PLUG POWER INC
Form S-1
January 15, 2013

As filed with the Securities and Exchange Commission on January 15, 2013

Registration No. 333-

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM S-1

REGISTRATION STATEMENT

UNDER

THE SECURITIES ACT OF 1933

PLUG POWER INC.

(Exact name of Registrant as specified in its charter)

Delaware	**3629**	**22-3672377**
(State or other jurisdiction of incorporation or organization)	**(Primary Standard Industrial Classification Code Number)**	**(I.R.S. Employer Identification Number)**

968 Albany Shaker Road
Latham, New York 12110

(518) 782-7700

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant s Principal Executive Offices)

Andrew Marsh
President and Chief Executive Officer
Plug Power Inc.
968 Albany-Shaker Road
Latham, New York, 12110
(518) 782-7700
(Name, Address, Including Zip Code, and Telephone Number, Including Area Code, of Agent for Service)

Copies to:

Robert P. Whalen, Jr., Esq. **Jocelyn M. Arel, Esq.** **Goodwin Procter LLP** **Exchange Place** **Boston, Massachusetts 02109-2881** **(617) 570-1000**	**Gerard L. Conway Jr., Esq.** **General Counsel** **Plug Power Inc.** **968 Albany-Shaker Road** **Latham, New York, 12110** **(518) 782-7700**	**Steven Skolnick, Esq.** **Lowenstein Sandler LLP** **1251 Avenue of the Americas** **New York, New York 10020** **(646) 262-6700**

Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this registration statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, check the following box. ¨

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ¨

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

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	x	Smaller reporting company	¨

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities To Be Registered	**Proposed Maximum Aggregate Offering Price(1)(2)**	**Amount of Registration Fee**
Common Stock, $0.01 par value per share(3)		
Warrants		
Total	$20,000,000	$2,728

(1) Includes offering price of any additional shares of Common Stock and warrants that the underwriter has an option to purchase to cover over-allotments, if any.

(2) Estimated solely for the purpose of calculating the registration fee in accordance with Rule 457(o) under the Securities Act of 1933, as amended.

(3) This registration statement also relates to the rights to purchase Series A Junior Participating Cumulative Preferred Stock of the registrant which are attached to all shares of common stock issued pursuant to the terms of the registrant s Shareholders Rights Agreement dated June 23, 2009, as amended. Until the occurrence of certain prescribed events, the rights are not exercisable, are evidenced by the certificates for the common stock and will be transferred with and only with such common stock. Because no separate consideration is paid for the rights, the registration fee therefore is included in the fee for common stock.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment that specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act, or until the Registration Statement shall become effective on such date as the Securities and Exchange Commission, acting pursuant to said Section 8(a), may determine.

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 January 15, 2013

PROSPECTUS

Shares of Common Stock
Warrants to Purchase Shares of Common Stock

We are selling shares of our common stock and warrants to purchase up to shares of our common stock (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 of a 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 is traded on the NASDAQ Capital Market under the symbol PLUG. On January 14, 2013, the last reported sale price of our common stock on the NASDAQ Capital Market was $0.59. 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.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD REVIEW CAREFULLY THE RISKS AND UNCERTAINTIES REFERENCED UNDER THE HEADING RISK FACTORS BEGINNING ON PAGE 7.

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

(1) We have agreed to reimburse the underwriter for certain of its expenses as described under Underwriting on page 68 of this prospectus.

We have granted the underwriter 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.

Roth Capital Partners, LLC expects to deliver the shares on or about , 2013.

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.

Roth Capital Partners

This prospectus is dated , 2013

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You should rely only on the information contained in this prospectus or in any free writing prospectus we file with the Securities and Exchange Commission. We and the underwriter have not authorized anyone to provide you with information different from that contained in this prospectus or any free writing prospectus. We and the underwriter are offering to sell, and seeking offers to buy, shares of our common stock and warrants to purchase common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date on the front cover of this prospectus, or other earlier date stated in this prospectus, regardless of the time of delivery of this prospectus or of any sale of our common stock and warrants to purchase common stock.

For investors outside of the United States: Neither we nor the underwriter has done anything that would permit this offering outside the United States or to permit the possession or distribution of this prospectus outside the United States. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the shares of common stock and the distribution of this prospectus outside of the United States.

PROSPECTUS SUMMARY

This summary highlights information contained elsewhere in this prospectus and does not contain all of the information that you should consider in making your investment decision. Before investing in our common stock, you should carefully read this entire prospectus, including our financial statements and the related notes included elsewhere in this prospectus. You should also consider, among other things, the matters described under Risk Factors and Management s Discussion and Analysis of Financial Condition and Results of Operations, in each case appearing elsewhere in this prospectus.

Unless otherwise mentioned or unless the context requires otherwise, all references to Plug Power, we, us, our, the company or similar designations refer to Plug Power Inc. and its subsidiaries.

This prospectus 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 or any related free writing prospectus are the property of their respective owners.

PLUG POWER INC.

Background

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 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, or 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 current 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, or OEMs, and their dealer networks. We sell to businesses, government agencies and commercial consumers.

Business Strategy

We are committed to developing effective, economical and reliable fuel cell products and services for businesses, government agencies and commercial consumers. Building on our substantial fuel cell application and product integration experience, we are focused on generating strong relationships with customers who value increased reliability, productivity, energy security and a sustainable future.

Our business strategy leverages our unique fuel cell application and integration knowledge to identify early adopter markets for which we can design and develop innovative systems and customer solutions that provide superior value, ease-of-use and environmental design.

We have made significant progress in our analysis of the material handling market. We believe we have developed reliable products which allow the end customers to eliminate incumbent power sources from their operations, and realize their sustainability objectives through clean energy alternatives.

Our strategy is to focus our resources on the material handling market with our GenDrive product line, which represents an alternative to lead-acid battery configurations. Our strategy also includes the following objectives: decrease product costs by leveraging the supply chain, lower manufacturing costs, improve system reliability, expand our sales network to effectively reach more of our targeted customers and provide customers with high-quality products, service and post-sales support experience.

Our longer-term objectives are to deliver economic, social, and environmental benefits in terms of reliable, clean, cost-effective fuel cell solutions and, ultimately, sustainability.

We believe continued investment in research and development is critical to the development and enhancement of innovative products, technologies and services. In addition to evolving our direct hydrogen fueled systems, we continue to capitalize on our investment and expertise in power electronics, controls, and software design.

Products

We sell and continue to develop a range of fuel cell products to replace lead-acid batteries in material handling vehicles and industrial trucks for some of North America s largest distribution and manufacturing businesses. Our primary product line is GenDrive, a hydrogen fueled PEM fuel cell system to provide power to industrial vehicles. We are focusing our efforts on material handling applications (forklifts) at multi-shift high volume manufacturing and high throughput distribution sites where our products and services provide a unique combination of productivity, flexibility and environmental benefits. In October, 2011 we introduced our next generation GenDrive products. These next generation fuel cell units include a simplified architecture featuring 30% fewer components and a scalable design for low power applications, giving customers greater flexibility in managing their deployments. By the third quarter of 2012, the majority of units produced and shipped were based on the simplified architecture. During the fiscal year ended December 31, 2012, we received new orders from Stihl, Mercedes Benz, Lowe s, Carter s and Ace Hardware. We also experienced add-on orders from Walmart, P&G, Coca-Cola, Sysco, Wegmans, Kroger and BMW.

We continue to develop and monitor future iterations of our products aligned with our evolving product roadmap. According to Fuel Cells Bulletin, an industry publication, we had 85% world-wide market share in the fuel cell powered material handling industry as of September 2010.

Markets/Geography & Order Status

Our commercial sales for GenDrive products are in the material handling market, which primarily consist of large fleet, multi-shift operations in high-volume manufacturing and high-throughput distribution centers. In 2012, all of our GenDrive product installations were in North America.

We shipped 873 units and received 353 orders for our GenDrive product during the nine months ended September 30, 2012, representing $9.7 million in orders from material handling customers. We shipped 1,024 units and received 2,503 orders for our GenDrive product during the year ended December 31, 2011, representing $46.1 million in orders from material handling customers; $18.1 million of which were received during the fourth quarter. Backlog on December 31, 2012 is estimated to have been 1,319 units, representing approximately $26.2 million in value. Backlog on December 31, 2011 was 1,969 units representing approximately $36.0 million in value. Backlog on December 31, 2010 was 527 units representing approximately $12.8 million in value including approximately $700,000 related to 20 units that were awarded under a government project.

The following table sets forth certain shipment, order and backlog information (in units):

	Years Ended December 31,		Nine Months ended September 30
	2010	**2011**	**2012**
Product Shipments	552	1,024	873
Lease Shipments	98	-	-
Cancellations/Adjustments	(20)	(37)	-
Orders	543	2,503	353
Backlog	527	1,969	1,449

We have accepted orders that require certain conditions or contingencies to be satisfied prior to shipment, some of which are outside of our control. Historically, shipments made against these orders generally occur between ninety days and twenty-four months from the date of acceptance of the order.

The assembly of GenDrive products that we sell is performed at our manufacturing facility in Latham, New York. Currently, the supply and manufacture of several critical components used in our products are performed by sole-sourced third-party vendors in the U.S., Canada and China.

We intend to focus our efforts on developing, manufacturing and selling our GenDrive products and do not expect to develop or manufacture GenSys or GenCore products in the near term. We took no GenCore or GenSys orders in 2012 and did not ship any of these products in 2012.

Selected Risk Factors

Our business is subject to many risks and uncertainties of which you should be aware before you decide to invest in our common stock and/or warrants to purchase common stock. These risks are discussed more fully under Risk Factors in this prospectus. Some of these risks are:

- We have incurred losses, anticipate continuing to incur losses and might never achieve or maintain profitability.
- We do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may need to reduce and/or cease our operations.
- Despite this offering, we will still require significant additional capital funding and such capital may not be available to us.
- The recent restructuring plan we adopted may adversely impact management s ability to meet financial reporting requirements.
- We do not have extensive experience in manufacturing and marketing our products and, as a result, may be unable to sustain a profitable commercial market for our new and existing products.
- Certain GenDrive component quality issues have resulted in adjustments to our warranty reserves, which negatively impacted our results and delayed our new order momentum, and unanticipated future product reliability and quality issues could impair our ability to service long term warranty and maintenance contracts profitably.
- Our purchase orders may not ship, be commissioned or installed, or convert to revenue, and our pending orders may not convert to purchase orders, which may have a material adverse effect on our revenue and cash flow.
- If our stock price continues to remain below $1.00, our common stock may be subject to delisting from The NASDAQ Stock Market.
- Our stock price has been and could remain volatile, which could further adversely affect the market price of our stock, our ability to raise additional capital and/or cause us to be subject to securities class action litigation.
- Two of our stockholders, JSC INTER RAO Capital , or INTER RAO Capital, and affiliates and associates of AWM Investment Company, including, but not limited to Special Situations Technology Fund, L.P., Special Situations Technology Fund II, L.P. and Special Situations Private Equity Fund, L.P., or, collectively, SSF, have substantial control over us and could limit our other stockholders ability to influence the outcome of key transactions, including a change of control.
- The sale by INTER RAO Capital or SSF of a substantial number of shares of our common stock could cause the market price of our common stock to decline and adversely affect our ability to remain listed on an exchange and/or raise capital through equity offerings.
- Investors in this offering will experience immediate and substantial dilution.
- There is no public market for the warrants to purchase common stock being offered in this offering.
- Holders of our warrants will have no rights as a common stockholder until such holders exercise their warrants and acquire our common stock.
- The warrants in this offering may not have any value.

