value per share of our common stock immediately after this offering.

Our net tangible book value as of September 30, 2016, was approximately \$81.6 million, or \$0.45 per share of our common stock, based upon 180,431,759 shares of our common stock outstanding as of that date. Net tangible book value per share is determined by dividing our total tangible assets, less total liabilities, by the number of shares of our common stock outstanding as of September 30, 2016. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock in this offering and the net tangible book value per share of our common stock immediately after this offering, as described below.

The following table illustrates the dilution applicable to purchasers of common stock upon exercise of the common stock warrants included in the combination offered in this offering. For purposes of this calculation, (i) the entire purchase price for the combination is being allocated to the Series D convertible preferred stock, (ii) we assume that all common stock warrants will be exercised in cash immediately following the closing, (iii) all underwriting fees and commissions and our estimated offering expenses are allocated to the Series D convertible preferred stock and not the warrants, and (iv) we exclude both the effect of the receipt of the purchase price for the Series D convertible preferred stock and warrants in this offering and the potential effect of any conversion of our Series D convertible preferred stock into shares of our common stock, or any dividend or redemption payments with respect to the Series D convertible preferred stock that we may make in shares of our common stock. Without taking into account any other changes in our net tangible book value after September 30, 2016, other than to give effect to our receipt of the estimated proceeds from the exercise of common stock warrants covering shares of common stock at an exercise per share, our pro forma net tangible book value as of September 30, 2016, would have been approximately \$ price of \$ per share. This represents an immediate increase in the net tangible book value of \$ \$ per share to our existing stockholders, and an immediate dilution in net tangible book value of \$ per share to investors exercising warrants in this offering. The following table illustrates this per share dilution:

Exercise price per share of warrants sold in this offering:

\$

Net tangible book value per share as of September 30, 2016:

0.45

Increase in net tangible book value per share attributable to investors participating in this offering upon exercise of warrants:

As adjusted net tangible book value per share as of September 30, 2016, after giving effect to this offering:

Dilution per share to investors participating in this offering upon warrant exercise:

\$

The foregoing table and discussion are based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby, and excludes:

14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share;

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1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our Common Offering. See "Summary Recent Developments" for more information.

To the extent that outstanding options or warrants (including those issued in this offering and the Common Offering) are exercised, you may experience further dilution. In addition, we may choose to raise additional capital due to market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans. To the extent that additional capital is raised through the sale of equity or convertible debt securities, the issuance of these securities could result in further dilution to our stockholders.

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DESCRIPTION OF SECURITIES

In this offering, we are offering shares of Series D convertible preferred stock and warrants to purchase up to shares of common stock. Each share of Series D convertible preferred stock is being sold together with 5.5-year warrants to purchase one share of common stock at an exercise price of \$ per share. The shares of common stock and warrants will be issued separately. This prospectus also relates to the offering of shares of our common stock issuable upon the conversion, if any, of the Series D convertible preferred stock and the exercise, if any, of the warrants.

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" starting on page 11 of the accompanying prospectus.

Series D Convertible Preferred Stock

General. We are authorized to issue up to 5,000,000 shares of preferred stock, par value \$0.01 per share, with such designations, rights and preferences as may be determined from time to time by our Board of Directors, without further stockholder approval. Our Board of Directors has created out of the authorized and unissued shares of our preferred stock a series of preferred stock designated as the Series D Convertible Preferred Stock (the "Preferred Stock"), comprising up to shares of Preferred Stock (the "Preferred Shares").

The following is a brief description of the terms of the Preferred Stock being offered in this offering. The description of the Preferred Stock contained herein does not purport to be complete and is qualified in its entirety by reference to the Certificate of Designations for the Preferred Stock, which is attached hereto as Exhibit A and which will be filed as an exhibit to a Current Report on Form 8-K to be filed with the SEC by us in connection with this offering.

Stated Value. Each share of Preferred Stock will be issued with an initial Stated Value of \$1,000 per share (the "Stated Value"). The Stated Value is subject to reduction upon voluntary or scheduled redemptions or conversions as described in more detail below.

Maturity Date. The maturity date of the Preferred Stock will be December , 2017, unless extended at the option of the Holder of the Preferred Shares. For a description of the extension of the maturity date, see " Mandatory Redemption at Maturity" below.

Ranking. Except for our Series C Redeemable Convertible Preferred Stock, which shall rank senior to the Preferred Stock as to dividends, distributions and payments upon our liquidation, dissolution and winding up, and subject to the issuance of capital stock that is of senior or pari-passu rank to the Preferred Shares, all shares of our capital stock, including our common stock, shall be junior in rank to all Preferred Shares with respect to dividends, distributions and payments upon our liquidation, dissolution and winding up or any capital stock that has a maturity date or other date requiring redemption or repayment prior to the maturity date of the Preferred Stock. Without the prior express written consent of the holders of a majority of the Preferred Shares then outstanding, we may not authorize or issue capital stock that is of senior or pari-passu rank to the Preferred Shares in respect of dividends, distributions and payments upon our liquidation, dissolution and winding up. In the event of our merger or consolidation with or into another corporation, the Preferred Shares shall maintain their relative powers, rights, designations, privileges and preferences.

Dividends. Holders of the Preferred Shares are not entitled to receive dividends except in connection with certain purchase rights and other corporate events, as described in the certificate of designations,

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or in connection with certain distributions of assets, as described in the certificate of designations, or as, when and if declared by the Board of Directors acting in its sole and absolute discretion.

Voting Rights. Holders of Preferred Shares shall have no voting rights, except on matters required by law or under the certificate of designations to be submitted to a class vote of the holders of the Preferred Shares. Except where a greater vote is required by law or by another provision of our Certificate of Incorporation, without first obtaining the affirmative vote or consent of holders of at least a majority of the Preferred Shares then outstanding, voting together as a single class, we may not: (a) amend or repeal our Certificate of Incorporation or bylaws, or file any certificate of designations or articles of 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 under the certificate of designations, regardless of whether any such action shall be by means of amendment to our Certificate of Incorporation or by merger, consolidation or otherwise; (b) other than as provided under the certificate of designations, increase or decrease (other than by conversion) the authorized number of Preferred Shares; (c) create or authorize (by reclassification or otherwise) any new class or series of preferred stock ranking senior to or pari passu with the Preferred Shares; (d) purchase, repurchase or redeem any shares of capital stock, including the common stock, ranking junior to the Preferred Shares (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) pay dividends or make any other distribution on any shares of our capital stock, including the common stock, that rank junior to the Preferred Shares; (f) issue any Preferred Shares other than as contemplated hereby; or (g) whether or not prohibited by the terms of the Preferred Shares, circumvent a right of the Preferred Shares under the certificate of designations.

Covenants.

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 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.

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.

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.

The Company shall maintain, and cause each of its Significant Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations with respect to its properties (including all real properties leased or owned by it) and business, in such amounts and covering

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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.

The Company shall not, directly or indirectly, without the prior written consent of the Required Holders of the Preferred Shares then outstanding, 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; provided that no prior consent will be required for Indebtedness the terms of which (a) permit such redemptions and payments in an aggregate amount equal to the lesser of (i) \$20,000,000 and (ii) the product of (A)1.25 multiplied by (B) the aggregate Stated Value of the Preferred Shares outstanding as of the relevant measurement so long as no default or event of default has occurred and is continuing under such Indebtedness, or (b) prohibit such redemptions or payments solely if a default or event of default has occurred and is continuing under such Indebtedness, agreement, contract or understanding (such Indebtedness described in this proviso, "Permitted Indebtedness").

Optional Installment Conversion or Redemption by the Company. Commencing on January 31, 2017 and on the last business day of each month thereafter through the maturity date (each an "Installment Date"), provided that all Equity Conditions (as defined below) have been satisfied, we will convert from the Holders of the Preferred Shares, an amount equal to the aggregate Stated Value of Preferred Shares (as such amount may be reduced by earlier conversion, redemption or otherwise, the "Installment Amount") by converting the Installment Amount into shares of our common stock (an "Installment Conversion"); provided, however, that we may instead, at our option following notice to the Holders, pay the Installment Amount by redeeming such Installment Amount for cash (an "Installment Redemption") or by any combination of an Installment Conversion and an Installment Redemption so long as we convert and/or redeem all of the outstanding applicable Installment Amount on the applicable Installment Date.

In the event of an Installment Conversion, we will convert the applicable Installment Amount of the Preferred Shares (such amount to be converted, the "Installment Conversion Amount") at the greater of (x) \$0.40 (the "Floor Price") and (y) the lowest of (i) the Conversion Price then in effect and (ii) 88% of the average volume weighted average price ("VWAP") of the Common Stock for the three (3) lowest trading days during the seven (7) consecutive trading day period immediately prior to the applicable Installment Date (the "Installment Conversion Price"). If the Equity Conditions are not satisfied at any time after notice of an Installment Conversion and prior to the applicable Installment Date, then any Holder may require us to do any one or more of the following: (A) we will redeem all or any part designated by the Holder of the applicable Installment Conversion Amount at 125% of such designated portion of the Installment Conversion Amount, and/or (B) 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 part of such unconverted Installment Conversion Amount shall thereafter be adjusted to equal the lesser of (A) the Installment Conversion Price as in effect on the date on which such Holder voided the Installment Conversion and (B) the Installment Conversion Price that would be in effect on the date on which such Holder delivers a conversion notice relating thereto as if such date was an Installment Date.

In the event of an Installment Redemption, we will redeem for cash the applicable Installment Amount (such amount to be redeemed, the "Installment Redemption Amount") on the applicable Installment Date. If we fail to redeem the Installment Redemption Amount on the applicable Installment Date by payment of the applicable redemption price, then at the greater of (x) the Floor Price and (y) the

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option of the Holder, the Holder may require us to convert all or any part of the Installment Redemption Amount or void the redemption. If the Holder elects to convert, the conversion is at the lowest of (i) the Conversion Price then in effect and (ii) 88% of the average VWAP of the Common Stock for the three (3) lowest trading days during the seven (7) consecutive trading day period immediately prior to the date that Holder provides notice of such election. If the Holder elects to void the redemption, the Additional Amount (as described in the certificate of designations) of the applicable Preferred Shares shall be increased by an amount equal to the difference between (1) the applicable redemption price 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 is voided, (B) the greater of (x) the Floor Price and (y) 85% of the lowest closing bid price of the common stock during the period described in the certificate of designations and (C) the greater of (x) the Floor Price and (y) 85% of the average five (5) lowest VWAPs of the common stock during the twenty (20) consecutive trading day period specified in the certificate of designations.

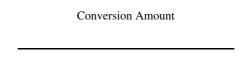
Subject to certain limitations described in the certificate of designations, each Holder will have the right to defer all or any portion of any Installment Amount to a later or earlier Installment Date, as applicable.

The term "Equity Conditions" means, with respect to any given date of determination: (i) on each day during the period beginning thirty calendar days prior to the applicable date of determination and ending on and including the applicable date of determination (the "Equity Conditions Measuring Period"), the common stock (including all shares of common stock issued or issuable upon conversion of the Preferred Shares and exercise of the Warrants) is listed or designated for quotation (as applicable) on the NASDAQ Capital Market or on one of several named alternative exchanges; (ii) during the Equity Conditions Measuring Period, we shall have delivered common stock upon conversion of the Preferred Shares on a timely basis; (iii) any shares of common stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount (as defined below) being redeemed in the event requiring this determination) may be issued in full without violating the limitation on beneficial ownership or the rules or regulations of the NASDAQ Capital Market; (iv) any shares of common stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth in the certificate of designations)) may be issued in full without violating the rules or regulations of the stock exchange on which the common stock is then listed; (v) on each day during the Equity Conditions Measuring Period, no public announcement of a pending, proposed or intended fundamental transaction (as described in the certificate of designations) shall have occurred which has not been abandoned, terminated or consummated; (vi) none of the Holders shall be in possession of any material, non-public information provided to any of them by us or any of our subsidiaries or any of our respective affiliates, employees, officers, representatives, agents or the like; (vii) on each day during the Equity Conditions Measuring Period we otherwise shall have been in compliance with each, and shall not have breached any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any transaction document, including, without limitation, we shall not have failed to timely make any payment pursuant to any transaction document; (viii) during the Equity Conditions Failure Period (as described in the certificate of designations), (A) the average VWAP of the common stock fails to exceed \$0.50 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions involving the common stock) or (B) the average aggregate daily dollar trading volume of the common stock on the Nasdaq Capital Market fails to be more than \$200,000; (ix) on the applicable date of determination (A) no

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Authorized Share Failure (as described in the certificate of designations) shall exist or be continuing and 100% of the sum of (I) the maximum number of shares of common stock then issuable upon conversion of the Preferred Shares (without regard to any limitations on conversion) and (II) the maximum number of shares of common stock issuable upon exercise of the Warrants (without regard to any limitations on exercise) are available under our certificate of incorporation and reserved to be issued pursuant to the certificate of designations and the Warrants, as applicable, and (B) all shares of common stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without resulting in an Authorized Share Failure; (x) on each day during the 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; (xi) the Installment Conversion price is determined by the Floor Price; or (xii) the shares of common stock issuable pursuant to the event requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on the NASDAQ Capital Market or on one of several named alternative exchanges.

Optional Conversion by the Holders. At any time following the issuance of the Preferred Shares, each holder of the Preferred Shares shall be entitled to convert any whole number of Preferred Shares, into fully paid and nonassessable shares of common stock. The number of shares of common stock issuable upon conversion of each Preferred Share shall be determined according to the following formula (the "Conversion Rate"):



Conversion Price

The "Conversion Amount" means with respect to each Preferred Share, as of the applicable date of determination, the Stated Value, plus any declared and unpaid dividends and late charges as provided in the certificate of designations. The "Conversion Price" means \$, with respect to each Preferred Share, as of any Conversion Date or other date of determination, subject to adjustment for stock splits, stock dividends, stock combinations, recapitalizations or similar transactions involving our common stock. No fractional shares of common stock are to be issued upon the conversion of any Preferred Share, but rather the number of shares of common stock to be issued will be rounded to the nearest whole number.

The conversion of Preferred Shares is governed by the terms set out in the certificate of designations. In the event we fail to timely deliver common stock on conversion by a Holder, and after the delivery deadline such Holder purchases shares of our common stock to deliver in satisfaction of a sale by that Holder, we will be required to either pay cash to the Holder in an amount representing its total purchase price for those shares (including commissions and expenses) in lieu of delivering the shares of common stock on conversion, or (at the Holder's election) deliver shares of common stock plus an amount in cash representing the difference between the Holder's purchase price for the shares it purchased and the number of shares issued upon conversion multiplied by the VWAP of our common stock on the conversion date.

None of the above limits the right that holders of the Preferred Shares have to require us to repurchase the Preferred Shares. See "Redemption Option by the Holders Upon a Triggering Event" below.

Mandatory Conversion. We have the right, provided that no Equity Conditions Failure exists, to require each Holder of Preferred Shares to convert all or any number of the Preferred Shares held by such Holder (treating all Holders on a proportionate basis) at the Conversion Rate if the closing sale

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price of our common stock equals at least 200% of the Conversion Price for twenty (20) consecutive trading days.

Holder Optional Redemption after Maturity Date. At any time from and after the tenth (10) business day prior to the Maturity Date, any Holder may require us to redeem (a "Maturity Redemption") all or any number of Preferred Shares held by such Holder at a purchase price equal to 100% of the Conversion Amount of such Preferred Shares (the "Maturity Redemption Price") by delivery of written notice thereof (the "Maturity Redemption Notice") to us. The Maturity Redemption Notice must state the date that we are required to pay to such Holder such Maturity Redemption Price (the "Maturity Redemption Date"), which date may be no earlier than ten (10) business days following the date of delivery of such Maturity Redemption Notice. Such Maturity Redemptions will be conducted in accordance with the redemption provisions contained in the certificate of designations.

Redemption/Conversion Option of the Holders upon a Triggering Event. In addition to all other rights of the Holders contained in the certificate of designations, after a Triggering Event (as described below), each Holder will have the right, at such Holder's option, to require us to redeem and/or convert all or a portion of such Holder's Preferred Shares. Any such Triggering Event redemption would be at a price per Preferred Share equal to the greater of (i) 120% of the Conversion Amount and (ii) the product of (A) the Conversion Rate in effect at such time as such Holder delivers notice of the redemption multiplied by (B) 120% of the greatest closing sale price of the common stock on any trading day during the period specified in the certificate of designations. Any such Triggering Event conversion would be at a conversion rate equal to the quotient of (i) 120% of the Conversion Amount divided by (ii) the lower of (A) the applicable Conversion Price in effect on the trading day immediately preceding the notice of conversion and (B) the greater of (1) \$0.50 and (2) 85% of the lowest VWAP of the common stock on any trading day during the period specified in the certificate of designations.

If we fail to redeem the required Preferred Shares in any Triggering Event Redemption on the applicable redemption date by payment of the applicable redemption price, then at the Holder shall have the option to require us 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 has not been paid. In each case (i) the Additional Amount (as described in the certificate of designations) of such Preferred Shares shall be increased by an amount equal to the difference between (1) the applicable redemption price minus (2) the Stated Value portion of the Conversion Amount submitted for redemption and (ii) 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) the greater of (x) the Floor Price and (y) 85% of the lowest closing bid price of the common stock during the period described in the certificate of designations and (C) the greater of (x) the Floor Price and (y) 85% of the average of the five (5) lowest VWAPs of the common stock during the twenty (20) consecutive trading day period ending immediately prior to the applicable conversion date.

