

PLUG POWER INC
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SUBJECT TO COMPLETION, DATED MAY 24, 2011

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 they are not soliciting an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Prospectus Supplement
(To Prospectus Dated April 1, 2011)

Shares of Common Stock

Warrants to Purchase up to	Shares of Common Stock
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We are offering _____ shares of our common stock and warrants to purchase up to _____ shares of our common stock in this offering (and the shares of common stock issuable from time to time upon exercise of these warrants). Each share of common stock is being sold together with 0.75 of a 5-year warrant to purchase one share of common stock at an exercise price of \$. The shares of common stock and warrants will be issued separately.

Our common stock currently trades on the NASDAQ Capital Market under the symbol "PLUGD" until June 20, 2011 as the result of our one - for - ten (1 for 10) reverse stock split described below. Beginning on June 21, 2011, our

common stock will resume trading on the NASDAQ Capital Market under the symbol "PLUG". The last reported sale price of our common stock on the NASDAQ Capital Market on May 23, 2011 was \$3.24 per share. 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.

On May 19, 2011, we effected a one-for-ten (1 for 10) reverse stock split of our outstanding common stock. Our common stock began trading on the NASDAQ Capital Market on a split-adjusted basis on May 20, 2011.

Investing in our securities involves risks. See Risk Factors beginning on page S-5 of this prospectus supplement.

	Per Share	Per Warrant	Total
Public offering price	\$	\$	\$
Underwriting discounts and commissions ¹	\$	\$	\$
Proceeds, before expenses, to Plug Power Inc.	\$	\$	\$

¹ Does not include a corporate finance fee in the amount of 2% of the gross proceeds. In addition, we have agreed to reimburse the underwriter for certain of its expenses as described under Underwriting on page S-11 of this prospectus supplement.

We have granted the underwriters a 45-day option to purchase up to additional shares of common stock and/or additional warrants to purchase up to shares of common stock from us at the public offering price for each security, less underwriting discounts and commissions, to cover over-allotments, if any.

We estimate the expenses of this offering, excluding underwriting discounts and commissions and the corporate finance fee, will be approximately \$300,000.

Roth Capital Partners LLC expects to deliver the shares on or about , 2011.

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.

Roth Capital Partners

The date of this prospectus supplement is , 2011

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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 (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 of Certain Information by Reference* and *Where You Can Find Additional Information*.

You should rely only on this prospectus supplement, the accompanying prospectus 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 and the accompanying prospectus. 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 or the accompanying prospectus is accurate as of any date other than as of the date of this prospectus supplement or the accompanying 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, 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 or the accompanying prospectus in that jurisdiction. Persons who come into possession of this prospectus supplement or the accompanying prospectus 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 or the accompanying prospectus applicable to that jurisdiction.

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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 therein 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 fuel cell systems for the industrial off-road (forklift or material handling) market. We have also developed products for the back-up and stationary power markets worldwide. Effective April 1, 2010, we were no longer considered a development stage enterprise since our principal operations began to provide more than insignificant revenues as we received orders from repeat customers, increased our customer base and had a significant backlog. Prior to April 1, 2010, we were considered a development stage enterprise because substantially all of our resources and efforts were aimed at the discovery of new knowledge that could lead to significant improvement in fuel cell reliability and durability, and the establishment, expansion and stability of markets for our products.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies and fuel cell/battery hybrid technologies, 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 (LPG), natural gas, propane, methanol, ethanol, gasoline or biofuels. Hydrogen can also be obtained from the electrolysis of water. Hydrogen can be purchased directly from industrial gas providers or can be produced on-site at consumer locations.

We concentrate our efforts on developing, manufacturing and selling our hydrogen-fueled PEM GenDrive® products on commercial terms for industrial off-road (forklift or material handling) applications, with a focus on multi-shift high volume manufacturing and high throughput distribution sites.

We have previously invested in development and sales activities for low-temperature remote-prime power GenSys® products and our GenCore® product, which is a hydrogen fueled PEM fuel cell system to provide back-up power for critical infrastructure. While we will continue to service and support GenSys and/or GenCore products on a limited basis, our main focus is our Gendrive product line.

We sell our products worldwide, with a primary focus on North America, through our direct product sales force, original equipment manufacturers (OEMs) and their dealer networks. We sell to business, industrial and government customers.

We were organized in the State of Delaware on June 17, 1997. We were originally a joint venture between Edison Development Corporation and Mechanical Technology Incorporated. In 2007, we acquired all the issued and outstanding equity of Cellex Power Products, Inc. (Cellex) and General Hydrogen Corporation (General Hydrogen). Through these acquisitions, and our continued GenDrive product development efforts, we became the first fuel cell company to offer a complete suite of Class 1 - sit-down counterbalance trucks, Class 2 - stand-up reach trucks and Class 3 - rider pallet trucks products.