Recent Developments

NASDAQ Notice

On October 12, 2012, we received a deficiency notice from The NASDAQ Stock Market, or the NASDAQ, stating that we no longer comply with NASDAQ Marketplace Rule 5550(a)(2) because the bid price of our common stock closed below the required minimum $1.00 per share for the previous 30 consecutive business days. The notice also indicated that, in accordance with Marketplace Rule 5810(c)(3)(A), we have a period of 180 calendar days, until April 10, 2013, to regain compliance with Rule 5550(a)(2). If at any time before April 10, 2013 the bid price of our common stock closes at $1.00 per share or more for a minimum of 10 consecutive business days, NASDAQ will notify us that we have regained compliance with Rule 5550(a)(2). In the event we do not regain compliance with Rule 5550(a)(2) prior to the expiration of the 180-day period, NASDAQ will notify us that our common stock is subject to delisting. We may appeal the delisting determination to a NASDAQ hearing panel and the delisting will be stayed pending until the panel s determination. At such hearing, we would present a plan to regain compliance and NASDAQ would then subsequently render a decision. We are currently evaluating our alternatives to resolve the listing deficiency.

Restructuring

On December 11, 2012, we adopted a restructuring plan to improve organizational efficiency and conserve working capital needed to support the growth of our GenDrive business. In doing so, 22 full-time positions were eliminated at our U.S. facilities. This workforce reduction was substantially completed on December 13, 2012. As a result of the restructuring, we expect to reduce annual expenses by $3.0 to $4.0 million.

We currently estimate that we will incur pre-tax restructuring charges in the fourth quarter resulting from the restructuring of approximately $600,000 related to severance pay and other related costs. We expect to pay the majority of these restructuring charges within the next few months. The estimates of total charges and cash expenditures that we expect to incur in connection with the restructuring, and the timing thereof, is subject to a number of assumptions, and actual results may materially differ from those stated above.

Company and Other Information

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., or Cellex, and General Hydrogen Corporation, or 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.

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.

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.

THE OFFERING

Common stock offered by us	shares
Common stock to be outstanding after this 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 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 to purchase additional shares	The underwriter has an option to purchase a maximum of additional shares of common stock and/or warrants to purchase a maximum of shares of common stock from us. The underwriter can exercise this option at any time within 45 days from the date of this prospectus.
Use of Proceeds	We estimate that we will receive net proceeds from the sale of shares of our common stock and warrants to purchase common stock in this offering of approximately $ million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We intend to use the proceeds to be used for working capital and other general corporate purposes including, among other things, capital expenditures. See Use of Proceeds in this prospectus.
NASDAQ Stock Market symbol	PLUG
Risk Factors	You should read carefully Risk Factors in this prospectus for a discussion of factors that you should consider before deciding to invest in shares of our common stock and warrants to purchase common stock.

The number of shares of common stock to be outstanding after this offering is based on 38,197,255 shares outstanding as of September 30, 2012 and excludes:

1,999,521 shares of common stock issuable upon exercise of outstanding options as of September 30, 2012 at a weighted average exercise price of $9.01 per share (of which options to acquire 665,305 shares of common stock are vested as of September 30, 2012);

275,262 shares of common stock issuable upon the exercise of unvested restricted stock awards outstanding as of September 30, 2012;

5,485,229 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2012;

9,421,008 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2012, which number of shares will increase as a result of the offering due to anti-dilution provisions contained in such warrants; and

shares of common stock issuable upon the exercise of the warrants to be sold in this offering.

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

SUMMARY CONSOLIDATED FINANCIAL DATA

The following table presents our summary consolidated financial data for the periods indicated. The consolidated statement of operations and comprehensive income (loss) data for the years ended December 31, 2009, 2010 and 2011 and the balance sheet data as of December 31, 2010 and 2011 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The balance sheet data as of December 31, 2009 and September 30, 2011 have been derived from our audited consolidated financial statements and unaudited interim consolidated financial statements, respectively, that are not included in this prospectus. The consolidated statement of operations and comprehensive income (loss) data for the nine months ended September 30, 2011 and 2012 and the consolidated balance sheet data as of September 30, 2012 have been derived from our unaudited interim consolidated financial statements that are included elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements, and in the opinion of management, reflect all adjustments of a normal recurring nature considered necessary to present fairly our financial position for such periods. Our historical results are not necessarily indicative of future operating results, and the interim results set forth below are not necessarily indicative of expected results for the year ended December 31, 2012 or for any future period.

Effective January 1, 2012, the company adopted the Financial Accounting Standards Board s Accounting Standards Update (ASU) No. 2011-5, Comprehensive Income (Topic 220): Presentation of Comprehensive Income, as amended by ASU 2011-12, Comprehensive Income (Topic 220): Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05. These updates revise the manner in which entities present comprehensive income in their financial statements. The statement of comprehensive income (loss) data presented below revises historical information to illustrate the new presentation required by this pronouncement for those periods prior to adoption.

You should read this summary consolidated financial data in conjunction with the sections entitled Capitalization, Selected Consolidated Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes, all included elsewhere in this prospectus.

	Years Ended December 31,			Nine Months Ended September 30,	
	2009	2010	2011	2011	2012
	(in thousands, except per share data)				
Consolidated Statements of Operations Data:					
Product and service revenue......................................	$4,833	$15,739	$23,223	$11,927	$18,712
Research and development contract revenue........	7,460	3,598	3,886	3,342	1,475
Licensed technology revenue..................................	-	136	517	489	-
Total revenue...	12,293	19,473	27,626	15,758	20,187
Cost of product and service revenue.......................	7,246	23,111	30,670	19,188	28,552
Cost of research and development contract revenue..	12,433	6,371	6,232	5,506	2,390
Research and development expense.......................	16,324	12,901	5,656	3,648	4,090
Selling, general and administrative expenses..........	15,427	25,572	14,546	11,051	10,556
Gain on sale of assets..	-	(3,217)	(673)	(673)	-
Amortization of intangible assets............................	2,132	2,264	2,322	1,755	1,727
Other income (expense), net.....................................	560	570	3,673	4,429	3,740
Net loss...	$(40,709)	$(46,959)	$(27,454)	$(20,286)	$(23,388)

Loss per share, basic and diluted.............................	$(3.15)	$(3.58)	$(1.46)	$(1.16)	$(0.71)
Weighted average number of common shares outstanding..	12,911	13,123	18,778	17,442	33,107
Statements of Comprehensive Income (Loss) Data:					
Net Loss	$ (40,709)	$ (46,959)	$(27,454)	$(20,286)	$(23,388)
Other comprehensive (loss) income:					
Foreign currency translation gain (loss)................	1,294	277	(56)	(74)	107
Unrealized gain (loss) on available-for-sale securities...................................	(131)	(114)	19	19	-
Comprehensive Loss...	$ (39,546)	$ (46,796)	$(27,491)	$(20,341)	$(23,281)
Balance Sheet Data:					
(*at end of the period*)					
Unrestricted cash, cash equivalents and available-for-sale securities...	$62,541	$21,359	$13,857	$22,802	$9,461
Trading securities auction rate debt securities.....	53,397	-	-	-	-
Total assets..	164,185	59,177	55,656	53,312	45,567
Borrowings under line of credit.................................	59,375	-	5,405	-	1,000
Current portion of long-term obligations................	533	-	-	-	-
Long-term obligations..	2,426	3,141	9,577	5,768	6,426
Stockholders' equity...	88,269	42,913	29,036	35,728	23,045
Working capital...	60,009	25,556	22,452	24,543	15,584

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RISK FACTORS

Investing in our common stock and warrants involves a high degree of risk. You should carefully consider the following risks and uncertainties, together with all other information in this prospectus, including our consolidated financial statements and related notes, before investing in our common stock. Any of the risk factors we describe below could adversely affect our business, financial condition or results of operations. The market price of our common stock could decline if one or more of these risks or uncertainties actually occurs, causing you to lose all or part of the money you paid to buy our common stock and warrants. Certain statements below are forward-looking statements. See Forward-Looking Statements in this prospectus.

Risks Related to our Business and our Industry

We have incurred losses, anticipate continuing to incur losses and might never achieve or maintain profitability.

We have not achieved profitability in any quarter since our formation and we will continue to incur net losses until we can produce sufficient revenue to cover our costs. Our net losses were approximately $60.6 million in 2007, $121.7 million in 2008, $40.7 million in 2009, $47.0 million in 2010, $27.5 million in 2011 and $23.4 million for the nine months ended September 30, 2012. As of September 30, 2012, we had an accumulated deficit of $778.2 million. We anticipate that we will continue to incur losses until we can produce and sell our products on a large-scale and cost-effective basis. Substantially all of our losses resulted from costs incurred in connection with our manufacturing operations, research and development expenses and from general and administrative costs associated with our operations. We cannot guarantee when we will operate profitably, if ever. In order to achieve profitability, among other factors, management must successfully execute our planned path to profitability in the early adoption markets on which we are focused, the hydrogen infrastructure that is needed to support our growth readiness and cost efficiency must be available and cost efficient, we must: continue to shorten the cycles in our product roadmap with respect to: product reliability and performance that our customers expect and successful introduction of our products into the market, we must accurately evaluate our markets for, and react to, competitive threats in both other technologies (such as advanced batteries) and our technology field, and we must continue to lower our products build costs and lifetime service costs. If we are unable to successfully take these steps, we may never operate profitably, and, even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future.

We do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may need to reduce and/or cease our operations.