A "Triggering Event" shall be deemed to have occurred upon any of the following events, among other events described in the certificate of designations:

- (i) any of the Preferred Shares or shares of common stock issuable upon conversion of the Preferred Shares are not freely tradable under Rule 144 of the Securities Act without restriction;
- (ii) the suspension from trading or failure of the common stock to be listed on the NASDAQ Capital Market (or other eligible market as specified in the certificate of designations) for a period of five (5) consecutive trading days;
- (iii) (A) our failure on two or more occasions to timely deliver the required number of shares of common stock after any applicable conversion date or (B) our notice, written or oral, to any Holder of

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our intention not to comply, as required, with a request for conversion of any Preferred Shares into shares of common stock that is tendered;

- (iv) our failure to pay to the Holder any amounts when and as due pursuant to the certificate of designations or any other transaction document;
- (v) specified voluntary or involuntary events involving bankruptcy, insolvency, decrees or orders for relief under bankruptcy, insolvency, reorganization and similar laws, the appointment of a custodian, receiver or similar official, an order for the winding up or liquidation of our affairs, commencement by us of a voluntary case or proceeding under bankruptcy or similar laws, making an assignment for the benefit of creditors, and similar voluntary or involuntary events enumerated in the certificate of designations (in the case of involuntary events, and such events are not dismissed within 60 days); or
- (vi) we breach any representation, warranty, covenant or other term or condition of any Transaction Document, except, in the case of a breach of a covenant which is curable, only if such breach remains uncured for a period of five (5) consecutive trading days.

Redemption Right of the Holders Upon a Change of Control. In the event of a fundamental transaction, as described in the certificate of designations, generally including, among other transactions, any merger with or into another entity in which we are not the surviving entity or our stockholders immediately prior to such merger or consolidation do not own at least 50% of the outstanding voting securities of the surviving entity, or a sale of all or substantially all of our assets, each Holder will have the right, at such Holder's option, to require us to redeem all or a portion of such Holder's Preferred Shares. Any such Change of Control redemption would be at a price per Preferred Share equal to 125% of the greatest of (i) the Conversion Amount being redeemed, (ii) the product of (A) the Conversion Amount being redeemed multiplied by (B) the quotient determined by dividing (1) the greatest closing sale price of the common stock during the period specified in the certificate of designations by (2) the Conversion Price, and (iii) the product of (A) the Conversion Amount being redeemed and (B) the quotient determined by dividing (1) the aggregate cash consideration and the aggregate cash value of any non-cash consideration per share of common stock to be paid to holders of the common stock upon consummation of such Change of Control by (2) the Conversion Price.

Fundamental Transactions. We will not enter into a "fundamental transaction" unless the successor assumes our obligations under the certificate of designations and the warrants to purchase common stock issued in this offering and the successor entity or its parent is a publicly traded corporation whose common stock is quoted on or listed for trading on one of the stock exchanges described in the certificate of designations. Upon the occurrence of a fundamental transaction, the successor entity will succeed to our obligations.

Limitation on Beneficial Ownership. We will not effect any conversion of Preferred Shares, and no Holder shall have the right to convert any Preferred Shares, to the extent that after giving effect to such conversion, such Holder (together with its affiliates and certain attributable parties) would beneficially own in excess of 9.99% (the "Maximum Percentage") of the shares of our common stock outstanding immediately after giving effect to such conversion. For purposes of the foregoing, the number of shares of common stock beneficially owned by a Holder and its affiliates and attributable parties shall include the number of shares of common stock issuable upon conversion of the Preferred Shares with respect to which the determination is being made, but shall exclude the number of 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 its affiliates or attributable parties and (B) exercise or conversion of the unexercised or unconverted portion of any other of our securities (including, without limitation, the Warrants) beneficially owned by such Holder or any of its affiliates or attributable parties subject to a limitation on conversion or exercise analogous to the limitation contained in the certificate of designations. Except as set forth in the preceding sentence, beneficial

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ownership shall be calculated in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended. By written notice to us, the Holder may from time to time increase or decrease the Maximum Percentage to any other percentage not in excess of 9.99%; provided that (i) any such increase will not be effective until the sixty-first (61st) day after such notice is delivered to us, and (ii) any such increase or decrease will apply only to the Holder providing such written notice and its to its affiliates and not to any other Holder.

Exchange Cap. We may not issue any shares of common stock upon conversion of any Preferred Shares or otherwise pursuant to the terms of the Series D Certificate of Designations if the issuance of such shares of common stock would, together with the shares of common stock issued in the Common Offering, exceed the aggregate number of shares of common stock which we may issue upon exercise or conversion (as the case may be) of the Preferred Shares without breaching our obligations under the rules of the Nasdaq Capital Market, unless we obtain the approval of our stockholders as required by the applicable rules of the Nasdaq Capital Market for issuances of shares of Common Stock in excess of such amount.

Reservation of Shares Issuable Upon Conversion. So long as any Preferred Shares remain outstanding, we will be required to all times reserve at least 140% of the number of shares of common stock as shall from time to time be necessary to effect the conversion of all of the Preferred Shares then outstanding (without regard to any limitations on conversions and assuming the Preferred Shares remain outstanding until the maturity date).

Liquidation Preference. In the event of either a voluntary or involuntary liquidation, dissolution or winding up of us or our subsidiaries, the assets of which constitute all or substantially all of the assets of our business and that of our subsidiaries taken as a whole, in a single transaction or series of transactions (a "liquidation event"), the Holders shall be entitled to receive in cash out of our assets, whether from capital or from earnings available for distribution to its stockholders, after any amount (including the Series C Liquidation Amount) that is required to be paid to our Series C Preferred Stock and before any amount shall be paid to the holders of any of capital stock ranking junior to the Preferred Shares, but pari passu with any capital stock then outstanding that ranks pari passu with the Preferred Shares, an amount per Preferred Share equal to the greater of (A) 125% of the Conversion Amount thereof on the date of such payment and (B) 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.

Transfer of Shares. A Holder may transfer some or all of its Preferred Shares, except that 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.

Warrants

The following description of the warrants offered hereby is a summary. It summarizes only those aspects of the warrants that we believe will be most important to your decision to invest in the warrants. You should keep in mind, however, that it is the terms in the warrants, and not this summary that define your rights as a holder of the warrants. There may be other provisions in the warrants that are also important to you. You should read the forms of the warrants for a full description of the terms of the warrants.

Each full warrant entitles the holder thereof to purchase one share of our common stock at an exercise price equal to \$ per share. The warrants will be exercisable during the period commencing on the six-month anniversary of the date of original issuance and ending five years from such six-month anniversary, the expiration date of the warrants.

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The warrants may be exercised by delivering to the Company a written notice of election to exercise the warrant, appropriately completed, duly signed and delivered, and delivering to the Company cash payment of the exercise price, if applicable. Upon delivery of the written notice of election to exercise the warrant, appropriately completed and duly signed, and cash payment of the exercise price, if applicable, on and subject to the terms and conditions of the warrant, we will deliver or cause to be delivered, to or upon the written order of such holder, the number of whole shares of common stock to which the holder is entitled, which shares may be delivered in book-entry form. If a warrant is exercised for fewer than all of the shares of common stock for which such warrant may be exercised, then upon request of the holder and surrender of such warrant, we shall issue a new warrant exercisable for the remaining number of shares of common stock.

If, and only if, a registration statement relating to the issuance of the shares underlying the warrants is not then effective or available, a holder of warrants may exercise the warrants on a cashless basis, where the holder receives the net value of the warrant in shares of. However, if an effective registration statement is available for the issuance of the shares underlying the warrants, a holder may only exercise the warrants through a cash exercise. Shares issued pursuant to a cashless exercise would be issued pursuant to the exemption from registration provided by Section 3(a)(9) of the Securities Act, and thus the shares of common stock issued upon such cashless exercise would take on the characteristics of the warrants being exercised, including, for purposes of Rule 144(d) promulgated under the Securities Act, a holding period beginning from the original issuance date of the warrants.

If we fail to timely deliver shares of common stock pursuant to any warrant exercise, and such exercising holder elects to purchase shares of common stock (in an open market transaction or otherwise) to deliver in satisfaction of a sale by such holder of all or a portion of the shares of common stock for which such warrant was exercised, then we will be required to deliver, at the holder's election, either (i) an amount in cash equal to the full purchase price paid by the holder to acquire such alternative shares or (ii) (A) the shares of common stock for which the warrant was exercised and (B) an amount in cash equal to the excess (if any) by which the price paid for the alternative shares exceeds any trading price of the common stock selected by the holder in writing as in effect at any time during the period beginning on the exercise date and ending on the date such shares are delivered.

If, at any time while the warrants are outstanding, we directly or indirectly, in one or more related transactions, enter into a fundamental transaction, as described in the warrants and generally including any merger with or into another entity in which we are not the surviving entity or our stockholders immediately prior to such merger or consolidation do not own at least 50% of the outstanding voting securities of the surviving entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then each holder shall become entitled to receive the same amount and kind of securities, cash or property as such holder would have been entitled to receive upon the occurrence of such fundamental transaction if the holder had been, immediately prior to such fundamental transaction, the holder of the number of shares of common stock then issuable upon exercise of such holder's warrants. Any successor to us, surviving entity or the corporation purchasing or otherwise acquiring such assets shall assume the obligation to deliver to the holder such alternate consideration, and the other obligations, under the warrants. Additionally, following any fundamental transaction that is also a change of control, as described in the warrants, then if elected by the warrant holder via written notice delivered to us within 30 days following such change of control, we must acquire (or cause the successor entity to acquire) all of the electing holder's warrants outstanding as of the effective date of such change of control by paying to such holder, at our option, either (i) common stock (or qualifying securities of the successor entity) valued at the value of the consideration received by the shareholders in such change of control or (ii) cash, in an amount equal to the Black-Scholes valuation of the unexercised portion of such holder's warrants that remained as of the effective date of such change of control.

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The exercise price and the number and type of securities purchasable upon exercise of the warrants are subject to adjustment upon certain corporate events, including certain combinations, consolidations, liquidations, mergers, recapitalizations, reclassifications, reorganizations, stock dividends and stock splits, a sale of all or substantially all of our assets and certain other events. The terms of the warrants may make it difficult for us to raise additional capital at prevailing market terms in the future.

If, at any time while the warrants are outstanding, we declare or make any dividend or other distribution of our assets to holders of shares of our common stock, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property, options, evidence of indebtedness or any other assets by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) or we grant, issue or sell any options, convertible securities or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of common stock (in each case, "Distributed Property"), then each holder of a warrant shall be entitled to acquire, with respect to the shares of common stock issuable upon exercise of such warrant, the Distributed Property that such holder would have been entitled to receive had the holder been the record holder of such number of shares of common stock issuable upon exercise of the warrant immediately prior to the record date for such Distributed Property.

So long as any of the warrants remain outstanding, we are required to maintain a number of authorized and unreserved shares of common stock equal to at least 100% of the maximum number of shares of common stock issuable upon the exercise of all of the warrants then outstanding. If we fail to maintain such a number of authorized and unreserved shares of common stock, we must take all necessary action to increase our authorized shares of common stock to an amount sufficient to allow the immediate exercise of the warrants then outstanding, in accordance with the requirements of our certificate of incorporation, bylaws and applicable law, including holding a meeting of our stockholders in order to approve an increase in the number of authorized shares of our common stock within 90 days after such failure.

No fractional shares will be issued upon exercise of the warrants. Except as set forth in the respective warrants, the warrants do not confer upon holders any voting or other rights as stockholders of the Company.

A holder (together with its affiliates) may not exercise any portion of the warrant to the extent that the holder would beneficially own more than 4.99% of our outstanding common stock after exercise. The holder may increase or decrease this beneficial ownership limitation to any other percentage not in excess of 9.99%, upon, in the case of an increase, not less than 61 days' prior written notice to us.

Common Stock

The material terms and provisions of our common stock are described under the caption "Description of Capital Stock" starting on page 11 of the accompanying prospectus.

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PRICE RANGE OF COMMON STOCK

Our common stock is traded on the NASDAQ Capital Market under the symbol "PLUG." The following table sets forth the high and low sale price per share of our common stock as reported by the NASDAQ Capital Market for the periods indicated:

	Sales prices		
	High]	Low
Year ended December 31, 2016			
1st Quarter	\$ 2.25	\$	1.30
2nd Quarter	\$ 2.28	\$	1.60
3rd Quarter	\$ 1.95	\$	1.34
4th Quarter (through December 16, 2016)	\$ 1.76	\$	1.18
Year ended December 31, 2015			
1st Quarter	\$ 3.38	\$	2.42
2nd Quarter	\$ 2.85	\$	2.32
3rd Quarter	\$ 2.85	\$	1.56
4th Quarter	\$ 2.98	\$	1.76
Year ended December 31, 2014			
1st Quarter	\$ 11.72	\$	1.89
2nd Quarter	\$ 8.37	\$	3.62
3rd Quarter	\$ 6.47	\$	4.00
4th Quarter	\$ 5.48	\$	2.60

As of November 30, 2016, there were approximately 616 record holders of our common stock. However, management believes that a significant number of shares are held by brokers under a "nominee name" and that the number of beneficial shareholders of our common stock exceeds 100,410.

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DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. Any future determination as to the payment of dividends will depend upon capital requirements and limitations imposed by our credit agreements, if any, and such other factors as our board of directors may consider.

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CAPITALIZATION

The following table sets forth our unaudited cash and cash equivalents and capitalization as of September 30, 2016:

on an actual basis:

on an as-adjusted basis to give effect to our sale in this offering of shares of Series D convertible preferred stock and warrants to purchase shares of common stock at \$ per combination and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

You should read this table in conjunction with "Use of Proceeds" as well as our "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements, including the related notes, incorporated by reference into the accompanying prospectus from our annual report on Form 10-K for the fiscal year ended December 31, 2015 and our subsequent quarterly reports on Form 10-Q, and incorporated by reference herein.

	As of September 30, 2016		
	Actual As Adjusted (unaudited)		
	((in thousands, except share and per	
Unrestricted each and each equivalents	\$	share 42,486	data) \$
Unrestricted cash and cash equivalents Redeemable preferred stock:	Ф	42,480	ф
Series C redeemable preferred stock, par value \$0.01 (aggregate involuntary liquidation preference			
\$16,664) 10,431 shares authorized, 5,231 issued and outstanding actual and as adjusted	\$	1,153	
Stockholders' equity:	Ψ	1,133	
Common Stock, par value \$0.01; 450,000,000 shares authorized; 181,009,135 shares issued and			
180,431,759 outstanding, actual; shares issued and outstanding, as adjusted	\$	1,810	
Series D Convertible Preferred Stock, par value \$0.01; 0 shares authorized; 0 shares issued and	-	2,020	
outstanding, actual; shares authorized and issued and outstanding, as adjusted			
Additional paid-in capital	\$	1,126,007	
Accumulated other comprehensive income	\$	1,115	
Accumulated deficit	\$	(1,032,230)	
Less common stock in treasury 577,376 shares	\$	(3,084)	
Total stockholders' equity	\$	93,618	
Total capitalization(1)	\$	149,481	\$

⁽¹⁾ Total capitalization represents the sum of total stockholders' equity, long-term debt and capital lease obligations.

The foregoing table and discussion are based on 180,431,759 shares of common stock outstanding as of September 30, 2016, assumes no conversion or exercise of the warrants offered hereby, and excludes:

14,982,570 shares of common stock issuable upon the exercise of stock options outstanding as of September 30, 2016, at a weighted average exercise price of \$2.87 per share;

1,057,877 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2016;

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577,376 shares of common stock in treasury;

26,667 shares of common stock issuable upon the vesting of restricted stock units;

5,554,594 shares of common stock issuable upon conversion of our Series C Redeemable Convertible Preferred Stock at a conversion price of \$0.2343 per share;

4,000,100 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2016, at a weighted average exercise price of \$4.00 per share. With respect to 4,000,000 of such shares underlying such warrants, an issuance of securities by us at a price below \$4.00 per share results in the adjustment of the exercise price of such warrants to be equal to issuance price of such securities, which, as measured in accordance with the terms of such warrants, is expected to result in an exercise price of less than \$1.00 per share, and may be significantly less than \$1.00 per share; and

shares of common stock and shares of common stock issuable upon exercise of warrants that we are simultaneously offering in our Common Offering. See "Summary Recent Developments" for more information.

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UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated the date of this prospectus supplement, Oppenheimer & Co., as underwriter of this offering, has agreed to purchase, and we have agreed to sell to it, all of the shares and warrants offered hereby.

Oppenheimer & Co. is referred to as the "underwriter." The underwriter is offering the shares of Series D convertible preferred stock and corresponding warrants to purchase common stock subject to its acceptance of the shares and warrants from us and subject to prior sale. The underwriting agreement provides that the obligation of the underwriter to pay for and accept delivery of the shares of Series D convertible preferred stock and warrants offered by this prospectus supplement is subject to the approval of certain legal matters by its counsel and to certain other conditions. The underwriter is obligated to take and pay for all of the shares of Series D convertible preferred stock and warrants to purchase common stock offered by this prospectus supplement if any such shares and warrants are taken.

The underwriter initially proposes to offer the shares of Series D convertible preferred stock and warrants to purchase common stock directly to the public at the offering price listed on the cover page of this prospectus supplement. After the initial offering of the shares of Series D convertible preferred stock and warrants, the offering price and other selling terms may from time to time be varied by the underwriter.

The following table shows the per combination and total public offering price, underwriting discounts and commissions, and proceeds before expenses to us.

	Per	
	Combination	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds, before expenses, to us	\$	\$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$. We have agreed to reimburse the underwriter for its legal fees in connection with this offering and the Common Offering.

Our common stock is listed on the NASDAQ Capital Market under the trading symbol "PLUG".

We and all of our directors and officers have agreed that, without the prior written consent of Oppenheimer & Co., we and they will not, during the period ending 90 days after the date of this prospectus supplement (the "restricted period"):

offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend or otherwise transfer or dispose of, directly or indirectly, any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;

file any registration statement with the Securities and Exchange Commission relating to the offering of any shares of common stock or any securities convertible into or exercisable or exchangeable for common stock; or

enter into any swap or other arrangement that transfers to another, in whole or in part, any of the economic consequences of ownership of the common stock.

whether any such transaction described above is to be settled by delivery of common stock or such other securities, in cash or otherwise. In addition, we and each such person agrees that, without the

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prior written consent of Oppenheimer & Co., we or such other person will not, during the restricted period, make any demand for, or exercise any right with respect to, the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for common stock

With respect to us, the restrictions described in the immediately preceding paragraph, among other things and subject to exceptions, do not apply to:

the shares and warrants (and shares underlying such warrants) to be sold pursuant to this offering and the Common Offering, including the issuance of common stock upon the conversion or redemption (in accordance with the terms thereof) of the Series D convertible preferred stock sold pursuant to this offering;

the issuance by us of shares of common stock upon the exercise or settlement of any securities sold pursuant to the Common Offering or any option, warrant or restricted stock unit outstanding on the date of this prospectus supplement and described herein, or upon the conversion of our Series C Preferred Stock outstanding on the date of this prospectus supplement and described herein:

the issuance of common stock, options to acquire common stock or restricted stock units pursuant to our stock option plans or other employee compensation plans as such plans are in existence on the date of this prospectus supplement and described herein;

issuances of common stock as matching contributions under our 401(k) plan;

the filing of a registration statement on Form S-8 relating to any employee benefit plan;

the issuance of securities as payment in satisfaction of accrued dividends payable upon the Series C Preferred Stock; or

the establishment of a trading plan pursuant to Rule 10b5-1 under the Exchange Act, for the transfer of shares of common stock, *provided* that (i) such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by us regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period.