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 contained on, or accessible through, our website is not part of this prospectus supplement or the accompanying prospectus.

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Recent Developments

On May 19, 2011, we filed an amendment to our certificate of incorporation with the Secretary of State of the State of Delaware to effect a one-for-ten (1 for 10) reverse stock split of our outstanding common stock. Our common stock began trading on the NASDAQ Capital Market on a split-adjusted basis on May 20, 2011.

After giving effect to the reverse stock split, as of May 23, 2011, there were 245,000,000 shares of our common stock and 5,000,000 shares of our preferred stock authorized and 13,292,384 shares of our common stock outstanding (subject to reduction to account for the cash out of fractional shares) and no shares of preferred stock outstanding. After giving effect to the reverse stock split, there were 1,480,606 shares of common stock issuable upon the exercise of stock options and the vesting of restricted stock awards, in each case outstanding as of May 23, 2011 (subject to increase to account for the rounding up of fractional shares).

The following table sets forth, as of the dates and for the periods indicated and retroactively adjusted for the reverse stock split, the number of shares of our common stock issued, the number of shares of our common stock held in treasury, our basic and diluted loss per share and the weighted average number of shares outstanding.

	As of or for the quarter ended 3/31/11	As of or for the quarter ended 3/31/10	As of or for the year ended 12/31/10	As of or for the year ended 12/31/09	As of or for the year ended 12/31/08
Shares of common stock issued	13,443,403	13,280,019	13,369,924	13,059,124	12,816,400
Shares of common stock held in treasury	164,936	180,062	180,449	98,620	40,211
Basic and diluted loss per share	(\$0.55)	(\$0.81)	(\$3.58)	(\$3.15)	(\$13.62)
Weighted average shares of common stock outstanding	13,225,095	13,044,057	13,123,162	12,911,066	8,938,348

THE OFFERING

Common stock offered by us	shares
Common stock outstanding following the offering	shares
Warrants we are offering	We are offering warrants to purchase up to shares of common stock, which will be exercisable during the period commencing on the date of original issuance and ending five years from such date 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.
Over-allotment option	shares of common stock and/or warrants to purchase shares of common stock.
Use of proceeds	We intend to use the net proceeds from this offering for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, commercial expenditures, acquisitions of new technologies or businesses that are complementary to our current technologies or business focus, and investments.
NASDAQ Capital Market Symbol	PLUGD (until June 20, 2011) and PLUG (beginning June 21, 2011)
Risk factors	Investing in our securities involves risks. See Risk Factors beginning on page S-5 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.

The number of shares of our common stock to be outstanding after the offering is based on 13,292,384 shares of common stock outstanding as of May 23, 2011 and excludes:

- 1,071,280 shares of common stock issuable upon the exercise of stock options outstanding as of May 23, 2011; and
- 409,326 shares of common stock issuable upon the exercise of unvested restricted stock awards outstanding as of May 23, 2011.

Unless we specifically state otherwise, the share information in this prospectus supplement gives effect to the one-for-ten (1 for 10) reverse stock split of our outstanding common stock effected on May 19, 2011, subject to adjustments to account for fractional shares and rounding.

Except as otherwise indicated, all information in this prospectus supplement assumes no exercise by the underwriter of its over-allotment option.

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RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the risks and all other information contained in this prospectus supplement and the accompanying prospectus, including the risk factors in the section entitled "Risk Factors" in the accompanying prospectus and in the documents incorporated by reference herein and therein. You should also refer to the other information in this prospectus supplement and the accompanying prospectus, including our financial statements and the related notes incorporated by reference in this prospectus supplement and the accompanying prospectus.

In addition to the risk factors set forth below, please see "Item 1A. Risk Factors" beginning on page 10 of our Annual Report on Form 10-K for the year ended December 31, 2010, and on page 31 of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2011, which are incorporated herein by reference.

Risks Related to this Offering

Our management will have broad discretion in the use of the net proceeds we receive in this offering and might not apply the proceeds in ways that increase the value of your investment.

Our management will have broad discretion over the use of our net proceeds from this offering, and you will be relying on the judgment of our management regarding the application of these proceeds. Our management might not apply our net proceeds in ways that ultimately increase the value of your investment and we might not be able to yield a significant return, if any, on any investment of these net proceeds. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our products and cause the price of our common stock to decline.

There may be future sales or other dilution of our equity, which may adversely affect the market price of our common stock.

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.