We have experienced recurring operating losses and as of September 30, 2012, we had an accumulated deficit of approximately $778.2 million. Substantially all of our accumulated deficit has resulted from costs incurred in connection with our operating expenses, research and development expenses and from general and administrative costs associated with our operations. On September 30, 2012, we had cash and cash equivalents of $9.5 million and net working capital of $15.6 million. This compares to $22.8 million and $24.5 million, respectively, at September 30, 2011. We currently estimate that we had, as of December 31, 2012, cash and cash equivalents of approximately $9.4 million and accounts payable of approximately $3.5 million. We also estimate that as of December 31, 2012, of our total accounts payable, approximately $1.6 million were more than 30 days past due and approximately $0.3

million were more than 120 days past due. In addition, based on the borrowing base calculation and our outstanding loan balance, we currently have no availability under our loan facility with Silicon Valley Bank. To date, we have funded our operations primarily through public and private offerings of our common and preferred stock, our line of credit and maturities and sales of our available for sale securities. We anticipate incurring substantial additional losses and may never achieve profitability. Additionally, even if we raise sufficient capital through equity or debt financing, strategic alliances or otherwise, there can be no assurances that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow.

Despite this offering, we will still require significant additional capital funding and such capital may not be available to us.

In the event that our operating expenses are higher than anticipated or the gross margins and shipments of our GenDrive products do not increase as we expect, we may be required to implement contingency plans within our control to conserve and/or enhance our liquidity to meet operating needs. Such plans include: our ability to further reduce discretionary expenses, monetize our real estate assets through a sale-leaseback arrangement and obtain additional funding from licensing the use of our technologies. Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, and continued development and expansion of our products. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments, the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of building a sales base; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the extent to which our products gain market acceptance; the timing and costs of product development and introductions; the extent of our ongoing and any new research and development programs; and changes in our strategy or our planned activities. If we are unable to fund our operations without additional external financing and therefore cannot sustain future operations, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection.

Alternatives we would consider for additional funding include additional equity or debt financings, a sale-leaseback of our real estate, or licensing of our technology. In addition to raising capital, we may also consider strategic alternatives including business combinations, strategic alliances or joint ventures. If we are unable to obtain additional capital in 2013, we may not be able to sustain our future operations and may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection. The additional capital from the proceeds we receive in this offering is expected to fund our operations through the remainder of our 2013 fiscal year. We cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. Given the difficult current economic environment, we believe that it could be difficult to raise additional funds and there can be no assurance as to the availability of additional financing or the terms upon which additional financing may be available. Additionally, even if we raise sufficient capital through additional equity or debt financings, strategic alternatives or otherwise, there can be no assurance that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. Similarly, if our common stock is delisted from the NASDAQ Capital Market, it may limit our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

The recent restructuring plan we adopted may adversely impact management s ability to meet financial reporting requirements.

On December 11, 2012, we adopted a restructuring plan to improve organizational efficiency and conserve working capital needed to support the growth of our GenDrive business. In doing so, 22 full-time positions were eliminated at our U.S. facilities, including positions in our finance department. This workforce reduction was substantially completed on December 13, 2012. As a result of the restructuring and associated reduced headcount, going forward we may lack the resources to adequately meet our financial reporting requirements.

We do not have extensive experience in manufacturing and marketing our products and, as a result, may be unable to sustain a profitable commercial market for our new and existing products.

From 1997 to 2008, we focused primarily on research and development of fuel cell systems. In the latter half of 2008, we shifted our focus to viable commercialization of our fuel cell products. While we have been manufacturing our products in small quantities for several years, we do not have extensive experience in mass-manufacturing and marketing our products. We do not know whether or when we will be able to develop efficient, low-cost manufacturing capabilities and processes that will enable us to manufacture our products in commercial quantities while meeting the quality, price, engineering, design, and production standards required to profitably market our products. Even if we are successful in developing our manufacturing capabilities and processes, we do not know whether we will do so in time to meet our product commercialization schedule or to satisfy the requirements of our distributors or customers. Before investing in our common stock, you should consider the challenges, expenses and difficulties that we will face as an emerging technology company seeking to sustain a viable commercial market for our new and existing products. If we are unable to sustain a viable commercial market for our products, that failure would have a material adverse effect on our business, prospects, financial condition and results of operations.

Our purchase orders may not ship, be commissioned or installed, or convert to revenue, and our pending orders may not convert to purchase orders, which may have a material adverse effect on our revenue and cash flow.

Some of the orders we accept from customers require certain conditions or contingencies to be satisfied prior to shipment or prior to commissioning or installation, some of which are outside of our control. Historically, shipments made against these orders have generally occurred between ninety days and twenty-four months from the date of acceptance of the order. Orders received in the nine months ended September 30, 2012 were 353 units for approximately $10.0 million in value. Backlog on September 30, 2012 was $25.5 million, with approximately $4.3 million of this backlog older than 12 months. The time periods from receipt of an order to shipment date and installation vary widely and are determined by a number of factors, including the terms of the customer contract and the customer s deployment plan. There may also be product redesign or modification requirements that must be satisfied prior to shipment of units under certain of our agreements. If the redesigns or modifications are not completed, some or all of our orders may not ship or convert to revenue. We also have publicly discussed anticipated, pending orders with prospective customers; however, those prospective customers may require certain conditions or contingencies to be satisfied prior to issuing a purchase order to us, some of which are outside of our control. Such conditions or contingencies that may be required to be satisfied before we receive a purchase order may include, but are not limited to, successful product demonstrations or field trials. Some conditions or contingencies that are out of our control may include, but are not limited to, government tax policy, government funding programs, and government incentive programs. Additionally, some conditions and contingencies may extend for several years. We may have to compensate customers, by either reimbursement, forfeiting portions of associated revenue, or other methods depending on the terms of the customer contract, based on the failure on any of these conditions or contingencies. This could have an adverse impact on our revenue and cash flow.

Certain GenDrive component quality issues have resulted in adjustments to our warranty reserves, which negatively impacted our results and delayed our new order momentum, and unanticipated future product reliability and quality issues could impair our ability to service long term warranty and maintenance contracts profitably.

Isolated quality issues have arisen with respect to certain components in our next-generation GenDrive units that are currently being used at customer sites. The product and service revenue contracts we entered into generally provide a one-to-two-year product warranty to customers from date of installation. We have had to retrofit the units subject to component quality issues with replacement components that will improve the reliability of our next-generation GenDrive products for those customers. We have estimated the costs of satisfying those warranty claims and have recorded a reserve adjustment of $3.3 million in the third quarter of 2012, as reported in our Quarterly Report on Form 10-Q for the quarter ended September 30, 2012, and as a result, our product and warranty reserve as of September 30, 2012 is approximately $3.0 million and is included in product warranty reserve in the consolidated balance sheets. However, if any unanticipated additional quality issues or warranty claims arise, additional material charges may be incurred in the future. We continue to work with our vendors on these component issues to recover charges taken and improve quality and reliability of components to prevent a reoccurrence of the isolated quality issues we have experienced. However, any liability for damages resulting from malfunctions or design defects could be substantial and could materially adversely affect our business, financial condition, results of operations and prospects. In addition, a well-publicized actual or perceived problem could adversely affect the market s perception of our products resulting in a decline in demand for our products and could divert the attention of our management, which may materially and adversely affect our business, financial condition, results of operations and prospects.

Our GenDrive product depends on the availability of hydrogen and our lack of control over or limited availability of such fuel may adversely impact our sales and product deployment.

Our products depend largely on the availability of natural gas and hydrogen gas. We are dependent upon hydrogen suppliers for success with the profitable commercialization of our GenDrive product. Although we will continue to work with hydrogen suppliers to mutually agree on terms for our customers, including, but not limited to, price of the hydrogen molecules, liquid hydrogen, hydrogen infrastructure and service costs, to the benefit of our GenDrive product value proposition, ultimately we have no control over such third parties. If these fuels are not readily available or if their prices are such that energy produced by our products costs more than energy provided by other sources, then our products could be less attractive to potential users and our products value proposition could be negatively affected. If hydrogen suppliers elect not to participate in the material handling market, there may be an insufficient supply of hydrogen for this market that could negatively affect our sales and deployment of our GenDrive product.

Unless we lower the cost of our GenDrive products and demonstrate their reliability, our product sales could be adversely affected.

The initial capital cost of our GenDrive products is currently higher than many established competing technologies. If we are unable to successfully complete the development of GenDrive or any future products we develop that are competitive with competing technologies in terms of price, reliability and longevity, customers will be unlikely to buy our products. The profitability of our products depends largely on material and manufacturing costs. We cannot guarantee that we will be able to lower these costs to the level where we will be able to produce a competitive product or that any product produced using lower cost materials and manufacturing processes will not suffer from a reduction in performance, reliability and longevity.

Our GenDrive products face intense competition and we may be unable to compete successfully.

The markets for energy products are intensely competitive. Some of our competitors in the fuel cell sector and in incumbent technologies are much larger than we are and may have the manufacturing, marketing and sales capabilities to complete research, development and commercialization of profitable, commercially viable products more quickly and effectively than we can. There are many companies engaged in all areas of traditional and alternative energy generation in the United States, Canada and abroad, including, among others, major electric, oil, chemical, natural gas, battery, generator and specialized electronics firms, as well as universities, research institutions and foreign government-sponsored companies. These firms are engaged in forms of power generation such as solar and wind power, reciprocating engines and micro turbines, advanced battery technologies, generator sets, fast charged technologies and other types of fuel cell technologies. Many of these entities have substantially greater financial, research and development, manufacturing and marketing resources than we do. Technological advances in alternative energy products, battery systems or other fuel cell technologies may make our products less attractive or render them obsolete.

We depend on only a few customers for the majority of our revenues and the loss of any one or more of these customers, or a significant loss, reduction or rescheduling of orders from any of these customers, would have a material adverse effect on our business, financial condition and results of operations.

We sell most of our products to a small number of customers, and while we are continually seeking to expand our customer base, we expect this will continue for the next several years. As of December 31, 2011, five of our customers comprised approximately 83.0% of the total accounts receivable balance, with each customer individually representing 27.0%, 17.3%, 16.4%, 12.1% and 10.2% of that amount. For the year ended December 31, 2011, contracts with three customers comprise approximately 39.0% of total consolidated revenues, with each customer individually representing 14.5%, 14.0% and 10.5%, of total consolidated revenues, respectively. For the nine months ended September 30, 2012, contracts with three customers comprise approximately 55.5% of total consolidated revenues, with each customer representing 25.8%, 19.4%, and 10.3%, respectively. Any decline in business with these small numbers of customers could have an adverse impact on our business, financial condition and results of operations. Our future success is dependent upon the continued purchases of our products by a small number of customers. Any fluctuations in demand from such customers or other customers may negatively impact our business, financial condition and results of operations. If we are unable to broaden our customer base and expand relationships with potential customers, our business will continue to be impacted by unanticipated demand fluctuations due to our dependence on a small number of customers. Unanticipated demand fluctuations can have a negative impact on our revenues and business, and an adverse effect on our business, financial condition and results of operations. In addition, our dependence on a small number of major customers exposes us to numerous other risks, including: a slowdown or delay in a customer s deployment of our products could significantly reduce demand for our products; reductions in a single customer s forecasts and demand could result in excess inventories; the current or future economic conditions could negatively affect one or more of our major customers and cause them to significantly reduce operations, or file for bankruptcy; consolidation of customers can reduce demand as well as increase pricing pressure on our products due to increased purchasing leverage; each of our customers has significant purchasing leverage over us to require changes in sales terms including pricing, payment terms and product delivery schedules; and concentration of accounts receivable credit risk, which could have a material adverse effect on our liquidity and financial condition if one of our major customers declared bankruptcy or delayed payment of their receivables.