With respect to the parties to the lock-up agreements, the restrictions described above, among other things and subject to exceptions, do not apply to:

transactions relating to shares of common stock or other securities acquired in open market transactions after the completion of this offering, *provided* that no filing under Section 16(a) of the Exchange Act shall be required or shall be voluntarily made in connection with subsequent sales of common stock or other securities acquired in such open market transactions;

transfers of shares of common stock or any security convertible into common stock as a bona fide gift or by will or intestate succession upon the death of the relevant party to the agreement;

distributions of shares of common stock or any security convertible into common stock to limited partners, members, owners or shareholders of the undersigned;

the receipt from us of shares of common stock upon the exercise of options, warrants, restricted stock units or other equity awards, *provided* that any shares of common stock received pursuant to this exception shall be subject to the restrictions on transferability set forth above;

dispositions or transfers of securities exercisable for shares of common stock solely in connection with the "cashless" exercise of options and warrants outstanding on the date of this prospectus supplement and described herein, *provided* that (x) any shares of common stock received upon the

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exercise of any options or warrants pursuant to this exception shall be subject to the restrictions on transferability set forth above and (y) if the signing party is required to file a report under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of shares of common stock during the restricted period due to any disposition or transfer pursuant to this exception, such party shall include a statement in such report to the effect that the disposition or transfer was made in connection with the exercise of an option or warrant and that the underlying shares of common stock issued upon such exercise remain subject to the terms of the lock-up agreement;

if the party is a corporation, partnership, limited liability company or other business entity, any transfer of shares of common stock or other securities convertible into or exercisable or exchangeable for common stock owned pursuant to a stock sale, merger, consolidation or other similar transaction involving the sale or transfer of all or substantially all of such party's assets to a bona fide third party purchaser that is not any entity that controls, is controlled by or is under common control with the party to the lock-up agreement, provided that (i) such transfer may not be undertaken for the purpose of avoiding the restrictions imposed by the lock-up agreements (ii) any transferee shall sign and deliver a lock-up letter substantially in the form of the lock-up agreement and (iii) if the foregoing transaction is not consummated, the shares of common stock or other securities will remain subject to the restrictions on transferability contained in the lock-up agreement;

if the party is a corporation, partnership, limited liability company or other business entity, any transfer made by the party to another corporation, partnership, limited liability company or other business entity that controls, is controlled by or under common control of the party and such transfer is not for value; or

the establishment of trading plans pursuant to Rule 10b5-1 under the Exchange Act for the transfer of shares of common stock, *provided* that (i) in the case of trading plans established after the date of this prospectus supplement, such plan does not provide for the transfer of common stock during the restricted period and (ii) to the extent a public announcement or filing under the Exchange Act, if any, is required of or voluntarily made by or on behalf of the undersigned or the Company regarding the establishment of such plan, such announcement or filing shall include a statement to the effect that no transfer of common stock may be made under such plan during the restricted period,

provided that in the case of any transfer or distribution pursuant to the second, third and seventh bullets above, it will be a condition of the transfer or distribution, as the case may be, that (i) each transferee, done or distributee shall sign and deliver a lock-up letter substantially in the form of the lock-up agreement and (ii) no filing under Section 16(a) of the Exchange Act, reporting a reduction in beneficial ownership of shares of common stock, shall be required or shall be voluntarily made during the restricted period.

Oppenheimer & Co., in its sole discretion, may release the common stock and other securities subject to the lock-up agreements described above in whole or in part at any time with or without notice.

In order to facilitate this offering, the underwriter may engage in transactions that stabilize, maintain or otherwise affect the price of the common stock. Specifically, the underwriter may sell more shares and warrants than it is obligated to purchase under the underwriting agreement, creating a short position. The underwriter must close out any short position by purchasing shares and warrants in the open market. A short position is more likely to be created if the underwriter is concerned that there may be downward pressure on the price of the common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriter may bid for, and purchase, shares of common stock in the open market to

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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.

We and the underwriter have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act.

A prospectus in electronic format may be made available on the websites maintained by the underwriter or selling group members, if any, participating in this offering and the underwriter may distribute prospectuses electronically. The underwriter may agree to allocate a number of securities to selling group members for sale to their online brokerage account holders. Internet distributions will be allocated by the underwriter and selling group members that will make internet distributions on the same basis as other allocations. Other than the prospectus in electronic format, the information on these websites is not part of this prospectus or the registration statement of which this prospectus forms a part, has not been approved or endorsed by us or the underwriter in its capacity as underwriter, and should not be relied upon by investors.

The underwriter and certain of its affiliates have in the past provided, are currently providing or may in the future from time to time provide, investment banking and other financing, trading, banking, research, transfer agent and trustee services to the Company, for which they have in the past received, and may currently or in the future receive, customary fees and expenses.

Selling Restrictions

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a "Relevant Member State") an offer to the public of any shares of our Series D convertible preferred stock and warrants may not be made in that Relevant Member State, except that an offer to the public in that Relevant Member State of any shares of our Series D convertible preferred stock and warrants may be made at any time under the following exemptions under the Prospectus Directive, if they have been implemented in that Relevant Member State:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;
- (b)
 to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending
 Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted
 under the Prospectus Directive, subject to obtaining the prior consent of the underwriter for any such offer; or
- in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of shares of our Series D convertible preferred stock and warrants shall result in a requirement for the publication by us or the underwriter of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an "offer to the public" in relation to any shares of our Series D convertible preferred stock and warrants in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and any shares of our Series D convertible preferred stock and warrants to be offered so as to enable an investor to decide to purchase any shares of our Series D convertible preferred stock and warrants, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State, the expression "Prospectus Directive" means Directive 2003/71/EC (and

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amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State, and the expression "2010 PD Amending Directive" means Directive 2010/73/EU.

United Kingdom

The underwriter has represented and agreed that:

- it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 ("FSMA") received by it in connection with the issue or sale of the shares of our Series D convertible preferred stock and warrants in circumstances in which Section 21(1) of the FSMA does not apply to us; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares of our common stock in, from or otherwise involving the United Kingdom.

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MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS FOR U.S. HOLDERS

The following is a summary of the material U.S. federal income tax consequences of the ownership and disposition of preferred stock, warrants and common stock by "U.S. Holders" (as defined below), who purchase units in connection with this initial issuance, but does not purport to be a complete analysis of all the potential tax considerations relating thereto. This summary is based upon the provisions of the Internal Revenue Code of 1986, as amended, or the Code, Treasury regulations promulgated thereunder, administrative rulings and judicial decisions, all as of the date hereof. These authorities may be changed or subject to differing interpretations, possibly with retroactive effect, so as to result in U.S. federal income tax consequences different from those set forth below. We have not sought any ruling from the Internal Revenue Service, or the IRS, with respect to the statements made and the conclusions reached in the following summary, and there can be no assurance that the IRS will agree with such statements and conclusions.

This summary also does not address the tax considerations arising under the laws of any U.S. state or local or any non-U.S. jurisdiction, the Medicare tax on net investment income or any alternative minimum tax consequences. In addition, this discussion does not address tax considerations applicable to an investor's particular circumstances or to investors that may be subject to special tax rules, including, without limitation:

banks, insurance companies or other financial institutions;
tax-exempt organizations;
dealers in securities or currencies;
traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
persons that own, or are deemed to own, more than five percent of our capital stock;
certain former citizens or long-term residents of the United States;
persons who hold our preferred stock, warrants or common stock as a position in a hedging transaction, "straddle," "conversion transaction" or other risk reduction transaction;
persons who do not hold our preferred stock, warrants or common stock as capital assets within the meaning of Section 1221 of the Code (generally, for investment purposes);
persons deemed to sell our preferred stock, warrants or common stock under the constructive sale provisions of the Code;
regulated investment companies;
pension plans;
persons that acquire our preferred stock, warrants or common stock through the exercise of employee stock options or otherwise as compensation for services; or

persons other than U.S. Holders (as defined below).

In addition, this discussion does not address the tax treatment of partnerships or other entities that are pass-through entities for U.S. federal income tax purposes or persons that hold their preferred stock, warrants or common stock through partnerships or other pass-through entities. Accordingly, partnerships or other pass-through entities that hold our preferred stock, warrants, or common stock and partners in such partnerships or pass-through entities, should consult their tax advisors.

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For purposes of this discussion, the term "U.S. Holder" means a beneficial owner of preferred stock, warrants or common stock that is for U.S. federal income tax purposes (i) an individual who is a citizen or resident of the United States, (ii) a corporation (or other entity treated as a corporation) created or organized in the United States or under the laws of the United States or of any state thereof or the District of Columbia, (iii) an estate, the income of which is subject to U.S. federal income tax regardless of its source, (iv) or a trust if (1) a court within the United States can exercise primary supervision over the trust's administration and one or more U.S. persons have the authority to control all of the trust's substantial decisions or (2) the trust has a valid election in effect under applicable U.S. Treasury Regulations to be treated as a U.S. person.

You are urged to consult your tax advisor with respect to the application of the U.S. federal income tax laws to your particular situation, as well as any tax consequences of the purchase, ownership and disposition of our preferred stock, warrants or common stock arising under the U.S. federal estate or gift tax rules or under the laws of any U.S. state or local or any non-U.S. or other taxing jurisdiction or under any applicable tax treaty.

Tax Classification of a Unit

We intend to treat the preferred stock as equity and not as debt and to treat each unit for U.S. federal income tax purposes as a unit consisting of one share of preferred stock and one warrant to purchase shares of our common stock. Pursuant to this treatment, each holder of a unit must allocate the purchase price paid by such holder for such unit between the preferred stock and the warrants based on their respective relative fair market values. In addition, pursuant to this treatment, a holder's initial tax basis in the preferred stock and the warrants included in each unit should equal the portion of the purchase price of the unit allocated thereto.

Our view of the characterization of the units and the tax treatment of the preferred stock (described below) and a U.S. Holder's purchase price allocation are not, however, binding on the IRS or the courts. Because there are no authorities that directly address instruments that are similar to the units, no assurance can be given that the IRS or the courts will agree with the characterization described above or the discussion below. Accordingly, prospective investors are urged to consult their own tax advisors regarding the U.S. federal tax consequences of an investment in a unit (including alternative characterizations of a unit and the preferred stock) and with respect to any tax consequences arising under the laws of any state, local or non-United States taxing jurisdiction. Unless otherwise stated, the following discussions are based on the assumption that the characterization of the units and the preferred stock, and the allocation described above are accepted for U.S. federal income tax purposes.

Exercise of Warrants

Subject to the discussion below with respect to a cashless exercise of a warrant, a U.S. Holder generally will not be required to recognize taxable gain or loss upon the exercise of a warrant. Such U.S. Holder's adjusted tax basis in our common stock received by such holder generally will be an amount equal to the sum of the U.S. Holder's initial investment in the warrant (i.e., the portion of the U.S. Holder's purchase price for a unit that is allocated to the warrant, as described above under " Tax Classification of a Unit") and the exercise price (i.e., the exercise price of \$ for each warrant). The holding period for our common stock received pursuant to the exercise of a warrant will begin on the date following the date of exercise and will not include the period during which the U.S. Holder held the warrant.

The tax treatment of a cashless exercise of a warrant (i.e., where a portion of the holder's warrants are surrendered (the "Surrendered Warrants") as the exercise price for other warrants to be exercised (the

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"Exercised Warrants") as described above under "Description of Securities Warrants") is uncertain. Although the matter is not free from doubt, we intend to treat a cashless exercise as a tax-free transaction in which a holder's tax basis in the common stock received would equal the sum of the U.S. Holder's tax basis in the Surrendered Warrants and the Exercised Warrants. It is also possible, however, that a cashless exercise could be treated as a taxable transaction, and a U.S. Holder could recognize taxable gain or loss in an amount equal to the difference between the exercise price deemed paid and such U.S. Holder's tax basis in the Surrendered Warrants. In this case, a U.S. Holder's tax basis in the common stock received should equal the sum of the exercise price deemed paid and the U.S. Holder's tax basis in the warrants exercised.

The holding period for common stock acquired in a cashless exercise will depend on the U.S. federal income tax treatment of a cashless exercise. The holding period for a share of common stock acquired in a cashless exercise would include the holding period of the Surrendered and Exercised warrants if the cashless exercise is treated as a tax-free transaction. The holding period for a share of common stock acquired in a cashless exercise would begin on the day following the date of exercise if the cashless exercise is treated as a taxable exchange or treated similarly to a cash exercise (even if otherwise a tax-free transaction). Due to the absence of authority on the U.S. federal income tax treatment of a cashless exercise, there can be no assurance which, if any, of the alternative tax consequences and holding periods described above would be adopted by the IRS or a court of law. Accordingly, holders are urged to consult their tax advisors as to the tax consequences of a cashless exercise.

Lapse of Warrants

If a warrant is allowed to lapse unexercised, a U.S. Holder will generally recognize a capital loss in an amount equal to its tax basis in the warrant. Such loss will be long-term capital loss if the warrant has been held for more than one year as of the date the warrant lapsed. The deductibility of capital losses is subject to limitations.

Certain Adjustments to Warrants

Under Section 305 of the Code, an adjustment to the number of shares of common stock that will be issued on the exercise of the warrants, or an adjustment to the exercise price of the warrants, may be treated as a constructive distribution to a U.S. Holder of the warrants if, and to the extent that, such adjustment has the effect of increasing such U.S. Holder's proportionate interest in our "earnings and profits" or assets, depending on the circumstances of such adjustment (for example, if such adjustment is to compensate for a distribution of cash or other property to our shareholders). Adjustments to the exercise price of a warrant made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing dilution of the interest of the holders of the warrants should generally not result in a constructive distribution.

Deemed and Actual Distributions on Our Preferred and Common Stock

Because the face amount of the preferred stock will exceed the purchase price for the preferred stock (including because of any unit purchase price allocated to the warrants), the preferred stock will be issued at a discount for U.S. federal income tax purposes. We intend to treat such excess of the face amount over the purchase price as a distribution that must generally be taken into income as such excess accrues, in accordance with a constant yield method (a "deemed distribution"). Accordingly, you could be considered to have received distributions taxable as dividends to the extent of our earnings and profits even though you did not receive any cash or property.

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In general, distributions, if any, paid on our preferred stock (including deemed distributions) and on our common stock, to a U.S. Holder will constitute dividends for U.S. federal income tax purposes to the extent paid from current and accumulated earnings and profits, as determined for U.S. federal income tax purposes. Deemed dividends not paid in cash should increase tax basis in the preferred stock. Dividends received by certain non-corporate U.S. Holders (including individuals) may be eligible for taxation at preferential rates provided certain holding period and other requirements are satisfied. Dividends received by corporate U.S. Holders of our common stock generally will be eligible for the dividends-received deduction so long as certain holding period and other requirements are satisfied.

Amounts not treated as dividends for U.S. federal income tax purposes will constitute a return of capital and to the extent paid in cash will first reduce a U.S. Holder's adjusted tax basis in our preferred stock or common stock, but not below zero. Any excess will be treated as capital gain from the sale of our preferred stock or common stock in the manner described under "Gain on Sale or Other Disposition of Our Preferred Stock, Warrants and Common Stock" below.

Conversion of Preferred Stock in Exchange for Common Stock

You generally should not recognize gain or loss by reason of receiving common stock in exchange for convertible preferred stock upon conversion of the convertible preferred stock except gain or loss will be recognized with respect to the fair market value of any shares of common stock attributable to dividend arrearages, which generally will be treated as a constructive dividend upon exchange (to the extent not otherwise previously taken into account as a deemed dividend) and would subject to the tax treatment of a dividend as described above under "Deemed and Actual Distributions on Our Preferred and Common Stock". The adjusted tax basis of the common stock acquired upon conversion will be equal to the adjusted tax basis of the shares of convertible preferred stock exchanged, and the holding period of the common stock received will include the holding period of the convertible preferred stock exchanged. The adjusted tax basis of any common stock treated as a constructive dividend will be equal to its fair market value on the date of the exchange, and the holding period of such stock will commence on the day after such exchange.

Because payments of common stock in respect of dividends arrearages will not give rise to any cash from which any applicable withholding tax could be satisfied, if we pay backup withholding on behalf of a holder (because such holder failed to establish an exemption from backup withholding), we may, at our option, set off such payments against shares of common stock payable to such holder or against current or subsequent payments of cash otherwise due from us to the holder.

Adjustment of Conversion Price.

Holders of convertible preferred stock may, in certain circumstances, be deemed to have received constructive distributions of stock if the conversion rate for the convertible preferred stock is adjusted. Adjustments to the conversion price made pursuant to a bona fide reasonable adjustment formula that has the effect of preventing the dilution of the interest of the holders of the convertible preferred stock, however, generally will not be considered to result in a constructive distribution of stock. If adjustments that do not qualify as being pursuant to a bona fide reasonable adjustment formula are made, or certain adjustments are not made, and have the effect of increasing the holders' proportionate interest in our assets or earning and profits, such holders generally will be deemed to have received constructive distributions includable in such holder's income in amounts based upon the value of such holders' increased interests in our equity resulting from such adjustments. The amount of the distribution will be treated as a distribution to a holder with the tax consequences specified above under "Deemed and Actual Distributions on Our Common and Preferred Stock." Accordingly, you

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could be considered to have received distributions taxable as dividends to the extent of our earnings and profits even though you did not receive any cash or property as a result of such adjustments.