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, the 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. The overall weakness in the economy has recently contributed to the extreme volatility of the markets which may have an affect on the market price of our

common stock.

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 and warrants 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.

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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. 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.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein contain forward-looking statements regarding our future performance. All forward-looking information is inherently uncertain and actual results may differ materially from assumptions, estimates or expectations reflected or contained in the forward-looking statements as a result of various factors, including those set forth under **Risk Factors** in this prospectus supplement and elsewhere in this prospectus supplement, the accompanying prospectus, and the documents incorporated by reference herein and therein. In addition, such **Risk Factors** may be updated from time to time by our filings under the Securities Exchange Act of 1934. Forward-looking statements convey our current expectations or forecasts of future events. All statements contained in this prospectus supplement and the accompanying prospectus other than statements of historical fact are forward-looking statements. Forward-looking statements include statements regarding our future financial position, business strategy, budgets, projected costs, plans and objectives of management for future operations. The words *may*, *continue*, *estimate*, *intend*, *plan*, *will*, *project*, *expect*, *anticipate* and similar expressions may identify forward-looking statements, but the absence of these words does not necessarily mean that a statement is not forward-looking. With respect to the forward-looking statements, we claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995.

These forward-looking statements speak only as of the date each such statement is made. Unless required by law, we undertake no obligation to publicly update or revise any forward-looking statements to reflect new information or future events or otherwise, and we do not intend to provide such updates.

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USE OF PROCEEDS

We expect to receive approximately \$ million in net proceeds from this offering, or approximately \$ million if the underwriter exercises its over-allotment option in full. Net proceeds is what we expect to receive after paying the expenses of this offering, including the underwriting discounts and commissions and the corporate finance fee, 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 from this offering for general corporate purposes, which may include working capital, capital expenditures, research and development expenditures, commercial expenditures, acquisitions of new technologies or businesses that are complementary to our current technologies or business focus, and investments

As of the date of this prospectus supplement, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Until we use the net proceeds of this offering, we intend to invest the funds in short-term, investment grade, interest-bearing securities.

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DILUTION

If you invest in our common stock and warrants, your ownership interest 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 March 31, 2011 was approximately \$9.8 million, or \$0.74 per share of our common stock, based upon 13,278,467 shares of our common stock outstanding. 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 March 31, 2011. Dilution in net tangible book value per share represents the difference between the amount per share paid by purchasers of shares of common stock and warrants in this offering and the net tangible book value per share of our common stock immediately after this offering.

After giving effect to the sale of shares of our common stock and warrants to purchase shares of our common stock in this offering at the public offering price of \$ per share and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, including the corporate finance fee, our as adjusted net tangible book value as of March 31, 2011 would have been approximately \$ million, or \$ per share. This represents an immediate increase in net tangible book value of \$ per share to existing stockholders and immediate dilution in net tangible book value of \$ per share to new investors purchasing our common stock and warrants in this offering at the public offering price. The following table illustrates this dilution on a per share basis:

Public offering price per share		\$
Net tangible book value per share as of March 31, 2011	\$0.74	
Increase in net tangible book value per share attributable to this offering	\$	
Adjusted net tangible book value per share as of March 31, 2011 after giving effect to this offering		\$
Dilution in net tangible book value per share to new investors		\$

If the underwriters exercise in full their option to purchase additional shares of common stock and warrants to purchase shares of common stock at the public offering price, the as adjusted net tangible book value after this offering would have been \$ per share, representing an increase in net tangible book value of \$ per share to existing stockholders and immediate dilution in net tangible book value of \$ per share to new investors purchasing

our common stock and warrants in this offering at the public offering price.

The foregoing table and discussion is based on 13,278,467 shares of common stock outstanding as of March 31, 2011 and excludes:

- 442,585 shares of common stock issuable upon the exercise of stock options outstanding as of March 31, 2011;
- 409,326 shares of common stock issuable upon the exercise of unvested restricted stock awards outstanding as of March 31, 2011; and
- warrants to purchase up to shares of common stock in this offering.

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.

The share information and net tangible book value set forth above gives effect to the one-for-ten (1 for 10) reverse stock split of our outstanding common stock effected on May 19, 2011, subject to adjustments to account for fractional shares and rounding.

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DESCRIPTION OF SECURITIES

In this offering, we are offering _____ shares of common stock and warrants to purchase up to _____ shares of common stock. Each share of common stock is being sold together with 0.75 of a 5-year warrant to purchase one share of common stock at an exercise price of \$. The shares of common stock and warrants will be issued separately. This prospectus also relates to the offering of shares of our common stock upon exercise, if any, of the warrants.

Common Stock

The material terms and provisions of our common stock are described under the caption Description of Capital Stock starting on page 7 of the accompanying prospectus.