The loss of one or more of our key supply partners could have a material adverse effect on our business.

We have certain key suppliers, such as Ballard and Air Squared, that we rely on for critical components in our products and there are numerous other components for our products that are sole sourced. A supplier s failure to develop and supply components in a timely manner or at all, or to develop or supply components that meet our quality, quantity or cost requirements, or our inability to obtain substitute sources of these components on a timely basis or on terms acceptable to us, could harm our ability to manufacture our products. For example, in the fourth quarter of 2012, Ballard had temporarily stopped shipping fuel cell stacks for our GenDrive product line due to a dispute with us, but we have since resolved this dispute and we are once again in good standing with Ballard as our supplier. In addition, to the extent that our supply partners use technology or manufacturing processes that are proprietary, we may be unable to obtain comparable components from alternative sources.

A robust market for our GenDrive products may never develop or may take longer to develop than we anticipate.

We believe we have identified viable markets for our GenDrive products, however our products represent emerging technologies, and we do not know the extent to which our targeted customers will want to purchase them and whether end-users will want to use them. If a sizable market fails to develop or develops more slowly than we anticipate, we may be unable to recover the losses we will have incurred to develop our products and may be unable to achieve profitability. The development of a sizable market for our products may be impacted by many factors which are out of our control, including: the cost competitiveness of our products; the future costs of natural gas, hydrogen and other fuels expected to be used by our products; consumer reluctance to try a new product; consumer perceptions of our products safety; regulatory requirements; barriers to entry created by existing energy providers; and the emergence of newer, more competitive technologies and products.

We may be unable to establish or maintain relationships with third parties for certain aspects of continued product development, manufacturing, distribution and servicing and the supply of key components for our products.

We will need to maintain and may need to enter into additional strategic relationships in order to complete our current product development and commercialization plans. We will also require partners to assist in the sale, servicing and supply of components for our anticipated products, which are in development. If we are unable to identify or enter into satisfactory agreements with potential partners, including those relating to the distribution, service and support of our anticipated products, we may not be able to complete our product development and commercialization plans on schedule or at all. We may also need to scale back these plans in the absence of needed partners, which would adversely affect our future prospects for development and commercialization of future products. In addition, any arrangement with a strategic partner may require us to issue a significant amount of equity securities to the partner, provide the partner with representation on our board of directors and/or commit significant financial resources to fund our product development efforts in exchange for their assistance or the contribution to us of intellectual property. Any such issuance of equity securities would reduce the percentage ownership of our then current stockholders. While we have entered into relationships with suppliers of some key components for our products, we do not know when or whether we will secure supply relationships for all required components and subsystems for our products, or whether such relationships will be on terms that will allow us to achieve our objectives. Our business prospects, results of operations and financial condition could be harmed if we fail to secure relationships with entities which can develop or supply the required components for our products and provide the required distribution and servicing support. Additionally, the agreements governing our current relationships allow for termination by our partners under certain circumstances, some of which are beyond our control. If any of our current strategic partners were to terminate any of its agreements with us, there could be a material adverse impact on the continued development and profitable commercialization of our products and the operation of our business, financial condition, results of operations and prospects.

We face risks associated with our plans to market, distribute and service our GenDrive products internationally.

We intend to market, distribute, sell and service our GenDrive products internationally. We have limited experience developing and manufacturing our products to comply with the commercial and legal requirements of international markets. Our success in international markets will depend, in part, on our ability and that of our partners to secure relationships with foreign sub-distributors, and our ability to manufacture products that meet foreign regulatory and commercial requirements. Additionally, our planned international operations are subject to other inherent risks, including potential difficulties in enforcing contractual obligations and intellectual property rights in foreign countries and fluctuations in currency exchange rates. Also, to the extent our operations and assets are located in foreign countries, they are potentially subject to nationalization actions over which we will have no control.

For example, we have formed a joint venture company based in France with Axane, S.A. under the name Hypulsion to develop and sell hydrogen fuel cell systems for the European material handling market. However, for the reasons discussed above, Hypulsion may not be able to accomplish its goals or become profitable.

Delays in our product development could have a material impact on the profitable commercialization of our products.

If we experience delays in meeting our development goals, our products exhibit technical defects, or if we are unable to meet cost or performance goals, including power output, useful life and reliability, the profitable commercialization of our products will be delayed. In this event, potential purchasers of our products may choose alternative technologies and any delays could allow potential competitors to gain market advantages. We cannot assure you that we will successfully meet our commercialization schedule in the future.

We may enter into contracts for products that have not yet been developed or produced, which may give such customers the right to terminate their agreements with us.

We may enter into contracts with our customers for certain products that have not been developed or produced. There can be no assurance that we will complete the development of these products and meet the specifications required to fulfill customer agreements and deliver products on schedule. Pursuant to such agreements, the customers would have the right to provide notice to us if, in their good faith judgment, we have materially deviated from such agreements. Should a customer provide such notice, and we cannot mutually agree to a modification to the agreement, then the customer may have the right to terminate the agreement, which could adversely affect our future business.

We may never complete the research and development of certain commercially viable products, which may adversely affect our revenue, profitability and result in possible warranty claims.

Other than certain products within our GenCore, GenSys and GenDrive product families, which we believe to be commercially viable at this time, we do not know when or whether we will successfully complete research and development of other commercially viable products. If we are unable to develop additional commercially viable products, we may not be able to generate sufficient revenue to become profitable. The profitable commercialization of our products depends on our ability to reduce the costs of our components and subsystems, and we cannot assure you that we will be able to sufficiently reduce these costs. In addition, the profitable commercialization of our products requires achievement and verification of their overall reliability, efficiency and safety targets, and we cannot assure you that we will be able to develop, acquire or license the technology necessary to achieve these targets. We must complete additional research and development to fill out product portfolios and deliver enhanced functionality and reliability in order to manufacture additional commercially viable products in commercial quantities. In addition, while we are conducting tests to predict the overall life of our products, we may not have run our products over their projected useful life prior to large-scale commercialization. As a result, we cannot be sure that our products will last as long as predicted, resulting in possible warranty claims and commercial failures.

We are a named party in a contract dispute for which an adverse outcome could result in us being liable for damages and subject to indemnification claims.

In July 2008, Soroof Trading Development Company Ltd., or Soroof, filed a demand for arbitration against GE Fuel Cell Systems, LLC, or GEFCS, claiming breach of a distributor agreement and seeking damages of $3 million. Prior to GEFCS dissolution in 2006, we held a 40% membership interest and GE Microgen, Inc., or GEM, held a 60% membership interest in GEFCS. In January 2010, Soroof requested, and GEM and we agreed, that the arbitration proceeding be administratively closed pending final resolution of the matter in United States District Court, Southern District of New York. On January 22, 2010, Soroof filed a complaint in United States District Court, Southern District of New York naming, among others, Plug Power Inc., GEFCS, and GEM as defendants. On January 24, 2012, following a motion for judgment on the pleadings and motion for summary judgment, the Court dismissed with prejudice four of Soroof s claims and dismissed without prejudice two of Soroof s claims. The Court also dismissed with prejudice all claims against GEFCS. Soroof filed an amended complaint on May 14, 2012 against us, GEM, and General Electric Company, re-pleading the two claims that were dismissed without prejudice. On December 12, 2012, the parties participated in a court settlement conference with the presiding judge at the United States District Court for the Southern District of New York. The case was not resolved at the settlement conference and discovery continues. Accordingly, we believe that it is too early to determine whether there is likely exposure to an adverse outcome and whether or not the probability of an adverse outcome is more than remote. We, GEFCS, GEM and General Electric Company, or GE, are party to an agreement under which we agreed to indemnify such parties for up to $1 million of certain losses related to the Soroof distributor agreement. GE has made a claim for indemnification against us under this agreement for all losses it may suffer as a result of the Soroof dispute. To the extent that the dispute results in an adverse outcome for us or for any of the parties for which we have agreed to indemnify, we could suffer financially as a result of the damages it would have to pay on behalf of itself or its indemnitees.

Failure of our prospective customer demonstrations could negatively impact demand for our products.

We conduct demonstrations with a number of our prospective customers, and we plan to conduct additional demonstrations for prospective customers as required in the future. We may encounter problems and delays during these demonstrations for a number of reasons, including the failure of our technology or the technology of third parties, as well as our failure to maintain and service our products properly. Many of these potential problems and delays are beyond our control. Any problem or perceived problem with our demonstrations with these prospective customers could materially harm our reputation and impair market acceptance of, and demand for, our products.

Product liability or defects could negatively impact our results of operations.

Any liability for damages resulting from malfunctions or design defects could be substantial and could materially adversely affect our business, financial condition, results of operations and prospects. In addition, a well-publicized actual or perceived problem could adversely affect the market s perception of our products resulting in a decline in demand for our products and could divert the attention of our management, which may materially and adversely affect our business, financial condition, results of operations and prospects.

The raw materials on which our products rely may not be readily available or available on a cost-effective basis.

For example, platinum is a key material in our PEM fuel cells. Platinum is a scarce natural resource and we are dependent upon a sufficient supply of this commodity. Any shortages could adversely affect our ability to produce commercially viable fuel cell systems and significantly raise our cost of producing our fuel cell systems.

Our future plans could be harmed if we are unable to attract or retain key personnel.

We have attracted a highly skilled management team and specialized workforce, including scientists, engineers, researchers, manufacturing, marketing and sales professionals. Our future success will depend, in part, on our ability to attract and retain qualified management and technical personnel. We do not know whether we will be successful in hiring or retaining qualified personnel. Our inability to hire qualified personnel on a timely basis, or the departure of key employees, could materially and adversely affect our development and profitable commercialization plans and, therefore, our business prospects, results of operations and financial condition.