Gain on Sale or Other Disposition of Preferred Stock, Warrants and Common Stock

Upon the sale, certain qualifying redemptions, or other taxable disposition of shares of our preferred stock, common stock or a sale or other taxable disposition of the warrants, a U.S. Holder generally will recognize gain or loss equal to the difference, if any, between (i) the amount of cash and the fair market value of any property received upon such taxable disposition and (ii) the U.S. Holder's adjusted tax basis in the preferred stock, warrants or common stock sold or otherwise disposed of. Such capital gain or loss will be long-term capital gain or loss if a U.S. Holder's holding period in the shares of preferred stock, warrants or common stock, as applicable, is more than one year at the time of the taxable disposition, except gain or loss will be recognized with respect to the fair market value of any shares of common stock attributable to dividend arrearages, which generally will be treated as a constructive dividend (to the extent not otherwise previously taken into account as a deemed dividend) and would subject to the tax treatment of a dividend as described above under "Deemed and Actual Distributions on Our Preferred and Common Stock". Long-term capital gains recognized by certain non-corporate U.S. Holders (including individuals) may be eligible for taxation at preferential rates. Deductions for capital losses are subject to limitations under the Code.

Redemptions.

If a redemption satisfies certain tests provided in Section 302(b) of the Code, the redemption would be treated as a sale of the convertible preferred stock, with similar tax consequences to a sale as described above under "Gain on Sale or Other Disposition of Preferred Stock, Common Stock or Warrants". The redemption will satisfy such tests if it (i) is "substantially disproportionate" with respect to the holder's interest in our stock, (ii) results in a "complete termination" of the holder's interest in all our classes of stock, or (iii) is "not essentially equivalent to a dividend" with respect to the holder, all within the meaning of Section 302(b) of the Code.

In determining whether any of the tests under Section 302(b) has been met, stock considered to be owned by the holder by reason of certain constructive ownership rules described in the Code (including rules that would treat warrants as having been exercised), as well as stock actually owned, generally must be taken into account. Because the determination as to whether any of the three alternative tests of Section 302(b) will be satisfied with respect to any particular holder of the convertible preferred stock depends upon the facts and circumstances of the holder at the time that the determination must be made, you are advised to consult your own tax advisors to determine such tax treatment.

If a redemption of the convertible preferred stock does not meet any of the tests under Section 302(b), the redemption proceeds will be treated as a distribution, with the tax consequences described under "Deemed and Actual Distributions on Our Preferred and Common Stock." above. In such a case, a stockholder's adjusted tax basis in the redeemed preferred stock will be transferred to such stockholder's remaining stock holdings in the Company. If the stockholder does not retain any of our stock, such basis could be transferred to a related person that holds our stock or it may be lost.

Backup Withholding and Information Reporting

Unless U.S. Holders are exempt recipients, such as corporations and tax exempt organizations, information reporting and backup withholding may apply with respect to payments of dividends (including constructive distributions) on our preferred stock, warrants and common stock and to certain payments of proceeds on the sale or other disposition of our preferred stock warrants and common

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stock if U.S. Holders fail to supply accurate taxpayer identification numbers or otherwise fail to comply with applicable U.S. information reporting or certification requirements. The current backup withholding rate is 28%.

Backup withholding is not an additional tax; rather, the U.S. income tax liability of persons subject to backup withholding will be reduced by the amount of tax withheld. If withholding results in an overpayment of taxes, a refund or credit may generally be obtained from the IRS, provided that the required information is furnished to the IRS in a timely manner.

The preceding discussion of U.S. federal tax considerations is for general information only. It is not tax advice. Each prospective investor should consult its own tax advisor regarding the particular U.S. federal, state and local and non-U.S. tax consequences of purchasing, holding and disposing of our preferred stock, warrants, or common stock including the consequences of any proposed change in applicable laws.

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LEGAL MATTERS

Certain legal matters with respect to the securities offered by this prospectus supplement will be passed upon for us by Goodwin Procter LLP, Boston, Massachusetts. Certain legal matters will be passed upon for the underwriter by Milbank, Tweed, Hadley & McCloy LLP, New York, New York.

EXPERTS

The consolidated financial statements of Plug Power Inc. and subsidiaries as of December 31, 2015 and 2014, and for each of the years in the three-year period ended December 31, 2015, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 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.

The audit report contains an explanatory paragraph that states that the scope of management's assessment of internal control over financial reporting excluded the internal control over financial reporting of HyPulsion U.S. Holding, Inc. ("HyPulsion"), which the Company acquired in July 2015. HyPulsion represented 7.3% of total assets and 0.3% of total revenue included in the Company's consolidated financial statements as of and for the year ended December 31, 2015. KPMG LLP's audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of HyPulsion.

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Exhibit A

CERTIFICATE OF DESIGNATIONS OF SERIES D CONVERTIBLE PREFERRED STOCK OF PLUG POWER INC.

Plug Power 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 Amended and Restated Certificate of Incorporation, as amended (the "Certificate of Incorporation"), and Section 151(g) of the DGCL, the Board on , 2016 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 () 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 this Company, 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 [] 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 30 below.
- 2. Ranking. Except with respect to the Company's Series C Redeemable Convertible Preferred Stock (the "Series C 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, and 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 18, all 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"). The rights of all such shares of capital stock of the Company 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 separate 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 consolidati

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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*. From and after the first date of issuance of any Preferred Shares (the "**Initial Issuance Date**"), no holder of a Preferred Share (each, a "**Holder**" and collectively, the "**Holders**") shall be entitled to receive any dividends ("**Dividends**") except in accordance with Section 7 or Section 17 below or, otherwise, to the extent, if any, as may be declared by the Board on the Preferred Shares, 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.
- 4. *Conversion.* At any time after the Initial Issuance Date, 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), at any time or times on or after the Initial Issuance Date, 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 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.
- (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 25(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,], subject to adjustment as provided herein.
- (c) Mechanics of Conversion. The conversion of each Preferred Share shall be conducted in the following manner:
 - (i) Optional Conversion. To convert a Preferred Share into shares of Common Stock on any date (a "Conversion Date"), a Holder shall deliver (via facsimile or electronic mail), for receipt on or prior to 11:59 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 three (3) 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 20(b)). On or before the first (1st) Trading Day following the date of receipt of a Conversion Notice, the Company shall transmit by facsimile or 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

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(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 third (3rd) Trading Day following the date of receipt of a Conversion Notice (or such earlier date as required pursuant to the 1934 Act or other applicable law, rule or regulation for the settlement of a trade 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 three (3) 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 20(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 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 three (3) 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

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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 Conversion Date.

(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 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 20, 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, such records of the Company establishing the number of Preferred Shares to which the record holder is entitled shall be controlling and determinative in the absence of manifest error. 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 20 below (or delivers a lost certificate affidavit to the Company, if applicable, pursuant to Section 20(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

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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 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.

(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 9.99% (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, including the 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

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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 one (1) Business Day 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 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. 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.

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(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, plus an additional shares of Common Stock, would exceed the aggregate number of shares of Common Stock which the Company may issue upon exercise or conversion (as the case may be) of the Preferred Shares without breaching the Company's obligations under Rule 5635(d) of the listing rules of the Nasdaq Stock Market (the number of shares which may be issued without violating such rule, 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 Nasdaq Capital Market for issuances of shares of Common Stock in excess of such amount. Until such approval or such written opinion 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 the 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 of Preferred Shares 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, 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 sum of (i) 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 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 Exchange Cap Shares, any brokerage commissions and other out-of-pocket expenses, if any, of such Holder incurred in connection therewith.

(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 (defined below in Section 5(a)) and ending on the earlier to occur of (x) the date of the cure of such Triggering Event and (y) twenty (20) Trading Days after the date the Company delivers written notice to the 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 an "**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)

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(with "Triggering Event Conversion Price" replacing "Conversion Price" for all purposes hereunder with respect to such Triggering Event Conversion and "Redemption Premium of the 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).

(f) Mandatory Conversion.

(i) General. If at any time (i) the Closing Sale Price of the Common Stock listed on the Principal Market equals at least 200% of the Conversion Price for twenty (20) consecutive Trading Days (each, a "Mandatory Conversion Measuring Period"), and (ii) no Equity Conditions Failure then exists, the Company shall have the right to require each Holder to convert all, or any number, of the Preferred Shares, as designated in the Mandatory Conversion Notice (as defined below) into fully paid, validly issued and nonassessable shares of Common Stock in accordance with Section 4(c) hereof at the Conversion Rate as of the Mandatory Conversion Date (as defined below) (a "Mandatory Conversion"). The Company may exercise its right to require conversion under this Section 4(f) by delivering within five (5) Trading Days following the end of such Mandatory Conversion Measuring Period a written notice thereof by electronic mail and overnight courier to all, but not less than all, of the Holders and the Transfer Agent (the "Mandatory Conversion Notice" and the date all of the Holders received such notice by electronic mail is referred to as the "Mandatory Conversion Notice Date"). The Mandatory Conversion Notice shall be irrevocable. The Mandatory Conversion Notice shall state (i) the Trading Day selected for the Mandatory Conversion in accordance with this Section 4(f), which Trading Day shall be no less than two (2) Trading Days and no more than fifteen (15) Trading Days following the Mandatory Conversion Notice Date (the "Mandatory Conversion Date"), (ii) the aggregate number of the Preferred Shares subject to mandatory conversion from each Holder pursuant to this Section 4(f), (iii) the number of shares of Common Stock to be issued to such Holder on the Mandatory Conversion Date and (iv) that there has been no Equity Conditions Failure. Notwithstanding the foregoing, the Company may effect only one (1) Mandatory Conversion during any twenty (20) consecutive Trading Days. Notwithstanding anything herein to the contrary, (i) if the Closing Sale Price of the Common Stock listed on the Principal Market fails to exceed the Conversion Price by 200% for each Trading Day commencing on the Mandatory Conversion Notice Date and ending and including the Trading Day immediately prior to the applicable Mandatory Conversion Date (a "Mandatory Conversion Price Failure") or an Equity Conditions Failure occurs at any time prior to the Mandatory Conversion Date, (A) the Company shall provide each Holder a subsequent notice to that effect and (B) unless such Holder waives the applicable Equity Conditions Failure and/or Mandatory Conversion Price Failure, as applicable, the Mandatory Conversion shall be cancelled and the applicable Mandatory Conversion Notice of such Holder shall be null and void and (ii) at any time prior to the date of consummation of the Mandatory Conversion the Preferred Shares subject to such Mandatory Conversion may be converted, in whole or in part, by any Holder into shares of Common Stock pursuant to Section 4. Notwithstanding the foregoing, any Preferred Shares subject to a Mandatory Conversion may be converted by a Holder hereunder prior to the applicable Mandatory Conversion Date and such aggregate number of Preferred Shares converted hereunder on or after the Mandatory Conversion Notice Date and prior to such Mandatory Conversion Date shall reduce the aggregate number of Preferred Shares of such Holder required to be converted on such Mandatory Conversion Date. For the avoidance of doubt, the Company

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shall have no right to effect a Mandatory Conversion if any Triggering Event has occurred and continuing, but any Triggering Event shall have no effect upon any Holder's right to convert Preferred Shares in its discretion.

- (ii) *Pro Rata Conversion Requirement.* If the Company elects to cause a Mandatory Conversion of any Preferred Shares pursuant to this Section 4(f), then it must simultaneously take the same action in the same proportion with respect to all Holders of Preferred Shares.
- 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 under Rule 144 of the 1933 Act without restriction by any of the Holders;
 - (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) the Company's notice, written or oral, to any holder of Preferred Shares or Warrants, 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 exercise of any Warrants for Warrant Shares in accordance with the provisions of the Warrants or 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) at any time following the tenth (10th) consecutive day that a Holder's Authorized Share Allocation (as defined in Section 11(a) below) is less than the sum of (A) 120% 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) and (B) 100% of the number of shares of Common Stock that such Holder would then be entitled to receive upon exercise in full of such Holder's Warrants (without regard to any limitations on exercise set forth in the Warrants);
 - (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), or any other Transaction Document (in each case, whether or not permitted pursuant to the DGCL), except, in the case of a failure to pay Dividends and Late Charges when and as due, 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 or a Exercise Failure (as defined in the Warrants) by delivery of the required number of shares of Common Stock within five (5) Trading Days after the applicable Conversion Date or Exercise Date (as defined in the Warrants) (as the case may be) or (B) fails to remove any restrictive legend on any certificate or any shares of Common Stock issued to such Holder upon conversion or exercise (as the case may be) of any Preferred Shares or as and when required by this Certificate of Designations and/or the Warrants, as applicable, unless otherwise then prohibited by applicable federal securities laws, and any such failure remains uncured for at least five (5) Trading Days;
 - (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 Subsidiary and, if instituted against the Company or any Subsidiary by a third party, shall not be dismissed within sixty (60) days of their initiation;

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- (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) other than as specifically set forth in another clause of this Section 5(a), the Company or any Subsidiary breaches any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, 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;
- (xi) 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;
- (xii) any breach or failure in any respect by the Company to comply with any provision of Section 15(f) of this Certificate of Designations; or
- (xiii) any provision of any Transaction Document shall at any time for any reason (other than pursuant to the express terms thereof) 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 or any governmental authority having jurisdiction over any of them, seeking to establish the invalidity or unenforceability thereof.

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- (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 one (1) Business Day deliver written notice thereof via facsimile or 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) 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 product of (1) the Redemption Premium multiplied by (2) 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 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. Any redemption upon a Triggering Event shall not constitute an election of remedies by the applicable Holder or any other Holder, and all other rights and remedies of each Holder shall be preserved.
- (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, whether occurring prior to or following the Maturity Date, the

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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 or entity, 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 or any other Redemption Price, as applicable.

- 6. Rights Upon Fundamental Transactions.
- Assumption. The Company shall not enter into or be party to a Fundamental Transaction unless (i) the Successor Entity assumes in writing all of the obligations of the Company under this Certificate of Designations and the other Transaction Documents in accordance with the provisions of this Section 6(a) pursuant to written agreements in form and substance satisfactory to the Required Holders and approved by the Required Holders prior to such Fundamental Transaction, including agreements to deliver to each holder of Preferred Shares 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 dividend rate of the Preferred Shares held by the Holders and having similar ranking to the Preferred Shares, and satisfactory to the Required Holders and (ii) the Successor Entity (including its Parent Entity) is a publicly traded corporation whose shares of common stock are quoted on or listed for trading on an Eligible Market. 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 and the other Transaction Documents 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 and the other Transaction Documents 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(a) and 17, 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 the publicly traded 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, such 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.
- (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")

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Date"), but not prior to the public announcement of such Change of Control, the Company shall deliver written notice thereof via facsimile and overnight courier 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 Change of Control Redemption Premium multiplied by (y) the Conversion Amount being redeemed, (ii) the product of (x) the Change of Control Redemption Premium multiplied by (y) the product of (A) the Conversion Amount being redeemed multiplied by (B) 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 Change of Control Redemption Premium multiplied by (y) the product of (A) the Conversion Amount being redeemed multiplied by (B) the quotient of (I) 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 (II) 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

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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.

- 7. Rights Upon Issuance of Purchase Rights and Other Corporate Events.
- (a) 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 or substantially 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 (and beneficial ownership) to such extent) and such Purchase Right to such extent shall be held in abeyance for such Holder until 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), at which time or times such Holder shall be granted such right (and any Purchase Right granted, issued or sold on such limital 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.
- (b) 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 insure 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.

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- 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 17, 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 17, 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) *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 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.
- (c) Voluntary Adjustment by Company. The Company may at any time any Preferred Shares remain outstanding, with the prior written consent of the Required Holders, 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.
- General. On each applicable Installment Date, provided there has been no Equity Conditions Failure, the Company shall pay to each Holder of Preferred Shares 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 tenth (10th) 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 of Preferred Shares 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

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Amount"), which amounts when added together, must at least equal the entire applicable Installment Amount 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 or an Installment Conversion is not otherwise permitted under any other provision of this Certificate of Designations, 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: (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 125% 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 part of such unconverted Installment Conversion Amount shall thereafter be adjusted to equal the lesser of (A) the Installment Conversion Price as in effect on the date on which such Holder voided the Installment Conversion and (B) the Installment Conversion Price that would be in effect on the date on which such Holder delivers a Conversion Notice relating thereto as if such date was an Installment Date. 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

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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 taxes that may be payable with respect to the issuance and delivery of any shares of Common Stock in any Installment Conversion hereunder.

- (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 100% 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 of the date of such designation as if such date were an Installment Date). Conversions required by this Section 9(c) shall be made in accordance with the provisions of Section 4(c). 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 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 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 and (ii) the date that such Deferral Amount shall now be payable. Notwithstanding the foregoing, a Holder may not elect to effect any Deferral during an Installment Period if a Deferral has been consummated by such Holder in any two (2) prior Installment Periods.
- (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")

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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 either (x) in the aggregate, the aggregate number of Preferred Shares subject to Acceleration in such Installment Period exceeds 200% 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 300% of the Installment Amount (not including any Deferral Amounts or Acceleration Amounts)) or (y) Accelerations have been consummated in any two (2) prior Installment Periods.

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 or the other Transaction Documents, 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 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, the maximum number of shares of Common Stock as shall from time to time be necessary to effect the conversion of the Preferred Shares then outstanding (without regard to any limitations on conversion contained herein).

11. Authorized Shares.

(a) Reservation. So long as any Preferred Shares remain outstanding, the Company shall at all times reserve at least 140% of the number of shares of Common Stock as shall from time to time be necessary to effect the conversion, including without limitation, Installment Conversions, Triggering Event Conversion and Accelerations, of all of the Preferred Shares then outstanding (without regard to any limitations on conversions and assuming the Preferred Shares remain outstanding until the Maturity Date) (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 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 of Preferred Shares, pro rata based on the number of the Preferred Shares then held by the Holders.

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(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 ninety (90) days after the occurrence of such Authorized Share Failure, the Company shall hold a meeting of its stockholders for the approval of an increase in the number of authorized shares of Common Stock. 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. 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 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 greatest Closing Sale Price of the Common Stock on any Trading Day during the period commencing on the date such Holder delivers the applicable Conversion Notice with respect to such Authorized Failure Shares to the Company and ending on the date of such issuance and payment under this Section 11(b); 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 brokerage commissions and other out-of-pocket expenses, if any, of such Holder incurred in connection therewith.