Warrants

The material terms and provisions of the warrants being issued in this offering are summarized below. The following description is subject to, and qualified in its entirety by, the form of warrant, which will be filed as an exhibit to a Current Report on Form 8-K to be filed by us with the SEC in connection with this offering. You should review a copy of the form of warrant for a complete description of the terms and conditions applicable to the warrants.

Term. The warrants are exercisable beginning on the date of original issuance and at any time up to the date that is 5 years after such date.

Anti-Dilution Protection. The warrants contain weighted average anti-dilution protection upon the issuance of any common stock, securities convertible into common stock or certain other issuances at a price below the then-existing exercise price of the warrants, with certain exceptions. The terms of the warrants, including these anti-dilution protections, may make it difficult for us to raise additional capital at prevailing market terms in the future.

Exercise Price. The exercise price of the warrants is \$ per share of common stock. The exercise price is subject to appropriate adjustment in the event of certain stock dividends and distributions, stock splits, stock combinations, stock issuances, reclassifications or similar events affecting our common stock.

Exercisability. Holders may exercise the warrants beginning on the date of issuance and at any time during the applicable term of the warrant. The warrants will be exercisable, at the option of each holder, in whole or in part, by delivering to us a duly executed exercise notice accompanied by payment in full for the number of shares of our common stock purchased upon such exercise (except in the case of a cashless exercise as discussed below). A holder (together with its affiliates) may not exercise any portion of the warrant to the extent that the holder would own more than 4.9% of the outstanding common stock after exercise, except that upon at least 61 days prior notice from the holder to us, the holder may increase the amount of ownership of outstanding stock after exercising the holder's warrants up to 9.9% of the number of shares of our common stock outstanding immediately after giving effect to the exercise, as such percentage ownership is determined in accordance with the terms of the warrants.

Cashless Exercise. If, at the time a holder exercises its warrant, there is no effective registration statement registering, or the prospectus contained therein is not available for an issuance of the shares underlying the warrant to the holder, then in lieu of making the cash payment otherwise contemplated to be made to the Company upon such exercise in payment of the aggregate exercise price, the holder may elect instead to receive upon such exercise (either in whole or in part) the net number of shares of common stock determined according to a formula set forth in the warrant.

Transferability. Subject to applicable laws and the restriction on transfer set forth in the warrant, the warrant may be transferred at the option of the holder upon surrender of the warrant to us together with the appropriate instruments of transfer.

Authorized Shares. During the period the warrants are outstanding, we will reserve from its authorized and unissued common stock a sufficient number of shares to provide for the issuance of shares of common stock underlying the warrants upon the exercise of the warrants.

Exchange Listing. We do not plan on making an application to list the warrants on the NASDAQ Capital Market, any national securities exchange or other nationally recognized trading system.

Fundamental Transactions. In the event of any fundamental transaction, as described in the warrants and generally including any merger with or into another entity, sale of all or substantially all of our assets, tender offer or exchange offer, or reclassification of our common stock, then upon any subsequent exercise of a warrant, the holder shall have the right to receive as alternative consideration, for each share of our common stock that would have been issuable upon such exercise immediately prior to the occurrence of such fundamental transaction, the number of shares of common stock of the successor or acquiring corporation or of Plug Power, if it is the surviving corporation, and any additional consideration receivable upon or as a result of such transaction by a holder of the number of shares of our common stock for which the warrant is exercisable immediately prior to such event. In addition, in the event of a fundamental transaction in which the amount of the alternate consideration is less than the exercise price of the warrant, then we or any successor entity shall pay at the holder's option, exercisable at any time concurrently with or within ninety (90) days after the consummation of the fundamental transaction, an amount of cash equal to the value of the warrant as determined in accordance with the Black Scholes option pricing model.

Right as a Stockholder. Except as otherwise provided in the warrants or by virtue of such holder's ownership of shares of our common stock, the holders of the warrants do not have the rights or privileges of holders of our common stock, including any voting rights, until they exercise their warrants.

Waivers and Amendments. Any term of the warrants issued in the offering may be amended or waived with our written consent and the written consent of the holder of the warrant.

Exercisability. Holders may exercise the warrants beginning on the date of issuance and at any time during the app

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Exercisability. Holders may exercise the warrants beginning on the date of issuance and at any time during the app

UNDERWRITING

We have entered into an underwriting agreement with Roth Capital Partners, LLC with respect to the shares of common stock and warrants, subject to this offering. Subject to certain conditions, we have agreed to sell to the underwriter, and the underwriter has agreed to purchase, the number of shares of common stock and corresponding warrants provided below opposite its name.