Adverse changes in general economic conditions in the United States or any of the major countries in which we do business could adversely affect our operating results.

We are subject to the risks arising from adverse changes in global economic conditions. For example, adverse changes in general economic conditions, continuing economic uncertainties, and the direction and relative strength of the U.S. economy has become increasingly uncertain. If economic growth in the United States and other countries slows or recedes, our current or prospective customers may delay or reduce technology purchases. This could result in reductions in sales of our products, longer sales cycles, slower adoption of new technologies and increased price competition, which could materially and adversely affect our business, results of operations and financial condition.

Our business may become subject to future government regulation, which may impact our ability to market our products and costs and price of our products.

Our products are subject to certain federal, local, and non-U.S. laws and regulations, including, for example, state and local ordinances relating to building codes, public safety, electrical and gas pipeline connections, hydrogen transportation and siting and related matters. See Business Government Regulations for additional information. Further, as products are introduced into the market commercially, governments may impose new regulations. We do not know the extent to which any such regulations may impact our ability to distribute, install and service our products. Any regulation of our products, whether at the federal, state, local or foreign level, including any regulations relating to installation and servicing of our products, may increase our costs and the price of our products.

Our products use flammable fuels that are inherently dangerous substances.

Our fuel cell systems use natural gas and hydrogen gas in catalytic reactions. While our products do not use this fuel in a combustion process, natural gas and hydrogen gas are flammable fuels that could leak in a home or business and combust if ignited by another source. Further, while we are not aware of any accidents involving our products, any such accidents involving our products or other products using similar flammable fuels could materially suppress demand for, or heighten regulatory scrutiny of, our products.

We may not be able to protect important intellectual property and we could incur substantial costs defending against claims that our products infringe on the proprietary rights of others.

PEM fuel cell technology was first developed in the 1950s, and fuel processing technology has been practiced on a large scale in the petrochemical industry for decades. Accordingly, we do not believe that we can establish a significant proprietary position in the fundamental component technologies in these areas. However, our ability to compete effectively will depend, in part, on our ability to protect our proprietary system-level technologies, systems designs and manufacturing processes. We rely on patents, trademarks, and other policies and procedures related to confidentiality to protect our intellectual property. However, some of our intellectual property is not covered by any patent or patent application. Moreover, we do not know whether any of our pending patent applications will issue or, in the case of patents issued or to be issued, that the claims allowed are or will be sufficiently broad to protect our technology or processes. Even if all of our patent applications are issued and are sufficiently broad, our patents may be challenged or invalidated. We could incur substantial costs in prosecuting or defending patent infringement suits or otherwise protecting our intellectual property rights. While we have attempted to safeguard and maintain our proprietary rights, we do not know whether we have been or will be completely successful in doing so. Moreover, patent applications filed in foreign countries may be subject to laws, rules and procedures that are substantially different from those of the United States, and any resulting foreign patents may be difficult and expensive to enforce. In addition, we do not know whether the U.S. Patent & Trademark Office will grant federal registrations based on our pending trademark applications. Even if federal registrations are granted to us, our trademark rights may be challenged. It is also possible that our competitors or others will adopt trademarks similar to ours, thus impeding our ability to build brand identity and possibly leading to customer confusion. We could incur substantial costs in prosecuting or defending trademark infringement suits.

Further, our competitors may independently develop or patent technologies or processes that are substantially equivalent or superior to ours. If we are found to be infringing third party patents, we could be required to pay substantial royalties and/or damages, and we do not know whether we will be able to obtain licenses to use such patents on acceptable terms, if at all. Failure to obtain needed licenses could delay or prevent the development, manufacture or sale of our products, and could necessitate the expenditure of significant resources to develop or acquire non-infringing intellectual property.

Asserting, defending and maintaining our intellectual property rights could be difficult and costly and failure to do so may diminish our ability to compete effectively and may harm our operating results.

We may need to pursue lawsuits or legal action in the future to enforce our intellectual property rights, to protect our trade secrets and domain names, and to determine the validity and scope of the proprietary rights of others. If third parties prepare and file applications for trademarks used or registered by us, we may oppose those applications and be required to participate in proceedings to determine the priority of rights to the trademark. Similarly, competitors may have filed applications for patents, may have received patents and may obtain additional patents and proprietary rights relating to products or technology that block or compete with ours. We may have to participate in interference proceedings to determine the priority of invention and the right to a patent for the technology. Litigation and interference proceedings, even if they are successful, are expensive to pursue and time consuming, and we could use a substantial amount of our financial resources in either case.

We rely, in part, on contractual provisions to protect our trade secrets and proprietary knowledge, the adequacy of which may not be sufficient.

Confidentiality agreements to which we are party may be breached, and we may not have adequate remedies for any breach. Our trade secrets may also be known without breach of such agreements or may be independently developed by competitors. Our inability to maintain the proprietary nature of our technology and processes could allow our competitors to limit or eliminate any competitive advantages we may have.

Our government contracts could restrict our ability to profitably commercialize our technology.

Some of our technology has been developed with state and federal government funding in the United States, Canada and other countries. The United States and Canadian governments have a non-exclusive, royalty-free, irrevocable world-wide license to practice or have practiced some of our technology developed under contracts funded by the respective government. In some cases, government agencies in the United States or Canada can require us to obtain or produce components for our systems from sources located in the United States or Canada, respectively, rather than foreign countries. Our contracts with government agencies are also subject to the risk of termination at the convenience of the contracting agency, potential disclosure of our confidential information to third parties and the exercise of march-in rights by the government. March-in rights refer to the right of the United States or Canadian governments or government agency to license to others any technology developed under contracts funded by the government if the contractor fails to continue to develop the technology. The implementation of restrictions on our sourcing of components or the exercise of march-in rights could harm our business, prospects, results of operations and financial condition. In addition, under the Freedom of Information Act, any documents that we have submitted to the government or to a contractor under a government funding arrangement are subject to public disclosure that could compromise our intellectual property rights unless such documents are exempted as trade secrets or as confidential information and treated accordingly by such government agencies.

Risks Related to Our Securities and this Offering

If our stock price continues to remain below $1.00, our common stock may be subject to delisting from The NASDAQ Stock Market.

On October 12, 2012, we received a deficiency notice from NASDAQ stating that we no longer comply with NASDAQ Marketplace Rule 5550(a)(2) because the bid price of our common stock closed below the required minimum $1.00 per share for the previous 30 consecutive business days. The notice also indicated that, in accordance with Marketplace Rule 5810(c)(3)(A), we have a period of 180 calendar days, until April 10, 2013, to regain compliance with Rule 5550(a)(2). If at any time before April 10, 2013 the bid price of our common stock closes at $1.00 per share or more for a minimum of 10 consecutive business days, NASDAQ will notify us that we have regained compliance with Rule 5550(a)(2). In the event we do not regain compliance with Rule 5550(a)(2) prior to the expiration of the 180-day period, NASDAQ will notify us that our common stock is subject to delisting. We may appeal the delisting determination to a NASDAQ hearing panel and the delisting will be stayed pending until the panel's determination. At such hearing, we would present a plan to regain compliance and NASDAQ would then subsequently render a decision. We are currently evaluating our alternatives to resolve the listing deficiency. To the extent that we are unable to resolve the listing deficiency, there is a risk that our common stock may be delisted from NASDAQ, which would adversely impact liquidity of our common stock and potentially result in even lower bid prices for our common stock.

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

The market price of our common stock has historically experienced and may continue to experience significant volatility. In 2012, the closing market price of our common stock fluctuated from a high of $2.60 per share in the first quarter of 2012 to a low of $0.47 per share in the fourth quarter of 2012. Our progress in developing and commercializing our products, our quarterly operating results, announcements of new products by us or our competitors, our perceived prospects, changes in securities analysts recommendations or earnings estimates, changes in general conditions in the economy or the financial markets, adverse events related to our strategic relationships, significant sales of our common stock by existing stockholders, including one or more of our strategic partners, and other developments affecting us or our competitors could cause the market price of our common stock to fluctuate substantially. In addition, in recent years, the stock market has experienced significant price and volume fluctuations. This volatility has affected the market prices of securities issued by many companies for reasons unrelated to their operating performance and may adversely affect the price of our common stock. Such market price volatility could adversely affect our ability to raise additional capital. In addition, we may be subject to additional securities class action litigation as a result of volatility in the price of our common stock, which could result in substantial costs and diversion of management s attention and resources and could harm our stock price, business, prospects, results of operations and financial condition.

Two of our stockholders, JSC INTER RAO Capital, or INTER RAO Capital, and affiliates and associates of AWM Investment Company, including, but not limited to Special Situations Technology Fund, L.P., Special Situations Technology Fund II, L.P. and Special Situations Private Equity Fund, L.P., or, collectively, SSF, has substantial control over us and could limit our other stockholders ability to influence the outcome of key transactions, including a change of control.

As of December 31, 2012, INTER RAO Capital and SSF owned approximately 11.75% and 23.8 %, respectively, of the outstanding shares of our common stock. As a result, each of INTER RAO Capital and SSF can significantly influence or control certain matters requiring approval by our stockholders, including the approval of mergers or other extraordinary transactions. The interests of INTER RAO Capital and SSF may differ from our interest and the interest of our other stockholders, and INTER RAO Capital and/or SSF may vote in a way which may be adverse to our interests and the interests of our other stockholders. This concentration of ownership may have the effect of delaying, preventing or deterring key transactions such as a change of control of our Company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our Company and might ultimately affect the market price of our common stock. There may be other shareholders who beneficially own significant shares of our common stock such that they may influence or have control over certain Company matters. However, such shareholders have not yet filed reports to disclose their ownership of us and we cannot confirm the exact ownership of those shareholders at this time.

The sale by INTER RAO Capital or SSF of a substantial number of shares of our common stock could cause the market price of our common stock to decline and adversely affect our ability to remain listed on an exchange and/or raise capital through equity offerings.

INTER RAO Capital held 4,462,693 shares of common stock as of December 31, 2012, which represented in the aggregate approximately 11.75% of our outstanding common stock. SSF held 8,511,620 shares of common stock as of December 31, 2012, which represented in the aggregate approximately 23.8 % of our outstanding common stock. If INTER RAO Capital or its affiliates sell substantial amounts of our common stock in the public market, the market price of our common stock could decrease significantly.

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 effect on the market price of our common stock.

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

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

Investors in this offering will experience immediate and substantial dilution.