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 five (5) 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 in cash on the applicable Maturity Redemption Date. 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 of the other Transaction Documents, 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 Transaction Document and, upon payment in full or conversion in accordance herewith, shall satisfy the Company's payment obligation under such other Transaction Document. 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 20) (or evidence of the creation of a new

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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 immediately return the applicable Preferred Share Certificate, or issue a new Preferred Share Certificate (in accordance with Section 20(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) the greater of (x) the Floor Price and (y) 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) the greater of (x) the Floor Price and (y) 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). 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 immediately, but no later than one (1) Business Day of its receipt thereof, forward to each other Holder by facsimile or 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 principal, interest and other 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 principal amount of the Preferred Shares submitted for redemption pursuant to such Redemption Notices received by the Company during such seven (7) Business Day period.
- 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 require the Company to redeem (a "Maturity Redemption") all or any number of Preferred Shares held by such Holder at a purchase price equal to 100% of the Conversion Amount of such Preferred Shares (the "Maturity Redemption Price") by delivery of written notice thereof (the "Maturity Redemption Notice") to the Company. The

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Maturity Redemption Notice shall state the date the Company is required to pay to such Holder such Maturity Redemption Price (the "Maturity Redemption Date"), which date shall be no earlier than ten (10) Business Days following the date of delivery of such Maturity Redemption Notice. Redemptions required by this Section 13 shall be made in accordance with the provisions of Section 12.

14. *Voting Rights.* Holders of Preferred Shares 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. 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) 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.
- (b) 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.
- (c) 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.
- (d) 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.
- (e) Maintenance of Insurance. The Company shall maintain, and cause each of its Significant Subsidiaries to maintain, insurance with responsible and reputable insurance companies or associations 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

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practice by companies in similar businesses similarly situated except as could not reasonably be expected to result in a Material Adverse Effect.

(f) 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, (i) issue any Preferred Shares (other than as contemplated by this Certificate of Designations) or (ii) issue any other securities that would cause a breach or default under this Certificate of Designations or the Warrants.
- (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 such Indebtedness the terms of which (a) permit such redemptions and payments in an aggregate amount equal to the lesser of (i) \$20,000,000 and (ii) the product of (A) 1.25 multiplied by (B) the aggregate Stated Value of the Preferred Shares outstanding as of the relevant measurement so long as no default or event of default has occurred and is continuing under such Indebtedness, or (b) prohibit such redemptions or payments solely if a default or event of default has occurred and is continuing under such Indebtedness, agreement, contract or understanding (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.
- 16. 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 (including the Series C Liquidation Amount) that is required to be paid to the Series C Preferred Stock (pursuant to the certificate of designations of the Series C Preferred Stock as in effect as of the Subscription Date) 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 (A) 125% of the Conversion Amount thereof on the date of such payment and (B) 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 of Preferred Shares 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 16. All the preferential amounts to be paid to the Holders under this Section 16 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 16 applies.

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- 17. 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 (and beneficial ownership) 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 Parties exceeding the Maximum Percentage, at which 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 17 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).
- 18. 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 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 2, pay dividends or make any other distribution on any shares of any Junior Stock; (f) issue any Preferred Shares other than as contemplated hereby; or (g) 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.
- 19. *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.
- 20. 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 20(d)) (or evidence of the transfer of such Book-Entry), registered as such

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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 20(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)(i) 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 20(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 20(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 20(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.
- (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 20(a) or Section 20(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.
- 21. Remedies, Characterizations, Other Obligations, Breaches and Injunctive Relief. The remedies provided in this Certificate of Designations shall be cumulative and in addition to all other remedies

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available under this Certificate of Designations and any of the other Transaction Documents, 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 and consequential damages for any failure by the Company to comply with the terms of this Certificate of Designations. The Company covenants to each Holder that there shall be no characterization concerning this instrument other than as expressly provided herein. 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 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.

- 22. 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 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, attorneys' fees and disbursements.
- 23. 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. Terms used in this Certificate of Designations and not otherwise defined herein, but defined in the other Transaction Documents, shall have the meanings ascribed to such terms on the Initial Issuance Date in such other Transaction Documents unless otherwise consented to in writing by the Required Holders.
- 24. 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 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. This Certificate of Designations shall be deemed to be jointly drafted by the Company and all Holders and shall not be construed against any Person as the drafter hereof. Notwithstanding the foregoing, nothing contained in this Section 24 shall permit any waiver of any provision of Section 4(d).

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- 25. Notices; Currency; Payments.
- (a) *Notices*. The Company shall provide each Holder of Preferred Shares 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; 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:

Plug Power Inc. 968 Albany Shaker Road Latham, New York 12110 Attention: Gerard L. Conway, Jr., General Counsel

Email: gconway@plugpower.com Facsimile: (518) 782-7884

with a copy to:

Goodwin Procter LLP 100 Northern Avenue Boston, Massachusetts 02210 Attention: Robert P. Whalen, Jr. Email: rwhalen@goodwinlaw.com Facsimile: (617) 801-8906

(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) immediately 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.

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- (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 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. 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 the Transaction Documents which is not paid 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 twelve percent (12%) per annum from the date such amount was due until the same is paid in full ("Late Charge").
- 26. 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. Each of the Company and the 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, to realize on any collateral or any other security for such obligations, or to enforce a judgment or other court ruling in favor of such Holder. THE COMPANY 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.
- 27. 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,

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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).

- 28. *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 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.
- 29. 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.
- 30. Certain Defined Terms. For purposes of this Certificate of Designations, the following terms shall have the following meanings:
- (a) "1933 Act" means the Securities Act of 1933, as amended, and the rules and regulations thereunder.
- (b) "1934 Act" means the Securities Exchange Act of 1934, as amended, and the rules and regulations thereunder.
- (c) "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.
- (d) "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.
- (e) "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

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foregoing is to subject collectively such Holder and all other Attribution Parties to the Maximum Percentage.

- (f) "Bloomberg" means Bloomberg, L.P.
- (g) "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.
- (h) "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.
- (i) "Cash" of the Company and its Subsidiaries on any date shall be determined from such Persons' books maintained in accordance with GAAP, and means, without duplication, the cash, cash equivalents and Eligible Marketable Securities accrued by the Company and its wholly owned Subsidiaries on a consolidated basis on such date.
- (j) "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 or (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.
- (k) "Change of Control Redemption Premium" means 125%.
- (1) "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. All such determinations shall be appropriately adjusted for any stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions during such period.
- (m) "Common Stock" means (i) the Company's shares of common stock, \$0.01 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.

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- (n) "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.
- (o) "Conversion Floor Price Condition" means that the relevant Installment Conversion Price is being determined based on clause (x) of such definition.
- (p) "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.
- (q) "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".
- (r) "Eligible Market" means The New York Stock Exchange, the NYSE MKT, the Nasdaq Global Select Market, the Nasdaq Global Market, the Principal Market, the OTCQB or the OTCQX.
- (s) "Eligible Marketable Securities" as of any date means marketable securities which would be reflected on a consolidated balance sheet of the Company and its Subsidiaries prepared as of such date in accordance with GAAP, and which are permitted under the Company's investment policies as in effect on the Initial Issuance Date or approved thereafter by the Board.
- "Equity Conditions" means, with respect to an given date of determination: (i) on each day during the period beginning thirty calendar days prior to the applicable date of determination and ending on and including the applicable date of determination (the "Equity Conditions Measuring Period"), the Common Stock (including all shares of Common Stock issued or issuable upon conversion of the Preferred Shares and exercise of the Warrants) is listed or designated for quotation (as applicable) on an Eligible Market; (ii) during the Equity Conditions Measuring Period, the Company shall have delivered Common Stock upon conversion of the Preferred Shares on a timely basis as set forth in Section 4 hereof and all other shares of capital stock required to be delivered by the Company on a timely basis as set forth in the other Transaction Documents; (iii) any shares of Common Stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination) may be issued in full without violating Section 4(d) hereof; (iv) any shares of Common Stock to be issued in connection with the event requiring determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) 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 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) none of the Holders shall be in possession of any material, non-public information provided to any of them 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 Equity Conditions Measuring Period, the Company otherwise shall have been in compliance with each, and shall not have breached any representation or warranty in any material respect (other than representations or warranties subject to material adverse effect or materiality, which may not be breached in any respect) or any covenant or other term or condition of any Transaction Document, including, without limitation, the Company shall not have failed to timely

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make any payment pursuant to any Transaction Document; (viii) during the Equity Conditions Failure Period, there shall not have occurred any Volume Failure or Price Failure; (ix) on the applicable date of determination (A) no Authorized Share Failure shall exist or be continuing and 100% of the sum of (I) the maximum number of shares of Common Stock then issuable upon conversion of the Preferred Shares (without regard to any limitations on conversion) and (II) the maximum number of shares of Common Stock issuable upon exercise of the Warrants (without regard to any limitations on exercise) are available under the certificate of incorporation of the Company and reserved by the Company to be issued pursuant to this Certificate of Designations and the Warrants, as applicable, and (B) all shares of Common Stock to be issued in connection with the event requiring this determination (or issuable upon conversion of the Conversion Amount being redeemed in the event requiring this determination (without regards to any limitations on conversion set forth herein)) may be issued in full without resulting in an Authorized Share Failure; (x) on each day during the 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; (xi) the Installment Conversion Price is not determined by the Conversion Floor Price Condition; or (xii) the shares of Common Stock issuable pursuant to the event requiring the satisfaction of the Equity Conditions are duly authorized and listed and eligible for trading without restriction on an Eligible Market.

- (u) "Equity Conditions Failure" means that (i) solely with respect to any Installment Conversion, on any day during the applicable Installment Conversion Price Measuring Period, or (ii) solely with respect to any Mandatory Conversion, on any day during the period commencing on the first Trading Day in the applicable Mandatory Conversion Measuring Period through the applicable Mandatory Conversion Date (in either case, such applicable period, the "Equity Conditions Failure Period"), the Equity Conditions have not been satisfied (or waived in writing by the applicable Holder).
- (v) "Floor Price" means \$0.40.
- (w) "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 of the Company or any of its Significant Subsidiaries 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

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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.

- (x) "GAAP" means United States generally accepted accounting principles, consistently applied.
- (y) "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.
- (z) "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.
- (aa) "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 United States generally accepted accounting principles consistently applied 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 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

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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.

- (bb) "Installment Amount" means, as of the applicable date of determination, with respect to a particular Holder, (A) a number of Preferred Shares equal to (i) the product of (1) 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.
- (cc) "Installment Conversion Price" means, with respect to a particular date of determination, the greater of (x) the Floor Price and (y) lowest of (i) the Conversion Price then in effect, and (ii) 88% of the quotient of (A) the sum of the VWAP of the Common Stock for each of the three (3) lowest Trading Days during the seven (7) consecutive Trading Day period (each, an "Installment Conversion Price Measuring Period") ending and including the Trading Day immediately prior to the applicable Installment Date, divided by (B) three (3). All such determinations to be appropriately adjusted for any stock split, stock dividend, stock combination or other similar transaction during any such measuring period.
- (dd) "Installment Date" means each of the following: (i) January 31, 2017, (ii) February 28, 2017, (iii) March 31, 2017, (iv) April 28, 2017, (v) May 31, 2017, (vi) June 30, 2017, (vii) July 31, 2017, (viii) August 31, 2016, (ix) September 29, 2016, (x) October 31, 2016 and (xi) the Maturity Date
- (ee) "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.
- (ff) "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.
- (gg) "Material Adverse Effect" means any material adverse effect on the business, properties, assets, liabilities, operations, results of operations, condition (financial or otherwise) or prospects of the Company and its Subsidiaries, taken as a whole, or on the transactions contemplated hereby or on the other Transaction Documents (as defined below), or on the authority or ability of the Company to perform its obligations under the Transaction Documents.
- (hh) "Maturity Date" shall mean December , 2017; 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 any event shall have occurred and be continuing that with the passage of time and the failure to cure would result in a Triggering Event 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 further 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

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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.

- (ii) "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."
- (jj) "Options" means any rights, warrants or options to subscribe for or purchase shares of Common Stock or Convertible Securities.
- (kk) "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, 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.
- (mm) "Price Failure" means, with respect to a particular Equity Conditions Failure Period, the average VWAP of the Common Stock (as reported on Bloomberg) during the applicable Equity Conditions Failure Period fails to exceed \$0.50 (as adjusted for stock splits, stock dividends, stock combinations, recapitalizations or other similar transactions occurring after the Subscription Date). 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.
- (nn) "Principal Market" means the Nasdaq Capital Market.
- (00) "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."
- (pp) "Redemption Premium" means 120%.
- (qq) "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."
- (rr) "SEC" means the Securities and Exchange Commission or the successor thereto.
- (ss) "Significant Subsidiary" shall have the meaning as defined in Rule 1-02 of Regulation S-X, as amended.
- (tt) "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.
- (uu) "Subscription Date" means December , 2016.
- (vv) "Subject Entity" means any Person, Persons or Group or any Affiliate or associate of any such Person, Persons or Group.
- (ww) "Subsidiaries" means, as of any date of determination, collectively, all Current Subsidiaries and all New Subsidiaries, and each of the foregoing, individually, a "Subsidiary."

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- (xx) "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.
- (yy) "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 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 determinations relating to the Common Stock, any day on which The New York Stock Exchange (or any successor thereto) is open for trading of securities.
- (zz) "**Transaction Documents**" means this Certificate of Designations and the Warrants, all as may be amended from time to time in accordance with the terms thereof.
- (aaa) "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) the greater of (x) \$0.50 and (y) 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).
- (bbb) "Volume Failure" means, with respect to a particular Equity Conditions Failure Period, the average aggregate daily dollar trading volume (as reported on Bloomberg) of the Common Stock on the Principal Market during the applicable Equity Conditions Failure Period, fails to be more than \$200,000.
- (ccc) "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. All such determinations shall be appropriately adjusted for any stock dividend, stock split, stock combination, recapitalization or other similar transaction during such period.

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- (ddd) "Warrants" means any Warrants to purchase Common Stock issued to each Holder in connection with the purchase of Preferred Shares, and shall include all warrants issued in exchange therefor or replacement thereof.
- (eee) "Warrant Shares" means, collectively, the shares of Common Stock issuable upon exercise of the Warrants.
- 31. *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 one (1) Business Day after any such receipt or delivery publicly disclose such material, non-public information on a Current Report on Form 8-K or otherwise. 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.

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IN WITNESS WHEREC	F, the Comp	oany has caused this Certificate of Designations of Series D Convertible Preferred	Stock Plug Power Inc. to
be signed by its	on this	day of December, 2016.	
		PLUG POWER INC.	

TECC	orowek inc.		
By:	Name:		
	Title:		

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EXHIBIT I

PLUG POWER INC. CONVERSION NOTICE

Reference is made to the Certificate of Designations, Preferences and Rights of the Series D Convertible Preferred Stock of Plug Power 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 Plug Power Inc., a Delaware corporation (the "Company"), indicated below into shares of common stock, \$0.01 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:
Plea	se 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:
0	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:

o 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:

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Plea	se issue the Common Stock into which the applicable Preferred Shares are being converted to Holder, or for its benefit, as follows:
o	Check here if requesting delivery as a certificate to the following name and to the following address:
	Issue to:
o	Check here if requesting delivery by Deposit/Withdrawal at Custodian as follows:
	DTC Participant:
	DTC Number:
	Account Number:
Date	::
Nam	ne of Registered Holder
By:	
	Name: Title:
	T., ID.
	Tax ID:
	Facsimile:
E-m	ail Address:

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P.A	н	ıĸ		

ACKNOWLEDGMENT

The Company hereby acknowledges this Conversion Notice and hereby directs Common Stock in accordance with the Transfer Agent Instructions dated by	, 20	to issue the above indicated number of shares of from the Company and acknowledged and agreed to
PLUG 1	POWE	R INC.

Name:			
Title:			
	 Name: Title:	Name:	Name:

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PROSPECTUS

PLUG POWER INC.

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

From time to time, we may offer up to \$200,000,000 of any combination of the securities described in this prospectus, either individually or in units. The warrants and debt securities may be convertible into or exercisable or exchangeable for common stock or preferred stock and the preferred stock may be convertible into or exchangeable for common stock.

Each time we offer securities, we will provide the specific terms of the securities offered in one or more supplements to this prospectus. We may also authorize one or more free writing prospectuses to be provided to you in connection with these offerings. The prospectus supplement and any related free writing prospectus may also add, update or change information contained in this prospectus. You should carefully read this prospectus, the applicable prospectus supplement and any related free writing prospectus, as well as any documents incorporated by reference, before buying any of the securities being offered.

The securities offered by this prospectus may be sold directly by us to investors, through agents designated from time to time or to or through underwriters or dealers on a continuous or delayed basis. We will set forth the names of any underwriters or agents and any applicable fees, commissions, discounts and over-allotments in an accompanying prospectus supplement. For additional information on the methods of sale, you should refer to the section entitled "Plan of Distribution" in this prospectus and in the applicable prospectus supplement. The price to the public of such securities and the net proceeds we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is traded on the NASDAQ Capital Market under the symbol "PLUG." On November 17, 2016, the last reported sale price of our common stock on the NASDAQ Capital Market was \$1.51. The applicable prospectus supplement will contain information, where applicable, as to any other listing, if any, on the NASDAQ Capital Market or any securities market or other exchange of the securities covered by the applicable prospectus supplement.

This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES REFERENCED UNDER THE HEADING "RISK FACTORS" ON PAGE 6 OF THIS PROSPECTUS AS WELL AS THOSE CONTAINED IN THE APPLICABLE PROSPECTUS SUPPLEMENT AND ANY RELATED FREE WRITING PROSPECTUS, AND IN THE OTHER DOCUMENTS THAT ARE INCORPORATED BY REFERENCE INTO THIS PROSPECTUS OR THE APPLICABLE PROSPECTUS SUPPLEMENT.