Underwriter	Number of Shares	Number of of Common Stock Warrants
Roth Capital Partners, LLC		
Total		

The underwriter is offering the shares of common stock and corresponding warrants, subject to its acceptance of the shares of common stock and corresponding 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 common stock and corresponding warrants offered by this prospectus supplement and the related prospectus 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 common stock and warrants if any such shares and warrants are taken. However, the underwriter is not required to take or pay for the shares of common stock and/or warrants covered by the underwriter's over-allotment option described below.

Over-Allotment Option

We have granted the underwriter an option, exercisable for 45 days from the date of this prospectus, to purchase up to an aggregate of additional shares of common stock and/or up to additional warrants to cover over-allotments, if any, at the public offering price set forth on the cover page of this prospectus supplement, less underwriting discounts and commissions. The underwriter may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock and the warrants offered by this prospectus supplement and the accompanying prospectus.

Commission and Expenses

The underwriter has advised us that it proposes to offer the shares of common stock and warrants to the public at the initial public offering prices set forth on the cover page of this prospectus supplement and to certain dealers at that price less a concession not in excess of \$ per share of common stock and corresponding warrant. The underwriter may allow, and certain dealers may reallocate, a discount from the concession not in excess of \$ per share of common stock and corresponding warrant to certain brokers and dealers. After this offering, the initial public offering price, concession and reallocation to dealers may be changed by the underwriter. No such change shall change the amount of proceeds to be received by us as set forth on the cover page of this prospectus supplement. The per share of common stock and corresponding warrant are offered by the underwriter as stated herein, subject to receipt and acceptance by it and subject to its right to reject any order in whole or in part. The underwriter has informed us that it does not intend to confirm sales to any accounts over which it exercises discretionary authority.

The following table shows the underwriting discounts and commissions payable to the underwriter by us in connection with this offering. Such amounts are shown assuming both no exercise and full exercise of the underwriter's over-allotment option to purchase additional shares and/or warrants.

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	Per Share of Common Stock and Corresponding Warrant ¹	Total Without Exercise of Over-Allotment Option	Total With Exercise of Over-Allotment Option
Public offering price	\$	\$	\$
Underwriting discounts and commissions payable by us	\$	\$	\$

¹ Does not include the corporate finance fee in the amount of 2% of the gross proceeds.

We estimate that expenses payable by us in connection with this offering, other than the underwriting discounts and commissions referred to above, will be approximately \$300,000. We have agreed to reimburse the underwriter for certain out-of-pocket expenses not to exceed \$125,000 for all expenses, including attorneys fees and expenses. In no event will the total compensation payable to the underwriter and any other member of the Financial Industry Regulatory Authority, Inc. (or FINRA) or independent broker-dealer (including any financial advisor) in connection with the sale of the securities offered hereby exceed 8.0% of the gross proceeds of this offering.

Indemnification

We have agreed to indemnify the underwriter against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or the Securities Act, and liabilities arising from breaches of representations and warranties contained in the underwriting agreement, or to contribute to payments that the underwriter may be required to make in respect of those liabilities.

Lock-up Agreements

We, our officers and directors have agreed, subject to limited exceptions, for a period of 90 days after the date of the underwriting agreement, not to offer, sell, contract to sell, pledge, grant any option to purchase, make any short sale or otherwise dispose of, directly or indirectly any shares of common stock or any securities convertible into or exchangeable for our common stock either owned as of the date of the underwriting agreement or thereafter acquired without the prior written consent of the underwriter. This 90-day period may be extended if (1) during the last 17 days of the 90-day period, we issue an earnings release or material news or a material event regarding us occurs or (2) prior to the expiration of the 90-day period, we announce that we will release earnings results during the 16-day

period beginning on the last day of the 90-day period, then the period of such extension will be 18 days, beginning on the issuance of the earnings release or the occurrence of the material news or material event. If after any announcement described in clause (2) of the preceding sentence, we announce that we will not release earnings results during the 16-day period, the lock-up period shall expire the later of the expiration of the 90-day period and the end of any extension of such period made pursuant to clause (1) of the preceding sentence. The underwriter may, in its sole discretion and at any time or from time to time before the termination of the lock-up period, without notice, release all or any portion of the securities subject to lock-up agreements.

In addition, our largest shareholder is obligated not to sell or otherwise dispose of any shares of common stock held by such shareholder for a period of up to 150 days pursuant to the terms of an existing registration rights agreement entered into with the company.