The public offering price of the securities offered pursuant to this prospectus 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. Because the public offering price in this offering is less than $2.27 per share, the exercise price of our existing 2011 five-year warrants to purchase shares of our common stock, which were reduced from $3.00 per share to $2.27 per share in March of 2012, will be further reduced from $2.27 to $ per share in accordance with the anti-dilution provisions of such warrants, and the number of shares issuable upon exercise of such warrants would increase from shares to shares, both of which could result in further dilution to our stockholders. See the section entitled Dilution below for a more detailed discussion of the dilution associated with this offering.

If our common stock is not listed on a national securities exchange, U.S. holders of warrants may not be able to exercise their warrants without compliance with applicable state securities laws and the value of your warrants may be significantly reduced.

If our common stock is delisted from The NASDAQ Stock Market and is not eligible to be listed on another national securities exchange, the exercise of the warrants by U.S. holders may not be exempt from state securities laws. As a result, depending on the state of residence of a holder of the warrants, a U.S. holder may not be able to exercise its warrants unless we comply with any state securities law requirements necessary to permit such exercise or an exemption applies. Although we plan to use our reasonable efforts to assure that U.S. holders will be able to exercise their warrants under applicable state securities laws if no exemption exists, there is no assurance that we will be able to do so. As a result, in the event that our common stock is delisted from The NASDAQ Stock Market and is not eligible to be listed on another securities exchange, your ability to exercise your warrants may be limited. The value of the warrants may be significantly reduced if U.S. holders are not able to exercise their warrants under applicable state securities laws.

If our common stock is not listed on a national securities exchange, compliance with applicable state securities laws may be required for subsequent offers, transfers and sales of the shares of common stock and warrants offered hereby.

The shares of our common stock and the warrants are being offered pursuant to one or more exemptions from registration and qualification under applicable state securities laws. Because our common stock is listed on The NASDAQ Stock Market, we are not required to register or qualify in any state the subsequent offer, transfer or sale of the common stock or warrants. If our common stock is delisted from The NASDAQ Stock Market and is not eligible to be listed on another national securities exchange, subsequent transfers of the shares of our common stock and warrants offered hereby by U.S. holders may not be exempt from state securities laws. In such event, it will be the responsibility of the holder of shares or warrants to register or qualify the shares or the warrants for any subsequent offer, transfer or sale in the United States or to determine that any such offer, transfer or sale is exempt under applicable state securities laws.

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.

The warrants included in this offering may not have any value.

The warrants will expire on the fifth anniversary of the date they are issued. In the event our common stock price does not exceed the exercise price of the warrants during the period when the warrants are exercisable, the warrants may not have any value.

FORWARD-LOOKING STATEMENTS

This prospectus, including the sections entitled Prospectus Summary, Risk Factors, Management s Discussion and Analysis of Financial Condition and Results of Operations and Business, 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, sho plan, projected or the negative of such words or other similar words or phrases. We believe that it is important to communicate our future expectations to our investors. However, there may be events in the future that we are not able to accurately predict or control and that may cause our actual results to differ materially from the expectations we describe in our forward-looking statements. Investors are cautioned not to unduly rely on forward-looking statements because they involve risks and uncertainties, and actual results may differ materially from those discussed as a result of various factors, including, but not limited to:

- we continue to incur losses and might never achieve or maintain profitability;
- we do not have enough cash to fund our operations to profitability and if we are unable to secure additional capital, we may need to reduce and/or cease our operations;
- despite this offering, we will still require significant additional capital funding and such capital may not be available to us.
- the recent restructuring plan we adopted may adversely impact management s ability to meet financial reporting requirements.
- our lack of extensive experience in manufacturing and marketing our products may impact our ability to sustain a profitable commercial market for our new and existing products;
- unit orders will not ship, be installed and/or converted to revenue, in whole or in part;
- pending orders may not convert to purchase orders, in whole or in part;
- if our stock price continues to remain below $1.00, our common stock may be subject to delisting from The NASDAQ Stock Market;
- the cost and timing of developing, marketing and selling our products and our ability to raise the necessary capital to fund such costs;
- 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 and elsewhere in this prospectus. 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.

The forward-looking statements in this prospectus represent our views as of the date of this prospectus. We anticipate that subsequent events and developments will cause our views to change. However, while we may elect to update these forward-looking statements at some point in the future, we have no current intention of doing so except to the extent required by applicable law. You should, therefore, not rely on these forward-looking statements as representing our views as of any date subsequent to the date of this prospectus.

USE OF PROCEEDS

We estimate that our net proceeds from the sale of shares of our common stock and warrants to purchase common stock by us in this offering will be approximately $ million based on an assumed public offering price of $ per share, which was the last reported sale price of our common stock on January , 2013, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We currently intend to use all of the net proceeds of this offering received by for working capital and other general corporate purposes, including capital expenditures. The amount of what, and timing of when, we actually spend for these purposes may vary significantly and will depend on a number of factors, including our future revenue and cash generated by operations and the other factors described under Risk Factors in this prospectus. Accordingly, our management will have broad discretion in applying a portion of the net proceeds of this offering. Pending these uses, we intend to invest the net proceeds in high quality, investment grade, short-term fixed income instruments which include corporate, financial institution, federal agency or U.S. government obligations.

PRICE RANGE OF COMMON STOCK

Our common stock has traded on The NASDAQ Stock Market under the symbol PLUG since June 21, 2011 and under the symbol PLUGD prior to June 20, 2011. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported on The NASDAQ Stock Market.

	Sales prices	
	High	Low
2013		
1st Quarter (through January 14, 2013)	$0.76	$0.47
2012		
1st Quarter	$2.60	$1.26
2nd Quarter	$1.41	$1.10
3rd Quarter	$1.30	$0.76
4th Quarter	$0.92	$0.47
2011		
1st Quarter	$10.70	$3.60
2nd Quarter	$7.80	$1.91
3rd Quarter	$2.63	$1.35
4th Quarter	$2.71	$1.50

On January 14, 2013, the last reported closing price of our common stock on The NASDAQ Stock Market was $0.59. On January 14, 2013, we had approximately 631 holders of record of our common stock.

DIVIDEND POLICY

We have never declared or paid cash dividends on our common stock and do not anticipate paying cash dividends in the foreseeable future. We currently intend to retain all available funds and any future earnings to fund the development and growth of our business. Any future determination as to the payment of dividends will depend upon capital requirements and limitations imposed by our credit agreements, if any, and such other factors as our board of directors may consider. Investors should not purchase our common stock with the expectation of receiving cash dividends.

CAPITALIZATION

The following table sets forth our capitalization as of September 30, 2012:

on an actual basis;

on a pro forma basis to give further effect to our sale in this offering of shares of our common stock at an assumed offering price of $ per share, which was the last reported sale price of our common stock on January , 2013, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

	As of September 30, 2012	
	(Unaudited) (*in thousands*)	
	Actual	**Pro Forma**
Cash and cash equivalents	$ 9,461	$
Stockholders equity (deficit):		
Common stock, $0.01 par value per share; 245,000,000 shares authorized, actual and pro forma; 38,197,255 shares issued and outstanding (including 165,906 shares in treasury), actual; shares issued and outstanding, pro forma	$ 382	
Additional paid-in capital	801,352	
Accumulated other comprehensive income	1,035	
Accumulated deficit	(778,172)	
Less common stock in treasury:		
165,906 shares	(1,552)	
Total stockholders equity	23,045	
Total capitalization	$ 32,506	$

The number of shares of our common stock to be outstanding after the offering is based on 38,197,255 shares of common stock outstanding as of September 30, 2012 and excludes:

1,999,521 shares of common stock issuable upon exercise of outstanding options as of September 30, 2012 at a weighted average exercise price of $9.01 per share (of which options to acquire 665,305 shares of common stock are vested as of September 30, 2012);

275,262 shares of common stock issuable upon the exercise of unvested restricted stock awards outstanding as of September 30, 2012;

5,485,229 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2012;

9,421,008 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2012, which number of shares will increase as a result of the offering due to anti-dilution provisions contained in such warrants; and

shares of common stock issuable upon the exercise of the warrants to be sold in this offering.

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

You should read this table in conjunction with the sections of this prospectus entitled Selected Consolidated Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations and our financial statements and related notes included elsewhere in this prospectus.

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 September 30, 2012 was approximately $17.1 million, or $0.45 per share of our common stock, based upon 38,031,349 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 September 30, 2012. 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 up to shares of our common stock in this offering at the public offering price of $ per combination and after deducting the underwriting discounts and commissions and estimated offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2012 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 combination		$
Net tangible book value per share as of September 30, 2012	$0.45	
Increase in net tangible book value per share attributable to this offering		
Adjusted net tangible book value per share as of September 30, 2012 after giving effect to this offering		
Dilution in net tangible book value per share to new investors		

If the underwriter exercises in full its option to purchase additional shares of common stock and warrants to purchase up to 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 38,197,255 shares of common stock outstanding as of September 30, 2012 and excludes:

- 1,999,521 shares of common stock issuable upon exercise of outstanding options as of September 30, 2012 at a weighted average exercise price of $9.01 per share (of which options to acquire 665,305 shares of common stock are vested as of September 30, 2012);
- 275,262 shares of common stock issuable upon the exercise of unvested restricted stock awards outstanding as of September 30, 2012;
- 5,485,229 shares of our common stock reserved for future issuance under our equity incentive plans as of September 30, 2012;
- 9,421,008 shares of common stock issuable upon the exercise of warrants outstanding as of September 30, 2012, which number of shares will increase as a result of the offering due to anti-dilution provisions contained in such warrants; and
- shares of common stock issuable upon the exercise of the warrants to be sold in this offering.

The above share information assumes no exercise by the underwriter of its over-allotment option.

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. Also, as a result of this offering, the exercise price of our existing 2011 five-year warrants to purchase shares of our common stock, which was adjusted from $3.00 to $2.27 in March of 2012, will be adjusted downward further from $2.27 to $ in accordance with the weighted-average anti-dilution provisions of such warrants, and the number of shares issuable upon exercise of such warrants would increase from shares to shares, both of which could result in further dilution to our stockholders. See Risk Factors Investors in this offering will experience immediate and substantial dilution .

SELECTED CONSOLIDATED FINANCIAL DATA

The following tables present selected financial data and other operating information for the periods indicated. The consolidated statement of operations and comprehensive income (loss) data for the years ended December 31, 2009, 2010 and 2011 and the balance sheet data as of December 31, 2010 and 2011 have been derived from our audited consolidated financial statements included elsewhere in this prospectus. The consolidated statement of operations and comprehensive income (loss) data for the years ended December 31, 2007 and 2008 and the balance sheet data as of December 31, 2007, 2008 and 2009 and September 30, 2011 have been derived from our audited consolidated financial statements and unaudited interim consolidated financial statements, respectively, that are not included in this prospectus. The consolidated statement of operations and comprehensive income (loss) data for the nine months ended September 30, 2011 and 2012 and the consolidated balance sheet data as of September 30, 2012 have been derived from our unaudited interim consolidated financial statements that are included elsewhere in this prospectus. The unaudited consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements, and in the opinion of management, reflect all adjustments of a normal recurring nature considered necessary to present fairly our financial position for such periods. Our historical results are not necessarily indicative of future operating results, and the interim results set forth below are not necessarily indicative of expected results for the year ended December 31, 2012 or for any future period.