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

The date of this prospectus is December 9, 2016.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission, or the SEC, utilizing a "shelf" registration process. Under this shelf registration process, we may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock and debt securities, either individually or in units, in one or more offerings, up to a total dollar amount of \$200,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement that will contain more specific information about the specific terms of the offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material information relating to these offerings. Each such prospectus supplement (and any related free writing prospectus that we may authorize to be provided to you) may also add, update or change information contained in this prospectus or in documents incorporated by reference into this prospectus. We urge you to carefully read this prospectus, any applicable prospectus supplement and any related free writing prospectus, together with the information incorporated herein by reference as described under the headings "Where You Can Find Additional Information" and "Incorporation of Certain Information by Reference" before buying any of the securities being offered.

This prospectus may not be used to offer or sell securities unless it is accompanied by a prospectus supplement.

You should rely only on the information contained or incorporated by reference in this prospectus, any applicable prospectus supplement and any related free writing prospectus. We have not authorized anyone to provide you with different information in addition to or different from that contained in this prospectus, any applicable prospectus supplement and any related free writing prospectus. No dealer, salesperson or other person is authorized to give any information or to represent anything not contained in this prospectus, any applicable prospectus supplement or any related free writing prospectus that we may authorize to be provided to you. You must not rely on any unauthorized information or representation. This prospectus is an offer to sell only the securities offered hereby, but only under circumstances and in jurisdictions where it is lawful to do so. You should assume that the information in this prospectus, any applicable prospectus supplement or any related free writing prospectus is accurate only as of the date on the front of the document and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, regardless of the time of delivery of this prospectus, any applicable prospectus supplement or any related free writing prospectus, or any sale of a security.

This prospectus contains summaries of certain provisions contained in some of the documents described herein, but reference is made to the actual documents for complete information. All of the summaries are qualified in their entirety by the actual documents. Copies of some of the documents referred to herein have been filed, will be filed or will be incorporated by reference as exhibits to the registration statement of which this prospectus is a part, and you may obtain copies of those documents as described below under the heading "Where You Can Find Additional Information."

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SUMMARY

This summary highlights selected information from this prospectus or incorporated by reference in this prospectus, and does not contain all of the information that you need to consider in making your investment decision. You should carefully read the entire prospectus, the applicable prospectus supplement and any related free writing prospectus, including the risks of investing in our securities referred to under the heading "Risk Factors" in this prospectus and contained in the applicable prospectus supplement and any related free writing prospectus, and in the other documents that are incorporated by reference into this prospectus. You should also carefully read the information incorporated by reference into this prospectus, including our financial statements, and the exhibits to the registration statement of which this prospectus is a part.

Unless otherwise mentioned or unless the context requires otherwise, throughout this prospectus, any applicable prospectus supplement and any related free writing prospectus, the words "Plug Power," "we," "us," "our," the "Company" or similar references refer to Plug Power Inc. and its subsidiaries; and the term "securities" refers collectively to our common stock, preferred stock, warrants to purchase common stock or preferred stock, debt securities, or any combination of the foregoing securities.

This prospectus and the information incorporated herein by reference includes trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus, any applicable prospectus supplement or any related free writing prospectus are the property of their respective owners.

Our Company

We are a leading provider of alternative energy technology focused on the design, development, commercialization and manufacture of hydrogen fuel cell systems used primarily for the material handling and stationary power market.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies, fuel cell/battery hybrid technologies, and associated hydrogen storage and dispensing infrastructure from which multiple products are available. A fuel cell is an electrochemical device that combines hydrogen and oxygen to produce electricity and heat without combustion. Hydrogen is derived from hydrocarbon fuels such as liquid petroleum gas, or LPG, natural gas, propane, methanol, ethanol, gasoline or biofuels. Plug Power develops complete hydrogen delivery, storage and refueling solutions for customer locations. Hydrogen can also be obtained from the electrolysis of water, or produced on-site at consumer locations through a process known as reformation. Currently we obtain hydrogen by purchasing it from fuel suppliers for resale to customers.

We provide and continue to develop fuel cell product solutions to replace lead-acid batteries in material handling vehicles and industrial trucks for some of the world's largest distribution and manufacturing businesses. We are focusing our efforts on material handling applications (forklifts) at multi-shift high volume manufacturing and high throughput distribution sites where our products and services provide a unique combination of productivity, flexibility and environmental benefits. Our current product line includes: GenDrive, our hydrogen fueled PEM fuel cell system providing power to material handling vehicles; GenFuel, our hydrogen fueling delivery system; GenCare, our ongoing maintenance program for both the GenDrive fuel cells and GenFuel products; GenSure (formerly ReliOn), our stationary fuel cell solution providing scalable, modular PEM fuel cell power to support the backup and grid-support power requirements of the telecommunications, transportation, and utility sectors; GenKey, our turn-key solution combining either GenDrive or GenSure with GenFuel and GenCare, offering complete simplicity to customers transitioning to fuel cell power; and GenFund, a collaboration with leasing organizations to provide cost efficient and seamless financing solutions to customers.

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We provide our products worldwide through our direct product sales force, and by leveraging relationships with original equipment manufacturers, or OEMs, and their dealer networks. Our subsidiary based in France, HyPulsion S.A.S., or HyPulsion France, develops and sells hydrogen fuel cell systems for the European material handling market.

We were organized in the State of Delaware on June 27, 1997. Our principal executive offices are located at 968 Albany-Shaker Road, Latham, New York, 12110, and our telephone number is (518) 782-7700. Our corporate website address is www.plugpower.com. Information on our website is not deemed to be a part of this prospectus or any applicable prospectus supplement. Our common stock trades on the NASDAQ Capital Market under the symbol "PLUG."

The Securities We May Offer

We may offer shares of our common stock and preferred stock, various series of warrants to purchase common stock or preferred stock and debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt, either individually or in units, with a total value of up to \$200,000,000 from time to time in one or more offerings under this prospectus at prices and on terms to be determined at the time of any offering. This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities under this prospectus, we will provide a prospectus supplement and/or free writing prospectus that will describe the specific amounts, prices and other important terms of the securities.

The prospectus supplement and any related free writing prospectus that we may authorize to be provided to you may also add, update or change information contained in this prospectus or in documents we have incorporated by reference. However, no prospectus supplement or free writing prospectus will offer a security that is not registered and described in this prospectus at the time of the effectiveness of the registration statement of which this prospectus is a part or any amendment thereto.

This prospectus may not be used to offer or sell securities unless it is accompanied by a prospectus supplement.

We may sell the securities directly to investors or to or through agents, underwriters or dealers. We, and our agents or underwriters, reserve the right to accept or reject all or part of any proposed purchase of securities. If we do offer securities to or through agents or underwriters, we will include in the applicable prospectus supplement:

the names of those agents or underwriters;
applicable fees, discounts and commissions to be paid to them;
details regarding over-allotment options or options to purchase additional securities, if any; and the net proceeds to us.

Common Stock. We may issue shares of our common stock from time to time. Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders and do not have cumulative voting rights. Subject to the preferences that may be applicable to any then outstanding preferred stock, the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock.

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Preferred Stock. We may issue shares of our preferred stock from time to time, in one or more series. Our board of directors will determine the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, including dividend rights, conversion rights, preemptive rights, terms of redemption or repurchase, liquidation preferences, sinking fund terms and the number of shares constituting any series or the designation of any series. Convertible preferred stock will be convertible into our common stock or exchangeable for other securities. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

If we sell any series of preferred stock under this prospectus, we will fix the rights, preferences and privileges of the preferred stock of such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. We urge you to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of preferred stock being offered, as well as the complete certificate of designation that contains the terms of the applicable series of preferred stock.

Warrants. We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. In this prospectus, we have summarized certain general features of the warrants. We urge you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the particular series of warrants being offered, as well as the complete warrant agreements and warrant certificates that contain the terms of the warrants. Forms of the warrant agreements and forms of warrant certificates containing the terms of the warrants being offered will be filed as exhibits to the registration statement of which this prospectus is a part or will be incorporated by reference from reports that we file with the SEC.

We will evidence each series of warrants by warrant certificates that we will issue. Warrants may be issued under an applicable warrant agreement that we enter into with a warrant agent. We will indicate the name and address of the warrant agent, if applicable, in the prospectus supplement relating to the particular series of warrants being offered.

Debt Securities. We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible debt. In this prospectus, we have summarized certain general features of the debt securities. We urge you, however, to read the applicable prospectus supplement and any free writing prospectus that we may authorize to be provided to you related to the particular series of debt securities being offered, as well as the complete indenture that contains the terms of the debt securities. We will file as exhibits to the registration statement of which this prospectus is a part, the form of indenture and any supplemental agreements that describe the terms of the series of debt securities we are offering before the issuance of the related series of debt securities.

We may evidence each series of debt securities by indentures we will issue. Debt securities may be issued under an indenture that we enter into with a trustee. We will indicate the name and address of the trustee, if applicable, in the prospectus supplement relating to the particular series of debt securities being offered.

Units. We may issue, in one or more series, units consisting of common stock, preferred stock, debt securities and/or warrants for the purchase of common stock and/or preferred stock in any combination. In this prospectus, we have summarized certain general features of the units. We urge

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you, however, to read the applicable prospectus supplement (and any free writing prospectus that we may authorize to be provided to you) related to the series of units being offered, as well as the complete unit agreement that contains the terms of the units. We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of unit agreement and any supplemental agreements that describe the terms of the series of units we are offering before the issuance of the related series of units.

We will evidence each series of units by unit certificates that we will issue. Units may be issued under a unit agreement that we enter into with a unit agent. We will indicate the name and address of the unit agent, if applicable, in the prospectus supplement relating to the particular series of units being offered.

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RISK FACTORS

Investing in our securities involves a high degree of risk. Before purchasing our securities, you should carefully consider the risks and uncertainties set forth under the heading "Risk Factors" in our Annual Report on Form 10-K for the fiscal year ended December 31, 2015, filed with the SEC on March 14, 2016, our quarterly reports on Form 10-Q for the quarters ended March 31, 2015, June 30, 2015 and September 30, 2016, filed on May 10, 2016, August 9, 2016 and November 8, 2016, respectively, which are incorporated by reference in this prospectus, as well as any updates thereto contained in subsequent filings with the SEC or any applicable prospectus supplement or free writing prospectus. If any of these risks were to occur, our business, financial condition or results of operations would likely suffer. In that event, the value of our securities could decline, and you could lose all or part of your investment. The risks and uncertainties we describe are not the only ones facing us. Additional risks not presently known to us or that we currently deem immaterial may also impair our business operations, the market price of our securities or the value of your investment.

FORWARD-LOOKING STATEMENTS

This prospectus contains statements that are not historical facts and are considered forward-looking within the meaning of Section 27A of the Securities Act and Section 21E of the Exchange Act. These forward-looking statements contain projections of our future results of operations or of our financial position or state other forward-looking information. In some cases you can identify these statements by forward-looking words such as "anticipate," "believe," "could," "continue," "estimate," "expect," "intend," "may," "should," "will," "would," "plan," "projected" or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to: the risk that we continue to incur losses and might never achieve or maintain profitability; the risk that we will need to raise additional capital to fund our operations and such capital may not be available to us; the risk of dilution to our stockholders and/or stock price should we need to raise additional capital; the risk that our lack of extensive experience in manufacturing and marketing products may impact our ability to manufacture and market products on a profitable and large-scale commercial basis; the risk that unit orders will not ship, be installed and/or converted to revenue, in whole or in part; the risk that a loss of one or more of our major customers could result in a material adverse effect on our financial condition; the risk that a sale of a significant number of shares of stock could depress the market price of our common stock; the risk that negative publicity related to our business or stock could result in a negative impact on our stock value and profitability; the risk of potential losses related to any product liability claims or contract disputes; the risk of loss related to an inability to maintain an effective system of internal controls; our ability to attract and maintain key personnel; the risks related to the use of flammable fuels in our products; the risk that pending orders may not convert to purchase orders, in whole or in part; the cost and timing of developing, marketing and selling our products and our ability to raise the necessary capital to fund such costs; our ability to obtain financing arrangements to support the sale or leasing of our products and services to customers; the ability to achieve the forecasted gross margin on the sale of our products; the cost and availability of fuel and fueling infrastructures for our products; the risk of elimination of government subsidies and economic incentives for alternative energy products; market acceptance of our products and services, including GenDrive units; our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution and servicing and the supply of key product components; the cost and availability of components and parts for our products; our ability to develop commercially viable products; our ability to reduce product and manufacturing costs; our ability to

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successfully market, distribute and service our products and services internationally; our ability to improve system reliability for our products; competitive factors, such as price competition and competition from other traditional and alternative energy companies; our ability to protect our intellectual property; the cost of complying with current and future federal, state and international governmental regulations; the risks associated with potential future acquisitions; the volatility of our stock price; and other risks and uncertainties referenced under "Risk Factors" above and in any applicable prospectus supplement or free writing prospectus and any documents incorporated by reference herein or therein. Readers should not place undue reliance on our forward-looking statements. These forward-looking statements speak only as of the date on which the statements were made and are not guarantees of future performance. Except as may be required by applicable law, we do not undertake or intend to update any forward-looking statements after the date of this prospectus or the respective dates of documents incorporated herein or therein that include forward-looking statements.

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RATIO OF COMBINED FIXED CHARGES AND PREFERENCE DIVIDENDS TO EARNINGS

Our ratio of combined fixed charges and preference dividends to earnings for each of the five most recently completed fiscal years and any required interim periods will each 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 and/or preference securities in the future.

USE OF PROCEEDS

Except as described in any prospectus supplement or in any related free writing prospectus that we may authorize to be provided to you, the net proceeds received by us from our sale of the securities described in this prospectus will be added to our general funds and will be used for our general corporate purposes. From time to time, we may engage in additional public or private financings of a character and amount which we may deem appropriate.

PLAN OF DISTRIBUTION

We may sell the securities from time to time pursuant to underwritten public offerings, negotiated transactions, block trades or a combination of these methods. We may sell the securities to or through underwriters or dealers, through agents, remarketing firms or other third parties and/or directly to one or more purchasers. In some cases, we or dealers acting with us or on our behalf may also purchase our securities and reoffer them to the public. We may also offer and sell, or agree to deliver, our securities pursuant to, or in connection with, any option agreement or other contractual arrangement. We may distribute securities from time to time in one or more transactions:

at a fixed price or prices, which may be changed;

at market prices prevailing at the time of sale;

	at prices related to such prevailing market prices; or
	at negotiated prices.
Each time we including:	offer and sell securities, we will provide a prospectus supplement that will set forth the terms of the offering of the securities,
	the name or names of the underwriters, if any;
	the purchase price of the securities and the proceeds we will receive from the sale;
	any over-allotment or other options under which underwriters may purchase additional securities;
	any agency fees or underwriting discounts and other items constituting agents' or underwriters' compensation;
	any public offering price;

any discounts or concessions allowed or reallowed or paid to dealers; and

any securities exchange or market on which the securities may be listed.

If underwriters are used in the sale, they will acquire the securities for their own account and may resell the securities from time to time in one or more 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. We may offer the securities to the public through underwriting syndicates represented by managing underwriters or by underwriters without a syndicate. If applicable, we will include the names of the specific managing underwriter or underwriters, as well as the names of any other underwriters, and the terms of

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the transactions, including the compensation the underwriters and dealers will receive, in the applicable prospectus supplement. Subject to certain conditions, the underwriters will be obligated to purchase all of the securities offered by the prospectus supplement, other than securities covered by any over-allotment option or option to purchase additional securities. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may change from time to time. We may use underwriters with whom we or they have a material relationship. The prospectus supplement, naming the underwriter, will describe the nature of any such relationship.

We may sell securities directly or through agents we or they designate from time to time. The prospectus supplement will name any agent involved in the offering and sale of securities and any commissions we will pay to them. Unless the prospectus supplement states otherwise, any agent will be acting on a best-efforts basis for the period of its appointment. Agents may be deemed to be underwriters under the Securities Act, of any of our securities that they offer or sell.

We may use a dealer to sell our securities. If we use a dealer, we will sell our securities to the dealer, as principal. The dealer will then sell our securities to the public at varying prices that the dealer will determine at the time it sells our securities. We will include the name of the dealer and the terms of the transactions with the dealer in the applicable prospectus supplement.

We may authorize agents or underwriters to solicit offers by certain purchasers to purchase securities from us or them at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. The prospectus supplement will set forth the conditions to these contracts and any commissions we must pay for solicitation of these contracts

We may effect sales of securities in connection with forward sale, option or other types of agreements with third parties. Any distribution of securities pursuant to any forward sale agreement may be effected from time to time in one or more transactions that may take place through a stock exchange, including block trades or ordinary broker's transactions, or through broker-dealers acting either as principal or agent, or through privately-negotiated transactions, or through an underwritten public offering, or through a combination of any such methods of sale, at market prices prevailing at the time of sale, prices relating to such prevailing market prices or at negotiated or fixed prices.

We may engage in at the market offerings into an existing trading market in accordance with Rule 415(a)(4) under the Securities Act.

We may provide agents and underwriters with indemnification against civil liabilities, including liabilities under the Securities Act, or contribution with respect to payments that the agents or underwriters may make with respect to these liabilities. Agents and underwriters may engage in transactions with, or perform services for, us in the ordinary course of business.

All securities we may offer, other than common stock, will be new issues of securities with no established trading market. Any underwriters may make a market in these securities, but will not be obligated to do so and may discontinue any market making at any time without notice. We cannot guarantee the liquidity of the trading markets for any securities.

Any underwriter may engage in over-allotment, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M under the Exchange Act. Over-allotment involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum price. Syndicate-covering or other short-covering transactions involve purchases of the securities, either through exercise of the over-allotment option or in the open market after the distribution is completed, to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the securities originally sold by the dealer are purchased in a stabilizing or covering transaction to cover short positions. Those activities may cause the price of the securities to be higher

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than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time.

Any underwriters that are qualified market makers on the NASDAQ Capital Market may engage in passive market making transactions in the common stock on the NASDAQ Capital Market in accordance with Regulation M under the Exchange Act, during the business day prior to the pricing of the offering, before the commencement of offers or sales of the common stock. Passive market makers must comply with applicable volume and price limitations and must be identified as passive market makers. In general, a passive market maker must display its bid at a price not in excess of the highest independent bid for such security; if all independent bids are lowered below the passive market maker's bid, however, the passive market maker's bid must then be lowered when certain purchase limits are exceeded. Passive market making may stabilize the market price of the securities at a level above that which might otherwise prevail in the open market and, if commenced, may be discontinued at any time.