Electronic Distribution

This prospectus supplement and the related prospectus in electronic format may be made available on websites or through other online services maintained by the underwriter, or by its affiliates. Other than this prospectus supplement and the related prospectus in electronic format, the information on the underwriter's website and any information contained in any other website maintained by the underwriter is not part of this prospectus supplement, the related prospectus or the registration statement of which this prospectus supplement and the related prospectus forms a part, has not been approved and/or endorsed by us or the underwriter in its capacity as underwriter, and should not be relied upon by investors.

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Price Stabilization, Short Positions and Penalty Bids

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

- Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum.
- Over-allotment involves sales by the underwriter of shares in excess of the number of shares the underwriter is obligated to purchase, which creates a syndicate short position. The short position may be either a covered short position or a naked short position. In a covered short position, the number of shares over-allotted by the underwriter is not greater than the number of shares that it may purchase in the over-allotment option. In a naked short position, the number of shares involved is greater than the number of shares in the over-allotment option. The underwriter may close out any covered short position by either exercising its over-allotment option and/or purchasing shares in the open market.
- Syndicate covering transactions involve purchases of shares of the common stock in the open market after the distribution has been completed in order to cover syndicate short positions. In determining the source of shares to close out the short position, the underwriter will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which it may purchase shares through the over-allotment option. If the underwriter sells more shares than could be covered by the over-allotment option, a naked short position, the position can only be closed out by buying shares in the open market. A naked short position is more likely to be created if the underwriter is concerned that there could be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering.
- Penalty bids permit the underwriter to reclaim a selling concession from a syndicate member when the common stock originally sold by the syndicate member is purchased in a stabilizing or syndicate covering transaction to cover syndicate short positions.

These stabilizing transactions, syndicate covering transactions and penalty bids may have the effect of raising or maintaining the market price of our common stock or preventing or retarding a decline in the market price of the common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. Neither we nor the underwriter makes any representation or prediction as to the direction or magnitude of any effect that the transactions described above may have on the price of the common stock. In addition, neither

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we nor the underwriter makes any representations that the underwriter will engage in these stabilizing transactions or that any transaction, once commenced, will not be discontinued without notice.

Listing and Transfer Agent

Our common stock is listed on the NASDAQ Capital Market and currently trades under the symbol `PLUGD` until June 20, 2011 as the result of our one - for - ten (1 for 10) reverse stock split. Beginning on June 21, 2011, our common stock will resume trading on the NASDAQ Capital Market under the symbol "PLUG." The transfer agent of our common stock is American Stock Transfer & Trust Company.

We do not plan on making an application to list the warrants on the NASDAQ Capital Market, any national securities exchange or other nationally recognized trading system. We will act as the registrar and transfer agent for the warrants.

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Other

The underwriter and/or its affiliates have provided, and may in the future provide, various investment banking and other financial services for us for which services it has received and, may in the future receive, customary fees. Except for services provided in connection with this offering, the underwriter has not provided any investment banking or other financial services during the 180-day period preceding the date of this prospectus supplement and we do not expect to retain the underwriter to perform any investment banking or other financial services for at least 90 days after the date of this prospectus supplement.

NOTICE TO INVESTORS

Notice to Investors in the United Kingdom

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 securities which are the subject of the offering contemplated by this prospectus supplement and the related prospectus may not be made in that Relevant Member State except that an offer to the public in that Relevant Member State of any such securities 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 legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;

(b) to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000 and (3) an annual net turnover of more than €50,000,000, as shown in its last annual or consolidated accounts;

(c) by the underwriter to fewer than 100 natural or legal persons (other than qualified investors as defined in the Prospectus Directive); or

(d) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of these securities shall result in a requirement for the publication by the issuer 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 of the securities 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 such securities to be offered so as to enable an investor to decide to purchase any such

securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State and the expression Prospectus Directive means Directive 2003/71/EC and includes any relevant implementing measure in each Relevant Member State.

The underwriter has represented, warranted and agreed that:

(a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of any of the securities in circumstances in which section 21(1) of the FSMA does not apply to the issuer; and

(b) it has complied with and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the securities in, from or otherwise involving the United Kingdom.

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European Economic Area

In particular, this document does not constitute an approved prospectus in accordance with European Commission's Regulation on Prospectuses no. 809/2004 and no such prospectus is to be prepared and approved in connection with this offering. Accordingly, in relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (being the Directive of the European Parliament and of the Council 2003/71/EC and including any relevant implementing measure in each Relevant Member State) (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) an offer of securities to the public may not be made in that Relevant Member State prior to the publication of a prospectus in relation to such securities which has been approved by the competent authority in that Relevant Member State or, where appropriate, approved in another Relevant Member State and notified to the competent authority in that Relevant Member State, all in accordance with the Prospectus Directive, except that it may, with effect from and including the Relevant Implementation Date, make an offer of securities to the public in that Relevant Member State at any time:

- to legal entities which are authorized or regulated to operate in the financial markets or, if not so authorized or regulated, whose corporate purpose is solely to invest in securities;
- to any legal entity which has two or more of (1) an average of at least 250 employees during the last financial year; (2) a total balance sheet of more than €43,000,000; and (3) an annual net turnover of more than €50,000,000, as shown in the last annual or consolidated accounts; or
- in any other circumstances which do not require the publication by the Issuer of a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of securities to the public in relation to any of the securities 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 the securities to be offered so as to enable an investor to decide to purchase or subscribe for the securities, as the same may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. For these purposes the shares and warrants offered hereby are securities.