Effective January 1, 2012, the company adopted the Financial Accounting Standards Board s Accounting Standards Update (ASU) No. 2011-5, Comprehensive Income (Topic 220): Presentation of Comprehensive Income, as amended by ASU 2011-12, Comprehensive Income (Topic 220): Deferral of the Effective Date for Amendments to the Presentation of Reclassifications of Items Out of Accumulated Other Comprehensive Income in Accounting Standards Update No. 2011-05. These updates revise the manner in which entities present comprehensive income in their financial statements. The statement of comprehensive income (loss) data presented below revises historical information to illustrate the new presentation required by this pronouncement for those periods prior to adoption.

You should read the information presented below in conjunction with our audited consolidated financial statements and related notes and other financial information included herein, and the sections entitled Capitalization , Prospectus Summary Summary Consolidated Financial Data and Management s Discussion and Analysis of Financial Condition and Results of Operations.

	Years Ended December 31,					Nine Months Ended September 30,	
	2007	2008	2009	2010	2011	2011	2012
	(in thousands, except per share data)						
Statements Of Operations:							
Product and service revenue......................................	$3,082	$4,667	$4,833	$15,739	$23,223	$11,927	$18,712
Research and development contract revenue........	13,189	13,234	7,460	3,598	3,886	3,342	1,475
Licensed technology revenue...................................	-	-	-	136	517	489	-
Total revenue...	16,271	17,901	12,293	19,473	27,626	15,758	20,187
Cost of product and service revenue.......................	9,399	11,442	7,246	23,111	30,670	19,188	28,552
Cost of research and development contract revenue..	19,045	21,505	12,433	6,371	6,232	5,506	2,390
Research and development expense.......................	39,218	34,987	16,324	12,901	5,656	3,648	4,090
Selling, general and administrative expenses.........	19,323	28,333	15,427	25,572	14,546	11,051	10,556
Goodwill impairment charge....................................	-	45,843	-	-	-	-	-
Gain on sale of assets..	-	-	-	(3,217)	(673)	(673)	-
Amortization of intangible assets............................	1,614	2,225	2,132	2,264	2,322	1,755	1,727
Other income (expense), net.....................................	11,757	4,734	560	570	3,673	4,429	3,740
Net loss..	(60,571)	(121,700)	(40,709)	(46,959)	(27,454)	(20,286)	(23,388)
Loss per share, basic and diluted..............................	$(6.94)	$(13.62)	$(3.15)	$(3.58)	$(1.46)	$(1.16)	$(0.71)

Weighted average number of common shares outstanding	8,734	8,938	12,911	13,123	18,778	17,442	33,107
Statements of Comprehensive Income (Loss) Data:							
Net Loss	$(60,571)	$(121,700)	$(40,709)	$ (46,959)	$ (27,454)	$(20,286)	$(23,388)
Other comprehensive (loss) income:							
Foreign currency translation gain (loss)	7,739	(8,325)	1,294	277	(56)	(74)	107
Unrealized gain (loss) on available-for-sale securities	142	156	(131)	(114)	19	19	-
Comprehensive Loss	$(52,690)	$(129,869)	$(39,546)	$(46,796)	$(27,491)	$(20,341)	$(23,281)
Balance Sheet Data:							
(at end of the period)							
Unrestricted cash, cash equivalents and available-for-sale securities	$165,701	$104,688	$62,541	$21,359	$13,857	$22,802	$9,461
Trading securities auction rate debt securities	-	52,651	53,397	-	-	-	-
Total assets	268,392	209,112	164,185	59,177	55,656	53,312	45,567
Borrowings under line of credit	-	62,875	59,375	-	5,405	-	1,000
Current portion of long-term obligations	1,384	401	533	-	-	-	-
Long-term obligations	4,580	1,313	2,426	3,141	9,577	5,768	6,426
Stockholders' equity	248,900	125,864	88,269	42,913	29,036	35,728	23,045
Working capital	163,906	86,171	60,009	25,556	22,452	24,543	15,584

MANAGEMENT S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis of our financial condition and results of operations should be read together with our consolidated financial statements and the related notes and the other financial information included elsewhere in this prospectus. This discussion contains forward-looking statements that involve risks and uncertainties. Our actual results could differ materially from those anticipated in these forward-looking statements as a result of various factors, including those discussed below and elsewhere in this prospectus, particularly those under Risk Factors. Dollars in tabular format are presented in thousands, except share and per share data, or otherwise indicated.

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 continue to leverage our unique fuel cell application and integration knowledge to identify early adopter markets for which we can design and develop innovative systems and customer solutions that provide superior value, ease-of-use and environmental design. We have made significant progress in our analysis of the material handling market. We believe we have developed reliable products which allow the end customers to eliminate incumbent power sources from their operations, and realize their sustainability objectives through clean energy alternatives.

In October, 2011 we introduced our next generation GenDrive products. These next generation fuel cell units include a simplified architecture featuring 30% fewer components, giving customers greater flexibility in managing their deployments. By the third quarter of 2012, the majority of units produced and shipped were based on the simplified architecture. During the fiscal year ended December 31, 2012, we received new orders from Stihl, Mercedes Benz, Lowe s, Carter s and Ace Hardware. We also experienced add-on orders from Walmart, P&G, Coca-Cola, Sysco, Wegmans, Kroger and BMW.

We have experienced and continue to experience negative cash flows from operations and we expect to continue to incur net losses in the foreseeable future. Accordingly, in 2010, we restructured and consolidated our operations to focus on the GenDrive business. This restructuring significantly reduced our operating expenses in 2011. We have since further restructured by adopting a restructuring plan on December 11, 2012, aimed at improving organizational efficiency and conserve working capital needed to support the growth of our GenDrive business. As a result of the recent restructuring, we expect to reduce annual expenses by $3.0 to $4.0 million.

As of September 30, 2012, we had approximately $15.6 million of working capital, which includes $9.5 million of cash and cash equivalents to fund our future operations. We currently estimate that we had, as of December 31, 2012, cash and cash equivalents of approximately $9.4 million and accounts payable of approximately $3.5 million. We also estimate that as of December 31, 2012, of our total accounts payable, approximately $1.6 million were more than 30 days past due and approximately $0.3 million were more than 120 days past due. Our future liquidity and capital requirements will depend upon numerous factors, including those identified under the heading Risk Factors above. As a result, we can provide no assurance that we will be able to fund our operations without additional external financing. If adequate funds are not available, we may be required to reduce and/or cease our operations and/or seek bankruptcy protection.

We are party to a Loan and Security Agreement with Silicon Valley Bank, or SVB, dated as of August 9, 2011 and modified most recently on November 29, 2012, which provides us with access of up to $15 million financing, subject to borrowing base limitations, to support working capital needs. Based on the borrowing base calculation and our current outstanding loan balance, we currently do not have any availability under this facility.

We believe that our current cash, cash equivalents and cash generated from future sales, as well as the cash proceeds from this offering, will provide sufficient liquidity to fund operations through the end of 2013. This projection is based on our current expectations regarding product sales, cost structure, cash burn rate and operating assumptions. To date, we have funded our operations primarily through public and private offerings of our common and preferred stock, our line of credit and maturities and sales of our available-for-sale securities. We anticipate incurring substantial additional losses and may never achieve profitability.

In the event that our operating expenses are higher than anticipated or the gross margins and shipments of our GenDrive products do not increase as we expect, we may be required to implement contingency plans within our control to conserve and/or enhance our liquidity to meet operating needs. Such plans include: our ability to further reduce discretionary expenses, monetize our real estate assets through a sale-leaseback arrangement and obtain additional funding from licensing the use of our technologies. Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, and continued development and expansion of our products. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments, the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of building a sales base; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the extent to which our products gain market acceptance; the timing and costs of product development and introductions; the extent of our ongoing and any new research and development programs; and changes in our strategy or our planned activities. If we are unable to fund our operations without additional external financing and therefore cannot sustain future operations, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection. Alternatives we would consider for additional funding include equity or debt financing, a sale-leaseback of our real estate, or licensing of our technology. In addition to raising capital, we may also consider strategic alternatives including business combinations, strategic alliances or joint ventures. Under such conditions, if we are unable to obtain additional capital in 2013, we may not be able to sustain our future operations and may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection. After this offering, we cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. Given the difficult current economic environment, we believe that it could be difficult to raise additional funds and there can be no assurance as to the availability of additional financing or the terms upon which additional financing may be available.

Additionally, even if we raise sufficient capital through additional equity or debt financing, strategic alternatives or otherwise, there can be no assurances that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. Similarly, if our common stock is delisted from the NASDAQ Capital Market, it may limit our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

Recent Developments

Loan and Security Agreement. On August 9, 2011, we entered into a revolving credit facility arrangement, or the Loan Agreement with SVB providing availability to an additional $7.0 million to support working capital needs See "Liquidity and Capital Resources" for further disclosure on the credit facility with SVB. On September 28, 2011, we executed a First Loan Modification Agreement, or the Loan Modification, with SVB, amending the Loan Agreement. The Loan Modification removed the $750,000 sublimit for outstanding letters of credit, foreign exchange contract financing and amounts utilized for cash management services, making the full $7.0 million credit facility available for financing accounts receivable and eligible inventory. All remaining terms of the Loan and Security Agreement remain in full force and effect. On March 30, 2012, we executed a Second Loan Modification Agreement with SVB which increased our credit facility, providing us access of up to $15.0 million financing, subject to borrowing base limitations, to support working capital needs. On November 29, 2012 we executed a Third Loan Modification Agreement with SVB, which, among other things, waived our failure to comply with the Adjusted Quick Ratio financial covenant as of the months ended September 30, 2012 and October 31, 2012, revised the future Adjusted Quick Ratio covenant level and removed our ability to request financing for Inventory Placeholder Invoices. Based on the borrowing base calculation and our outstanding loan balance, we currently have no availability under this facility.