In compliance with guidelines of the Financial Industry Regulatory Authority, or FINRA, the maximum consideration or discount to be received by any FINRA member or independent broker dealer may not exceed 8% of the aggregate amount of the securities offered pursuant to this prospectus and any applicable prospectus supplement.

The specific terms of the lock-up provisions, if any, in respect of any given offering will be described in the applicable prospectus supplement.

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DESCRIPTION OF CAPITAL STOCK

This section describes the general terms of our common stock and preferred stock that we may offer from time to time. For more detailed information, a holder of our common stock and/or preferred stock should refer to our certificate of incorporation, our by-laws and our shareholder rights agreement with respect to our preferred share purchase rights, copies of which are filed with the SEC as exhibits to the registration statement of which this prospectus is a part.

General

Our authorized capital stock consists of 450,000,000 shares of common stock, \$0.01 par value per share, and 5,000,000 shares of preferred stock, \$0.01 par value per share. As of November 18, 2016, there were 180,610,344 shares of our common stock outstanding and 5,231 shares of our Series C Redeemable Convertible Preferred Stock ("Series C Preferred Stock") outstanding.

The following summary description of our capital stock is based on the provisions of our amended and restated certificate of incorporation and amended and restated bylaws and the applicable provisions of the Delaware General Corporation Law. This information is qualified entirely by reference to the applicable provisions of our amended and restated certificate of incorporation, amended and restated bylaws and the Delaware General Corporation Law. For information on how to obtain copies of our amended and restated certificate of incorporation and amended and restated bylaws, which are exhibits to the registration statement of which this prospectus is a part, see "Where You Can Find Additional Information" and "Incorporation of Certain Information by Reference."

Common Stock

Holders of shares of our common stock are entitled to one vote for each share held of record on all matters to be voted on by stockholders, including the election of directors. Our amended and restated certificate of incorporation and amended and restated bylaws do not provide for cumulative voting rights. Because of this, the holders of a majority of our common stock entitled to vote in any election of directors can elect all of the directors standing for election. Subject to the preferences that may be applicable to any then outstanding preferred stock (including the Series C Preferred Stock), the holders of our outstanding shares of common stock are entitled to receive dividends, if any, as may be declared from time to time by our board of directors out of legally available funds. In the event of our liquidation, dissolution or winding up, holders of our common stock will be entitled to share ratably in the net assets legally available for distribution to stockholders after the payment of all of our debts and other liabilities, subject to the satisfaction of any liquidation preference granted to the holders of any outstanding shares of preferred stock (including the Series C Preferred Stock). Holders of our common stock have no preemptive, conversion or subscription rights, and there are no redemption or sinking fund provisions applicable to our common stock. The rights, preferences and privileges of the holders of our common stock are subject to, and may be adversely affected by, the rights of the holder of our Series C Preferred Stock as well as the rights of any series of our preferred stock that we may designate and issue in the future.

Preferred Stock

Pursuant to our amended and restated certificate of incorporation, our board of directors has the authority, without further action by the stockholders (unless such stockholder action is required by applicable law or NASDAQ rules), to designate and issue up to 5,000,000 shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each such series, to fix the rights, preferences and privileges of the shares of each wholly unissued series, and any qualifications, limitations or restrictions thereon, and to increase or decrease the number of shares of any such series, but not below the number of shares of such series then outstanding.

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We will fix the rights, preferences and privileges of the preferred stock of each such series, as well as any qualifications, limitations or restrictions thereon, in the certificate of designation relating to that series. We will file as an exhibit to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of any certificate of designation that describes the terms of the series of preferred stock we are offering before the issuance of that series of preferred stock. This description will include:

the title and stated value;
the number of shares we are offering;
the liquidation preference per share;
the purchase price;
the dividend rate, period and payment date and method of calculation for dividends;
whether dividends will be cumulative or non-cumulative and, if cumulative, the date from which dividends will accumulate;
the procedures for any auction and remarketing, if any;
the provisions for a sinking fund, if any;
the provisions for redemption or repurchase, if applicable, and any restrictions on our ability to exercise those redemption and repurchase rights;
any listing of the preferred stock on any securities exchange or market;
whether the preferred stock will be convertible into our common stock, and, if applicable, the conversion price, or how it will be calculated, and the conversion period;
whether the preferred stock will be exchangeable into debt securities, and, if applicable, the exchange price, or how it will be calculated, and the exchange period;
voting rights, if any, of the preferred stock;
preemptive rights, if any;
restrictions on transfer, sale or other assignment, if any;

whether interests in the preferred stock will be represented by depositary shares;

a discussion of any material United States federal income tax considerations applicable to the preferred stock;

the relative ranking and preferences of the preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs;

any limitations on the issuance of any class or series of preferred stock ranking senior to or on a parity with the series of preferred stock as to dividend rights and rights if we liquidate, dissolve or wind up our affairs; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the preferred stock.

The General Corporation Law of the State of Delaware, the state of our incorporation, provides that the holders of preferred stock will have the right to vote separately as a class (or, in some cases, as a series) on an amendment to our amended and restated certificate of incorporation if the amendment would change the par value, the number of authorized shares of the class or the powers, preferences or special rights of the class or series so as to adversely affect the class or series, as the case may be. This right is in addition to any voting rights that may be provided for in the applicable certificate of designation.

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Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of our common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in our control and may adversely affect the market price of the common stock and the voting and other rights of the holders of common stock. Additionally, the issuance of preferred stock may have the effect of decreasing the market price of our common stock.

Series C Redeemable Convertible Preferred Stock

The Series C Preferred Stock votes together with the common stock on an as-converted basis on all matters, including the election of directors, except as otherwise required by law. Each share of Series C Preferred Stock is entitled to a number of votes equal to the number of whole shares of common stock into which such share of Series C Preferred Stock is convertible.

The Series C Preferred Stock ranks senior to the common stock with respect to rights upon the liquidation, dissolution or winding up of our company. The Series C Preferred Stock is entitled to receive dividends at a rate of 8% per annum, based upon the original issue price, payable in equal quarterly installments in cash or in shares of common stock, at our option. The Series C Preferred Stock is convertible into shares of common stock, at a conversion price equal to \$0.2343 per share (as of November 17, 2016 and subject to future adjustments). As of November 17, 2016, the outstanding shares of our Series C Preferred Stock are convertible into an aggregate of 5,554,594 shares of common stock. The Series C Preferred Stock has customary redemption rights at the election of either us or the holder thereof as well as weighted average anti-dilution protection.

Delaware Anti-Takeover Law and Provisions of our Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws

Delaware Anti-Takeover Law. We are subject to Section 203 of the Delaware General Corporation Law. Section 203 generally prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder, unless:

prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the 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 for purposes of determining the number of shares outstanding (a) shares owned by persons who are directors and also officers and (b) shares owned 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

on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock which is not owned by the interested stockholder.

Section 203 defines a business combination to include:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition involving the interested stockholder of 10% or more of the assets of the corporation;

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subject to exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder; and

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

In general, Section 203 defines an interested stockholder as any entity or person beneficially owning 15% or more of the outstanding voting stock of the corporation or any entity or person affiliated with or controlling or controlled by the entity or person.

Amended and Restated Certificate of Incorporation and Amended and Restated Bylaws. Provisions of our amended and restated certificate of incorporation and amended and restated bylaws may delay or discourage transactions involving an actual or potential change in our control or change in our management, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that our stockholders might otherwise deem to be in their best interests. Therefore, these provisions could adversely affect the price of our common stock. Among other things, our amended and restated certificate of incorporation and amended and restated bylaws:

permit our board of directors to issue up to 5,000,000 shares of preferred stock, with any rights, preferences and privileges as they may designate;

provide that the authorized number of directors may be changed only by resolution of the board of directors;

provide that all vacancies, including newly created directorships, may, except as otherwise required by law and subject to the rights of the holders of any series of preferred stock, be filled by the affirmative vote of a majority of directors then in office, even if less than a quorum;

divide our board of directors into three classes;

require that any action to be taken by our stockholders must be effected at a duly called annual or special meeting of stockholders and not be taken by written consent;

provide that stockholders seeking to present proposals before a meeting of stockholders or to nominate candidates for election as directors at a meeting of stockholders must provide notice in writing in a timely manner, and also specify requirements as to the form and content of a stockholder's notice;

do not provide for cumulative voting rights (therefore allowing the holders of a majority of the shares of common stock entitled to vote in any election of directors to elect all of the directors standing for election, if they should so choose); and

provide that special meetings of our stockholders may be called only by the chairman of the board, our chief executive officer, our president or by the board of directors pursuant to a resolution adopted by a majority of the total number of authorized directors.

The amendment of any of these provisions, with the exception of the ability of our board of directors to issue shares of preferred stock and designate any rights, preferences and privileges thereto, would require approval by the holders of at least 66-2/3% of our then outstanding common stock.

Shareholder Rights Plan

We have a shareholder rights plan, the purpose of which is, among other things, to enhance our board's ability to protect stockholder interests and to ensure that stockholders receive fair treatment in the event any coercive takeover attempt of our company is made in the future. The shareholder rights plan could make it more difficult for a third party to acquire, or could discourage a third party from acquiring, us or a large block of our common stock. The following summarizes material terms of the

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shareholder rights plan and the associated preferred share purchase rights. This description is subject to the detailed provisions of, and is qualified by reference to, the shareholder rights agreement which has been filed as an exhibit to our Registration Statement on Form 8-A dated June 24, 2009, as amended by the Amendment No. 1 to Form 8-A filed with the SEC on May 6, 2011, the Amendment No. 2 to Form 8-A filed with the SEC on March 19, 2012, the Amendment No. 3 to Form 8-A filed with the SEC on March 26, 2012, the Amendment No. 4 to Form 8-A filed with the SEC on February 13, 2013 and the Amendment No. 5 to Form 8-A filed with the SEC on May 20, 2013.

Each outstanding share of our common stock evidences one preferred share purchase right. Under the terms of the shareholder rights agreement, each preferred share purchase right entitles the registered holder to purchase from us one ten-thousandth of a share (each, a "unit") of our Series A Junior Participating Cumulative Preferred Stock, par value \$0.01 per share, at a cash exercise price of \$6.50 per unit, subject to adjustment. Initially, the preferred share purchase rights are not exercisable and are attached to and trade with all shares of common stock. The preferred share purchase rights will separate from the common stock and will become exercisable upon the earlier of:

the close of business on the tenth calendar day following the first public announcement that a person or group of affiliated or associated persons has acquired beneficial ownership of 15% or more of the outstanding shares of common stock, other than as a result of repurchases of stock by the Company or certain inadvertent actions by a stockholder, or

the close of business on the tenth business day (or such later day as the Board of Directors may determine) following the commencement of a tender offer or exchange offer that could result upon its consummation in a person or group becoming the beneficial owner of 15% or more of the outstanding shares of common stock.

With respect to any person who beneficially owned 15% or more of the outstanding shares of common stock as of June 23, 2009, such person's share ownership will not cause the preferred share purchase rights to be exercisable unless:

such person acquires beneficial ownership of shares of common stock representing more than an additional 0.5% of the outstanding shares of common stock held by such person as of June 23, 2009; or

if after June 23, 2009 such person reduces its beneficial ownership of shares of common stock and such person subsequently acquires beneficial ownership of more than an additional 0.5% of the common stock.

In the event that a person or group of affiliated or associated persons has acquired beneficial ownership of 15% or more of the outstanding shares of common stock, proper provision will be made so that each holder of a preferred share purchase right (other than an acquiring person or its associates or affiliates, whose preferred share purchase rights shall become null and void) will thereafter have the right to receive (a "subscription right") upon exercise, in lieu of a number of units, that number of shares of our common stock (or, in certain circumstances, including if there are insufficient shares of common stock to permit the exercise in full of the preferred share purchase rights, units of preferred stock, other securities, cash or property, or any combination of the foregoing) having a market value of two times the exercise price of the preferred share purchase rights.

In the event that, at any time following the date that a person or group of affiliated or associated persons has acquired beneficial ownership of 15% or more of the outstanding shares of common stock:

we consolidate with, or merge with and into, any other person, and we are not the continuing or surviving corporation,

any person consolidates with us, or merges with and into us and we are the continuing or surviving corporation of such merger and, in connection with such merger, all or part of the

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shares of common stock are changed into or exchanged for stock or other securities of any other person or cash or any other property, or

50% or more of our assets or earning power is sold, mortgaged or otherwise transferred,

each holder of a preferred share purchase right (other than an acquiring person or its associates or affiliates, whose preferred share purchase rights shall become null and void) will thereafter have the right to receive (a "merger right"), upon exercise, common stock of the acquiring company having a market value equal to two times the exercise price of the preferred share purchase rights. The holder of a preferred share purchase right will continue to have this merger right whether or not such holder has exercised its subscription right. Preferred share purchase rights that are or were beneficially owned by an acquiring person may (under certain circumstances specified in the shareholder rights agreement) become null and void.

The preferred share purchase rights may be redeemed in whole, but not in part, at a price of \$0.001 per preferred share purchase right (payable in cash, common stock or other consideration deemed appropriate by the board of directors) by the board of directors only until the earlier of:

the time at which any person becomes an acquiring person; or

the expiration date of the shareholder rights agreement.

Immediately upon the action of the board of directors ordering redemption of the preferred share purchase rights, the preferred share purchase rights will terminate and thereafter the only right of the holders of preferred share purchase rights will be to receive the redemption price.

The shareholder rights agreement requires an independent committee of the board of directors to review at least once every three years whether maintaining the shareholder rights agreement continues to be in the best interests of our stockholders.

The shareholder rights agreement may be amended by the board of directors in its sole discretion at any time prior to the time at which any person becomes an acquiring person. After such time the board of directors may, subject to certain limitations set forth in the shareholder rights agreement, amend the shareholder rights agreement only to cure any ambiguity, defect or inconsistency, to shorten or lengthen any time period, or to make changes that do not adversely affect the interests of preferred share purchase rights holders (excluding the interests of an acquiring person or its associates or affiliates). In addition, the board of directors may at any time prior to the time at which any person becomes an acquiring person, amend the shareholder rights agreement to lower the threshold at which a person becomes an acquiring person to not less than the greater of:

the sum of 0.001% and the largest percentage of the outstanding common stock then owned by any person, and

10%.

Until a preferred share purchase right is exercised, the holder will have no rights as a stockholder of the Company (beyond those as an existing stockholder), including the right to vote or to receive dividends. While the distribution of the preferred share purchase rights will not be taxable to stockholders or to us, stockholders may, depending upon the circumstances, recognize taxable income in the event that the preferred share purchase rights become exercisable for units, our other securities, other consideration or for common stock of an acquiring company.

The preferred share purchase rights will expire at the close of business on June 23, 2019, unless previously redeemed or exchanged by us.

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Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Broadridge Corporate Issuer Solutions, Inc. The transfer agent and registrar's address is 1717 Arch Street, Suite 1300, Philadelphia, Pennsylvania, 19103. The transfer agent and registrar for any series of preferred stock that we may offer under this prospectus will be named and described in the prospectus supplement for that series.

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DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. We may issue warrants independently or together with common stock, preferred stock and/or debt securities, and the warrants may be attached to or separate from these securities. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under a prospectus supplement may differ from the terms described below.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports that we file with the SEC, the form of warrant agreement, including a form of warrant certificate, that describes the terms of the particular series of warrants we are offering before the issuance of the related series of warrants. The following summaries of material provisions of the warrants and the warrant agreements are subject to, and qualified in their entirety by reference to, all the provisions of the warrant agreement and warrant certificate applicable to the particular series of warrants that we may offer under this prospectus. We urge you to read the applicable prospectus supplements related to the particular series of warrants that we may offer under this prospectus, as well as any related free writing prospectuses, and the complete warrant agreements and warrant certificates that contain the terms of the warrants.

General

If warrants for the purchase of common stock or preferred stock are offered, the prospectus supplement or free writing prospectus will describe the following terms, to the extent applicable:

the offering price and aggregate number of warrants offered;
the currency for which the warrants may be purchased;
if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
if applicable, the date on and after which the warrants and the related securities will be separately transferable;
the number of shares of common stock or preferred stock, as the case may be, purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
the terms of any rights to redeem or call the warrants;
any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
the dates on which the right to exercise the warrants will commence and expire;

the manner in which the warrant agreements and warrants may be modified;

the terms of the securities issuable upon exercise of the warrants; and

any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

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Warrants for the purchase of debt securities will be in registered form only. If warrants for the purchase of debt securities are offered, the prospectus supplement or free writing prospectus will describe the following terms, to the extent applicable:

the offering price and aggregate number of warrants offered;

the currencies in which the warrants are being offered;

the designation, aggregate principal amount, currencies, denominations and terms of the series of debt securities that can be purchased if a holder exercises a warrant;

the designation and terms of any series of debt securities with which the warrants are being offered and the number of warrants offered with each such debt security;

the date on and after which the holder of the warrants can transfer them separately from the related series of debt securities;

the principal amount of the series of debt securities that can be purchased if a holder exercises a warrant and the price at which and currencies in which such principal amount may be purchased upon exercise;

the terms of any rights to redeem or call the warrants;

the date on which the right to exercise the warrants begins and the date on which such right expires;

federal income tax consequences of holding or exercising the warrants; and

any other specific terms, preferences, rights or limitations of, or restrictions on, the warrants.

Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to the specified time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

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Governing Law

Unless we provide otherwise in the applicable prospectus supplement, the warrants and warrant agreements will be governed by and construed in accordance with the laws of the State of New York.