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, New York, New York. Certain legal matters will be passed upon for the underwriter by Lowenstein Sandler P.C., Roseland, New Jersey.

EXPERTS

The consolidated financial statements of Plug Power Inc. and subsidiaries as of December 31, 2010 and 2009, and for each of the years in the three-year period ended December 31, 2010, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2010 have been incorporated by reference herein in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon authority of said firm as experts in accounting and auditing.

The audit report covering the December 31, 2010 consolidated financial statements refers to a change in the method of accounting for revenue arrangements with multiple-deliverables entered into or substantially modified after January 1, 2010.

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 supplement. The information incorporated by reference is considered to be part of this prospectus supplement, 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, 2010, filed on March 31, 2011;
- our Quarterly Report on Form 10-Q for the quarterly ended March 31, 2011, filed on May 13, 2011;
- our Current Reports on Form 8-K filed on February 2, 2011, May 6, 2011, May 13, 2011 (as amended on May 16, 2011) and May 19, 2011;
- our Proxy Statement on Schedule 14A filed with the SEC on April 11, 2011; 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 Exchange Act on June 24, 2009 (as amended on May 6, 2011).

We also incorporate by reference into this prospectus supplement 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 after the date of this prospectus

supplement.

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 supplement or the accompanying prospectus.

In addition, we will furnish without charge to each person, including any beneficial owner, to whom a prospectus supplement 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 supplement (not including exhibits to such documents, unless such exhibits are specifically incorporated by reference in this prospectus supplement 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.

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The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities and it is not soliciting offers to buy these securities in any jurisdiction where such offer or sale is not permitted.

Subject to Completion, Dated April 1, 2011

PROSPECTUS

PLUG POWER INC.

\$100,000,000

Common Stock

Preferred Stock

Warrants

Units

From time to time, we may offer up to \$100,000,000 of any combination of the securities described in this prospectus, either individually or in units. The warrants 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

The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy

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. 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 March 31, 2011, the last reported sale price of our common stock on the NASDAQ Capital Market was \$0.76. 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 4 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.

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 _____, 2011.

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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, either individually or in units, in one or more offerings, up to a total dollar amount of \$100,000,000. 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**.

The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy

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** similar references refer to Plug Power Inc. and its subsidiaries; and the term **securities** refers collectively to our common stock, preferred stock or warrants to purchase common stock or preferred stock, 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 fuel cell systems for the industrial off-road (forklift or material handling) market. We have also developed products for the back-up and stationary power markets worldwide. Effective April 1, 2010, we were no longer considered a development stage enterprise since our principal operations began to provide more than insignificant revenues as we received orders from repeat customers, increased our customer base and had a significant backlog. Prior to April 1, 2010, we were considered a development stage enterprise because substantially all of our resources and efforts were aimed at the discovery of new knowledge that could lead to significant improvement in fuel cell reliability and durability, and the establishment, expansion and stability of markets for our products.

We are focused on proton exchange membrane, or PEM, fuel cell and fuel processing technologies and fuel cell/battery hybrid technologies, 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 (LPG), natural gas, propane, methanol, ethanol, gasoline or biofuels. Hydrogen can also be obtained from the electrolysis of water. Hydrogen can be purchased directly from industrial gas providers or can be produced on-site at consumer locations.

The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy

We concentrate our efforts on developing, manufacturing and selling our hydrogen-fueled PEM GenDrive® products on commercial terms for industrial off-road (forklift or material handling) applications, with a focus on multi-shift high volume manufacturing and high throughput distribution sites.

We have previously invested in development and sales activities for low-temperature remote-prime power GenSys® products and our GenCore® product, which is a hydrogen fueled PEM fuel cell system to provide back-up power for critical infrastructure. While we will continue to service and support GenSys and/or GenCore products on a limited basis, our main focus is our Gendrive product line.

We sell our products worldwide, with a primary focus on North America, through our direct product sales force, original equipment manufacturers (OEMs) and their dealer networks. We sell to business, industrial and government customers.

We were organized in the State of Delaware on June 27, 1997. We were originally a joint venture between Edison Development Corporation and Mechanical Technology Incorporated. In 2007, we acquired all the issued and outstanding equity of Cellex Power Products, Inc. (Cellex) and General Hydrogen Corporation (General Hydrogen). Through these acquisitions, and our continued GenDrive product development efforts, we became the first fuel cell company to offer a complete suite of Class 1 - sit-down counterbalance trucks, Class 2 - stand-up reach trucks and Class 3 - rider pallet trucks products. 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. Our current and future annual reports on Form 10-K, future quarterly reports on Form 10-Q, current reports on Form 8-K and other filings with the SEC are available, free of charge, through our website as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC. Our SEC filings can be accessed through the investor relations section of our website. The information contained on, or accessible through, our website is not intended to be part of this or any other report we file with, or furnish to, the SEC. 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, either individually or in units, with a total value of up to \$100,000,000 from time to time 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 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.

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;

The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy

applicable fees, discounts and commissions to be paid to them;

details regarding over-allotment options, 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.

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 and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, 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.

Units. We may issue, in one or more series, units consisting of common stock, preferred stock, 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 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.

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, 2010, filed with the SEC on March 31, 2011, which is 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.

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, 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 the additional capital we expect we will need to raise to fund our operations beyond the first quarter of 2012 may not be available; 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 pending orders may not convert to purchase orders, in whole or in part; the risk that our continued failure to comply with NASDAQ's listing standards may severely limit our ability to raise additional capital; the cost and timing of developing, marketing and selling our products and our ability to raise the necessary capital to fund such costs; the ability to achieve the forecasted gross margin on the sale of our products; the actual net cash used for operating expenses may exceed the projected net cash for operating expenses; the cost and availability of fuel and fueling infrastructures for our products; market acceptance of our GenDrive systems; our ability to establish and maintain relationships with third parties with respect to product development, manufacturing, distribution and servicing and the supply of key product components; the cost and availability of components and parts for our products; our ability to develop commercially viable products; our ability to reduce product and manufacturing costs; our ability to successfully expand our product lines; our ability to improve system reliability for our GenDrive systems; 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; 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.

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 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, or directly to one or more purchasers. 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 offer and sell securities, we will provide a prospectus supplement that will set forth the terms of the offering of the securities, including:

the name or names of the underwriters, if any;

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the purchase price of the securities and the proceeds we will receive from the sale;

any over-allotment 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 reallocated 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. 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. Any public offering price and any discounts or concessions allowed or reallocated 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.

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 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

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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 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.

DESCRIPTION OF CAPITAL STOCK

General

Our authorized capital stock consists of 245,000,000 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 March 31, 2011, there were 132,784,673 shares of our common stock outstanding and no shares of 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, 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. 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 holders of shares 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

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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.

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.

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.

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;

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

On June 22, 2009, we adopted 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 the 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, the company or a large block of our common stock. The following summarizes material terms of the 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 previously filed with the Commission.

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

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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 common stock of the company (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 the company, or merges with and into the company and we are the continuing or surviving corporation of such merger and, in connection with such merger, all or part of the 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 the company, stockholders may, depending upon the circumstances, recognize taxable income in the event that the preferred share purchase rights become exercisable for units, other securities of the company, other consideration or for common stock of an acquiring company.

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

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company, LLC. The transfer agent and registrar's address is 59 Maiden Lane, New York, New York 10038. 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.

DESCRIPTION OF WARRANTS

We may issue warrants for the purchase of common stock and/or preferred stock in one or more series. We may issue warrants independently or together with common stock and/or preferred stock, 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

We will describe in the applicable prospectus supplement the terms of the series of warrants being offered, including:

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.

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.

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.

DESCRIPTION OF UNITS

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

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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** and **Description of Warrants** 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.

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, 2010 and 2009, and for each of the years in the three-year period ended December 31, 2010, and management's assessment of the effectiveness of internal control over financial reporting as of December 31, 2010 have been incorporated by reference herein and in the Registration Statement in reliance upon the reports of KPMG LLP, independent registered public accounting firm, incorporated by reference herein, and upon authority of said firm as experts in accounting and auditing.

The information in this prospectus is not complete and may be changed. We may not sell or accept an offer to buy

The audit report covering the December 31, 2010 consolidated financial statements refers to a change in the method of accounting for revenue arrangements with multiple-deliverables entered into or substantially modified after January 1, 2010.

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).

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, 2010, filed on March 31, 2011;

our Current Report on Form 8-K filed on February 2, 2011; 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 Exchange Act on June 24, 2009.

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 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.