Enforceability of Rights by Holders of Warrants

Each warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

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DESCRIPTION OF OUR DEBT SECURITIES

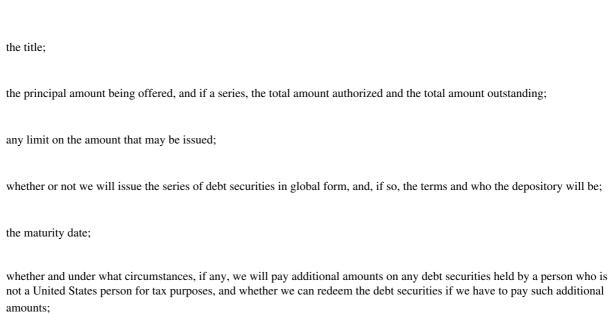
We may issue senior debt securities from time to time, in one or more series, under a senior indenture to be entered into between us and a senior trustee to be named in a prospectus supplement, which we refer to as the senior trustee. We may issue subordinated debt securities from time to time, in one or more series, under a subordinated indenture to be entered into between us and a subordinated trustee to be named in a prospectus supplement, which we refer to as the subordinated trustee. The forms of senior indenture and subordinated indenture are filed as exhibits to this registration statement of which this prospectus forms a part. Together, the senior indenture and the subordinated indenture are referred to as the indentures and, together, the senior trustee and the subordinated trustee are referred to as the trustees. This prospectus briefly outlines some of the provisions of the indentures.

None of the indentures will limit the amount of debt securities that we may issue. The applicable indenture will provide that debt securities may be issued up to an aggregate principal amount authorized from time to time by us and may be payable in any currency or currency unit designated by us or in amounts determined by reference to an index.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all of the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplement or free writing prospectus and any related free writing prospectuses related to the debt securities that we may offer under this prospectus, as well as the complete applicable indenture that contains the terms of the debt securities.

General

We will describe in the applicable prospectus supplement or free writing prospectus the terms of the series of debt securities being offered, including:



not a United States person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional

the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;

whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;

the terms of the subordination of any series of subordinated debt;

the place where payments will be payable;

restrictions on transfer, sale or other assignment, if any;

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our right, if any, to defer payment of interest and the maximum length of any such deferral period;

the date, if any, after which, the conditions upon which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemption provisions;

the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option, to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;

whether the indenture will restrict our ability or the ability of our subsidiaries to: incur additional indebtedness: issue additional securities: create liens; pay dividends or make distributions in respect of our capital stock or the capital stock of our subsidiaries; redeem capital stock; place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets; make investments or other restricted payments; sell or otherwise dispose of assets; enter into sale-leaseback transactions; engage in transactions with stockholders or affiliates; issue or sell stock of our subsidiaries; or effect a consolidation or merger;

whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;

a discussion of certain material or special United States federal income tax considerations applicable to the debt securities;

information describing any book-entry features;

provisions for a sinking fund purchase or other analogous fund, if any;

the applicability of the provisions in the indenture on discharge;

whether the debt securities are to be offered at a price such that they will be deemed to be offered at an "original issue discount" as defined in paragraph (a) of Section 1273 of the Internal Revenue Code of 1986, as amended;

the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof;

the currency of payment of debt securities if other than U.S. dollars and the manner of determining the equivalent amount in U.S. dollars; and

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any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may, from time to time, without notice to or the consent of the holders of any series of debt securities, create and issue further debt securities of any such series ranking equally with the debt securities of such series in all respects (or in all respects other than (a) the payment of interest accruing prior to the issue date of such further debt securities or (b) the first payment of interest following the issue date of such further debt securities). Such further debt securities may be consolidated and form a single series with the debt securities of such series and have the same terms as to status, redemption or otherwise as the debt securities of such series.

Certain Terms of the Senior Debt Securities

Conversion or Exchange Rights. We will set forth in the applicable prospectus supplement or free writing prospectus the terms on which a series of senior debt securities may be convertible into or exchangeable for our common stock, our preferred stock or other securities (including securities of a third-party). We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock, our preferred stock or other securities (including securities of a third-party) that the holders of the series of senior debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale. Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the senior debt securities will not contain any covenant that restricts our ability to merge or consolidate, or sell, convey, transfer or otherwise dispose of all or substantially all of our assets. However, any successor to or acquirer of such assets must assume all of our obligations under the senior indentures or the senior debt securities, as appropriate. If the senior debt securities are convertible into or exchangeable for other securities of ours or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the senior debt securities into securities that the holders of the senior debt securities would have received if they had converted the senior debt securities before the consolidation, merger or sale.

No Protection in the Event of a Change in Control. Unless we indicate otherwise in a prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the senior debt securities will not contain any provisions that may afford holders of the senior debt securities protection in the event we have a change in control or in the event of a highly leveraged transaction (whether or not such transaction results in a change in control).

Events of Default. Unless we provide otherwise in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities, the following are events of default under the senior indentures with respect to any series of senior debt securities that we may issue:

if we fail to pay interest when due and payable and our failure continues for 90 days (or such other period as may be specified for such series) and the time for payment has not been extended;

if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable at maturity, upon redemption or repurchase or otherwise (and, if specified for such series, the continuance of such failure for a specified period), and the time for payment has not been extended;

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if we fail to observe or perform any other covenant contained in the senior debt securities or the senior indentures, other than a covenant that is specifically dealt with elsewhere in the senior indenture, and our failure continues for 90 days after we receive notice from the trustee or holders of at least a majority in aggregate principal amount of the outstanding senior debt securities of the applicable series; and

if specified events of bankruptcy, insolvency or reorganization occur.

We will describe in each applicable prospectus supplement or free writing prospectus any additional events of default relating to the relevant series of senior debt securities.

If an event of default with respect to senior debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the trustee or the holders of at least a majority in aggregate principal amount of the outstanding senior debt securities of that series, by notice to us in writing, and to the trustee if notice is given by such holders, may declare the unpaid principal, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the unpaid principal, premium, if any, and accrued interest, if any, of each issue of senior debt securities then outstanding shall be due and payable without any notice or other action on the part of the trustee or any holder.

Unless otherwise specified in the prospectus supplement or free writing prospectus applicable to a particular series of senior debt securities originally issued at a discount, the amount due upon acceleration shall include only the original issue price of the senior debt securities, the amount of original issue discount accrued to the date of acceleration and accrued interest, if any.

The holders of a majority in principal amount of the outstanding senior debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the senior indenture. Any waiver shall cure the default or event of default.

Upon certain conditions, declarations of acceleration may be rescinded and annulled and past defaults may be waived by the holders of a majority in aggregate principal amount of all the senior debt securities of such series affected by the default. Furthermore, prior to a declaration of acceleration and subject to various provisions in the senior indenture, the holders of a majority in aggregate principal amount of a series of senior debt securities, by notice to the trustee, may waive an existing default or event of default with respect to such senior debt securities and its consequences, except a default in the payment of principal of, premium, if any, on or interest on such senior debt securities. Upon any such waiver, such default shall cease to exist, and any event of default with respect to such senior debt securities shall be deemed to have been cured, for every purpose of the senior indenture, but no such waiver shall extend to any subsequent or other default or event of default or impair any right consequent thereto.

The holders of a majority in aggregate principal amount of a series of senior debt securities will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to such senior debt securities. However, the trustee may refuse to follow any direction that conflicts with law or the senior indenture that may involve the trustee in personal liability or that the trustee determines in good faith may be unduly prejudicial to the rights of holders of such series of senior debt securities not joining in the giving of such direction and may take any other action it deems proper that is not inconsistent with any such direction received from holders of such series of senior debt securities. A

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holder of the senior debt securities of any series will have the right to institute a proceeding under the senior indentures or the securities or to appoint a receiver or trustee, or to seek other remedies if:

the holder has given written notice to the trustee of a continuing event of default with respect to that series;

the holders of at least a majority in aggregate principal amount of the outstanding senior debt securities of that series have made written request, and such holders have offered reasonable indemnity to the trustee or security satisfactory to it against any loss, liability or expense or to be incurred in compliance with instituting the proceeding as trustee; and

the trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding senior debt securities of that series other conflicting directions within 90 days after the notice, request and offer.

These limitations do not apply to a suit instituted by a holder of senior debt securities if we default in the payment of the principal, premium, if any, or interest on, the senior debt securities, or other defaults that may be specified in the applicable prospectus supplement or free writing prospectus.

Modification and Waiver. We and the trustee may amend, supplement or modify a senior indenture or the senior debt securities without the consent of any holders with respect to the following specific matters:

to fix any ambiguity, defect or inconsistency in the senior indenture or to conform the senior indenture or the senior debt securities to the description of senior debt securities of such series set forth in this prospectus or any applicable prospectus supplement or any free writing supplement;

to convey, transfer, assign, mortgage or pledge any assets as security for the senior debt securities of one or more series;

to add to, delete from or revise the conditions, limitations, and restrictions on the authorized amount, terms, or purposes of issue, authentication and delivery of senior debt securities;

to evidence the succession of another corporation, and the assumption by such successor corporation of our covenants, agreements and obligations under the senior indenture;

to provide for or add guarantors with respect to the senior debt securities of any series;

to establish the form of any certifications required to be furnished pursuant to the terms of the senior indenture or any series of senior debt securities, or to add to the rights of the holders of any series of senior debt securities;

to evidence and provide for the acceptance of appointment hereunder by a successor trustee or to make such changes as shall be necessary to provide for or facilitate the administration of the trusts in the senior indenture by more than one trustee;

to make any change to the senior debt securities of any series, so long as no senior debt securities of such series are outstanding

to provide for uncertificated senior debt securities and to make all appropriate changes for such purpose;

to add to our covenants such new covenants, restrictions, conditions or provisions for the benefit of the holders, to make the occurrence, or the occurrence and the continuance, of a default in any such additional covenants, restrictions, conditions or provisions an event of default or to surrender any right or power conferred to us in the senior indenture; or

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to change anything that does not materially adversely affect the interests of any holder of senior debt securities of any series.

Other amendments and modifications of the senior indenture or the senior debt securities issued may be made, and our compliance with any provision of the senior indenture with respect to any series of senior debt securities may be waived, with the consent of the holders of a majority of the aggregate principal amount of the outstanding senior debt securities of all series affected by the amendment or modification (voting together as a single class); provided, however, that each affected holder must consent to any modification, amendment or waiver that:

extends the stated maturity of any senior debt securities;

reduces the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption or repurchase of any senior debt securities;

reduces the rate or extends the time of payment of interest on any senior debt securities; or

reduces the percentage of senior debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver.

Satisfaction and Discharge. We can elect satisfy and discharge our obligations with respect to one or more series of senior debt securities, except for specified obligations, including obligations to:

register the transfer or exchange of debt securities of the series;

replace stolen, lost or mutilated debt securities of the series;

maintain paying agencies;

hold monies for payment in trust;

recover excess money held by the trustee;

compensate and indemnify the trustee; and

appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the trustee money or government obligations sufficient to pay all the principal of, any premium and interest on, the senior debt securities of the series on the dates payments are due.

Under current U.S. federal income tax law, the deposit and our legal release from the senior debt securities would be treated as though we took back a holder's senior debt securities and gave such holder his or her share of the cash and debt securities or bonds deposited in trust. In that event, such holder could recognize gain or loss on the senior debt securities such holder gives back to us. Holders of the senior debt securities should consult their own advisers with respect to the tax consequences to them of such deposit and discharge, including the applicability and effect of tax laws other than the U.S. federal income tax law.

Information Concerning the Trustee. The trustee, other than during the occurrence and continuance of an event of default under a senior indenture, undertakes to perform only those duties as are specifically set forth in the applicable senior indenture. Upon an event of default under a senior indenture, the trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs.

Subject to this provision, the trustee is under no obligation to exercise any of the powers given it by the senior indentures at the request of any holder of senior debt securities unless it is offered reasonable security and indemnity against the costs, expenses and liabilities that it might incur.

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We may have normal banking relationships with the trustee in the ordinary course of business.

Certain Terms of the Subordinated Debt Securities

Other than the terms of the subordinated indenture and subordinated debt securities relating to subordination or otherwise as described in the prospectus supplement or free writing prospectus relating to a particular series of subordinated debt securities, the terms of the subordinated indenture and subordinated debt securities are identical in all material respects to the terms of the senior indenture and senior debt securities.

Additional or different subordination terms may be specified in the prospectus supplement applicable to a particular series.

Subordination. The indebtedness evidenced by the subordinated debt securities is subordinate to the prior payment in full of all of our senior indebtedness, as defined in the subordinated indenture. During the continuance beyond any applicable grace period of any default in the payment of principal, premium, interest or any other payment due on any of our senior indebtedness, we may not make any payment of principal of, or premium, if any, on or interest on the subordinated debt securities (except for certain sinking fund payments). In addition, upon any payment or distribution of our assets upon any dissolution, winding-up, liquidation or reorganization, the payment of the principal of, or premium, if any, on and interest on the subordinated debt securities will be subordinated to the extent provided in the subordinated indenture in right of payment to the prior payment in full of all our senior indebtedness. Because of this subordination, if we dissolve or otherwise liquidate, holders of our subordinated debt securities may receive less, ratably, than holders of our senior indebtedness. The subordination provisions do not prevent the occurrence of an event of default under the subordinated indenture.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the internal laws of the State of New York.

Ranking of Debt Securities

The senior debt securities will rank equally in right of payment to all our other senior unsecured debt. The subordinated debt securities will be subordinate and junior in priority of payment to certain of our other indebtedness (including senior debt securities) to the extent described in a prospectus supplement or free writing prospectus.

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DESCRIPTION OF UNITS

We may issue, in one more series, units consisting of common stock, preferred stock, debt securities, and/or warrants for the purchase of common stock, preferred stock and/or debt securities in any combination. 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.

We will file as exhibits to the registration statement of which this prospectus is a part, or will incorporate by reference from reports 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 may offer under this prospectus, as well as any related free writing prospectuses and the complete unit agreement and any supplemental agreements that contain the terms of the units.

General

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 being offered, 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 in this section; 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 Capital Stock", "Description of Warrants" and "Description of Debt Securities" will apply to each unit and to any common stock, preferred stock or warrant included in each unit, respectively.

Issuance in Series

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

Enforceability of Rights by Holders of Units

Each unit agent 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 single bank or trust company may act as unit agent for more than one series of units. 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.

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Title

We, and any unit agent 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.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Goodwin Procter LLP, Boston, Massachusetts.

EXPERTS

The consolidated financial statements of Plug Power Inc. and subsidiaries as of December 31, 2015 and 2014, and for each of the years in the three-year period ended December 31, 2015, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2015 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.

The audit report contains an explanatory paragraph that states that the scope of management's assessment of internal control over financial reporting excluded the internal control over financial reporting of HyPulsion U.S. Holding, Inc. ("HyPulsion"), which the Company acquired in July 2015. HyPulsion represented 7.3% of total assets and 0.3% of total revenue included in the Company's consolidated financial statements as of and for the year ended December 31, 2015. KPMG LLP's audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of HyPulsion.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

This prospectus is part of a registration statement that we have filed with the SEC. Certain information in the registration statement has been omitted from this prospectus in accordance with the rules of the SEC. We are a public company and file proxy statements, annual, quarterly and special reports and other information with the SEC. The registration statement, such reports and other information can be inspected and copied at the Public Reference Room of the SEC located at 100 F Street, N.E., Washington D.C. 20549. Copies of such materials, including copies of all or any portion of the registration statement, can be obtained from the Public Reference Room of the SEC at prescribed rates. You can call the SEC at 1-800-SEC-0330 to obtain information on the operation of the Public Reference Room. Such materials may also be accessed electronically by means of the SEC's home page on the Internet (www.sec.gov).

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INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to those documents instead of having to repeat the information in this prospectus. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below that we have filed with the SEC:

our Annual Report on Form 10-K for the year ended December 31, 2015, filed on March 14, 2016;

the information specifically incorporated by reference into our Annual Report on Form 10-K for the year ended December 31, 2015 from our definitive proxy statement on Schedule 14A (other than information furnished rather than filed), which was filed with the SEC on April 15, 2016;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016, filed on May 10, 2016, August 9, 2016 and November 8, 2016, respectively;

our Current Reports on Form 8-K filed on March 4, 2016 (except for information contained therein which is furnished rather than filed), May 23, 2016 and June 30, 2016 (except for information contained therein which is furnished rather than filed); and

the section entitled "Description of Registrant's Securities to be Registered" contained in our Registration Statement on Form 8-A, filed pursuant to Section 12(b) of the Securities Exchange Act of 1934, as amended, or the Exchange Act, on June 24, 2009, as amended by the Amendment No. 1 to Form 8-A filed by the Company with the SEC on May 6, 2011, the Amendment No. 2 to Form 8-A filed by the Company with the SEC on March 19, 2012, the Amendment No. 3 to Form 8-A filed by the Company with the SEC on February 13, 2013 and the Amendment No. 5 to Form 8-A filed by the Company with the SEC on May 20, 2013).

We also incorporate by reference into this prospectus all documents (other than current reports furnished under Item 2.02 or Item 7.01 of Form 8-K and exhibits filed on such form that are related to such items) that are filed by us with the SEC pursuant to Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act (i) after the date of the initial filing of the registration statement of which this prospectus is a part and prior to effectiveness of the registration statement, or (ii) after the date of this prospectus, in each case except as to any portion of any future report or document that is not deemed filed under such provisions, until we sell all of the shares covered by this prospectus or the sale of shares by us pursuant to this prospectus is terminated.

You may access our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to any of these reports, free of charge on the SEC's website. You may also access the documents incorporated by reference on our website at www.plugpower.com. Other than the foregoing documents incorporated by reference, the information contained in, or that can be accessed through, our website is not part of this prospectus.

In addition, we will furnish without charge to each person, including any beneficial owner, to whom a prospectus is delivered, on written or oral request of such person, a copy of any or all of the documents incorporated by reference in this prospectus (not including exhibits to such documents, unless such exhibits are specifically incorporated by reference in this prospectus or into such documents). Such requests may be directed to Corporate Secretary, Plug Power Inc., 968 Albany-Shaker Road, Latham, New York, 12110, or call (518) 782-7700.

This prospectus is part of a registration statement we filed with the SEC. We have incorporated exhibits into this registration statement. You should read the exhibits carefully for provisions that may be important to you.

Shares of Series D Convertible Preferred Stock Warrants to Purchase Shares of Common Stock

Series D Convertible Preferred Stock Warrants to Purchase Shares of Common Stock

PROSPECTUS SUPPLEMENT

Oppenheimer & Co.

December , 2016