NASDAQ Notice. On October 12, 2012, we received a deficiency notice from The NASDAQ Stock Market, or NASDAQ, stating that we no longer comply with NASDAQ Marketplace Rule 5550(a)(2) because the bid price of our common stock closed below the required minimum $1.00 per share for the previous 30 consecutive business days. The notice also indicated that, in accordance with Marketplace Rule 5810(c)(3)(A), we have a period of 180 calendar days, until April 10, 2013, to regain compliance with Rule 5550(a)(2). If at any time before April 10, 2013 the bid price of our common stock closes at $1.00 per share or more for a minimum of 10 consecutive business days, NASDAQ will notify us that we have regained compliance with Rule 5550(a)(2). In the event we do not regain compliance with Rule 5550(a)(2) prior to the expiration of the 180-day period, NASDAQ will notify us that our common stock is subject to delisting. We may appeal the delisting determination to a NASDAQ hearing panel and the delisting will be stayed pending until the panel's determination. At such hearing, we would present a plan to regain compliance and NASDAQ would then subsequently render a decision. We are currently evaluating our alternatives to resolve the listing deficiency.

Restructuring. On December 11, 2012, we adopted a restructuring plan to improve organizational efficiency and conserve working capital needed to support the growth of our GenDrive business. In doing so, 22 full-time positions were eliminated at our U.S. facilities. This workforce reduction was substantially completed on December 13, 2012.

As a result of the restructuring, we expect to reduce annual expenses by $3.0 to $4.0 million. We currently estimate that we will incur pre-tax restructuring charges in the fourth quarter resulting from the restructuring of approximately $600,000 related to severance pay and other related costs. We expect to pay the majority of these restructuring charges within the next few months. The estimates of total charges and cash expenditures that we expect to incur in connection with the restructuring, and the timing thereof, is subject to a number of assumptions, and actual results may materially differ from those stated above.

Financial Overview

Product and service revenue. Product and service revenue relates to revenue recognized from multiple deliverable revenue arrangements. Effective April 1, 2010, we adopted ASU No. 2009-13 on Topic 605, Revenue Recognition Multiple Deliverable Revenue Arrangements retroactive to January 1, 2010. ASU No. 2009-13 amends the FASB ASC to eliminate the residual method of allocation for multiple-deliverable revenue arrangements, and requires that arrangement consideration be allocated at the inception of an arrangement to all deliverables using the relative selling price method (see note 18 of our consolidated financial statements for further discussion of our multiple-deliverable revenue arrangements).

For all product and service revenue transactions entered into prior to the implementation of ASU No. 2009-13, we will continue to defer the recognition of product and service revenue and recognize revenue on a straight-line basis as the continued service, maintenance and other support obligations expire, which are generally for periods of twelve to thirty months, or which can extend over multiple years. While contract terms for those transactions generally required payment shortly after shipment or delivery and installation of the fuel cell system and were not contingent on the achievement of specific milestones or other substantive performance, the multiple-element revenue obligations within our contractual arrangements were generally not accounted for separately based on our limited experience and lack of evidence of fair value of the undelivered components.

Research and development contract revenue. Research and development contract revenue primarily relates to cost reimbursement research and development contracts associated with the development of PEM fuel cell technology. We generally share in the cost of these programs with our cost-sharing percentages generally ranging from 30% to 50% of total project costs. Revenue from time and material contracts is recognized on the basis of hours expended plus other reimbursable contract costs incurred during the period. We expect to continue certain research and development contract work that is related to our current product development efforts.

Licensed technology revenue. Licensed technology revenue relates to the sale of licensing rights and engineering assistance. This revenue was being amortized over a twelve month period that ended in October 2011.

Cost of product and service revenue. Cost of product and service revenue includes the direct material and labor cost as well as an allocation of overhead costs that relate to the manufacturing of products we sell. In addition, cost of product and service revenue also includes the labor and material costs incurred for product maintenance, replacement parts and service under our contractual obligations.

Cost of research and development contract revenue. Cost of research and development contract revenue includes costs associated with research and development contracts including: cash and non-cash compensation and benefits for engineering and related support staff, fees paid to outside suppliers for subcontracted components and services, fees paid to consultants for services provided, materials and supplies used and other directly allocable general overhead costs allocated to specific research and development contracts.

Research and development expense. Research and development expense includes: materials to build development and prototype units, cash and non-cash compensation and benefits for the engineering and related staff, expenses for contract engineers, fees paid to outside suppliers for subcontracted components and services, fees paid to consultants for services provided, materials and supplies consumed, facility related costs such as computer and network services, and other general overhead costs associated with our research and development activities.

Selling, general and administrative expenses. Selling, general and administrative expenses includes cash and non-cash compensation, benefits and related costs in support of our general corporate functions, including general management, finance and accounting, human resources, selling and marketing, information technology and legal services.

Gain on Sale of Assets. Gain on sale of assets represents the gain on sale of leased assets during the nine months ended September 30, 2012, the nine months ended September 30, 2011 and the year ended December 31, 2011, and the sale of inventory, equipment and certain other assets during the year ended December 31, 2010. In December 2010, we assigned all of our rights, title and interest in its leased property to Somerset Capital Group, Ltd., or Somerset. Due to contingent provisions in the agreement, the full amount of the sale could not be recognized at the time. During the quarter ended September 30, 2011 the contingent provisions of the agreement were met, and an additional $673,000 was recorded as gain on sale of leased assets.

Effective October 26, 2010, we licensed the intellectual property relating to our stationary power products, GenCore and GenSys, to IdaTech plc on a non-exclusive basis. We maintain ownership of, and the right to use, the patents and other intellectual property licensed to IdaTech. As part of the transaction, we also sold inventory, equipment and certain other assets related to our stationary power business. Total consideration for the licensing and assets was $5 million and was received during October 2010. This consideration was net against costs incurred to close the transaction. Accordingly, $3.2 million was recorded to gain on sale of assets in 2010.

Amortization of intangible assets. Amortization of intangible assets represents the amortization associated with our acquired identifiable intangible assets from Plug Power Canada Inc., including acquired technology and customer relationships, which are being amortized over eight years.

Interest and other income and net realized gains from available-for-sale securities. Interest and other income and net realized gains from available-for-sale securities consists primarily of interest earned on our cash, cash equivalents, available-for-sale and trading securities, other income, and the net realized gain/loss from the sale of available-for-sale securities.

Change in fair value of common stock warrant liability. We account for common stock warrants in accordance with applicable accounting guidance provided in ASC 815, Derivatives and Hedging Contracts in Entity s Own Equity, as either derivative liabilities or as equity instruments depending on the specific terms of the warrant agreement. Derivative warrant liabilities are valued using the Black-Scholes pricing model at the date of initial issuance and each subsequent balance sheet date. Changes in the fair value of the warrants are reflected in the consolidated statement of operations as change in the fair value of common stock warrant liability.

Gain on auction rate debt securities repurchase agreement. In December 2008, we entered into a Repurchase Agreement with the third-party lender which may require the third-party lender to repurchase the auction rate debt securities pledged as collateral for the Credit Line Agreement, at their par value, from June 30, 2010 through July 2, 2012. As a result of the Repurchase Agreement entered into with a third party lender in December 2008, we reclassified the auction rate debt securities from available-for-sale securities to trading securities. We elected to record this item at its fair value in accordance with FASB ASC No. 825-10-25, Fair Value Option. The third-party lender repurchased the securities on July 1, 2010 in accordance with the Repurchase Agreement. The corresponding Credit Line Agreement was paid in full on July 1, 2010 in conjunction with the repurchase of the auction rate debt securities. The change in fair value of approximately $6.0 million and $4.2 million during the years ended December 31, 2010 and 2009, respectively was recorded as a loss in the consolidated statements of operations which is offset by the change in fair value of the auction rate debt securities held as collateral of approximately $6.0 million and $4.2 million that is recorded as a gain in the consolidated statements of operations for the years ended December 31, 2010 and 2009, respectively.

Interest and other expense and foreign currency gain (loss). Interest and other expense and foreign currency gain (loss) consists of interest related to the Loan and Security Agreement, loan modification fees related to the Credit Line Agreement, and foreign currency exchange gain (loss).

Income taxes. We did not report a benefit for federal and state income taxes in the condensed consolidated financial statements for the nine months ended September 30, 2012, the nine months ended September 30, 2011, the year ended December 31, 2011 or the years ended December 31, 2010 and 2009 as the deferred tax asset generated from our net operating loss has been offset by a full valuation allowance because it is more likely than not that the tax benefits of the net operating loss carry forward will not be realized.

Critical Accounting Estimates

The preparation of financial statements in conformity with generally accepted accounting principles and related disclosures requires management to make estimates and assumptions.

We believe that the following are our most critical accounting estimates and assumptions we must make in the preparation of our Consolidated Financial Statements and related disclosures:

Revenue recognition: Our fuel cell systems are designed to replace incumbent electric power technologies in material handling equipment. Our current product offerings are intended to offer complementary, quality power while demonstrating the market value of fuel cells as a preferred form of alternative distributed power generation. Subsequent enhancements to our initial product are expected to expand the market opportunity for fuel cells by lowering the installed cost, decreasing operating and maintenance costs, increasing efficiency and improving reliability.

Effective April 1, 2010, we adopted ASU No. 2009-13 on Topic 605, Revenue Recognition Multiple Deliverable Revenue Arrangements retroactive to January 1, 2010. The objective of this ASU is to address the accounting for multiple-deliverable arrangements to enable vendors to account for products or services (deliverables) separately rather than as a combined unit. Vendors often provide multiple products or services to their customers. Those deliverables often are provided at different points in time or over different time periods. This ASU provides amendments to the criteria in Subtopic 605-25 for separating consideration in multiple-deliverable arrangements. The amendments in this ASU establish a selling price hierarchy for determining the selling price of a deliverable. The selling price used for each deliverable will be based on vendor-specific objective evidence, or VSOE if available, third-party evidence, or TPE if VSOE is not available, or estimated selling price, or ESP if neither VSOE nor TPE is available. The amendments in this ASU also replace the term fair value in the revenue allocation guidance with selling price to clarify that the allocation of revenue is based on entity-specific assumptions rather than assumptions of a marketplace participant and expands the disclosure requirements related to a vendor s multiple-deliverable revenue arrangements.

We enter into multiple-deliverable revenue arrangements that may contain a combination of fuel cell systems or equipment, installation, service, maintenance, fueling and other support services. We were previously prohibited from separating these multiple deliverables into individual units of accounting without VSOE of fair value or other TPE of fair value. This evidence was not available due to our limited experience and lack of evidence of fair value of the undelivered components of the sale. Without this level of evidence, we had to treat each sale as a single unit of accounting and defer the revenue recognition of each sale, recognizing revenue over a straight-line basis as the continued service, maintenance and other support obligations expired. Under ASU No. 2009-13, the requirement to have VSOE or TPE in order to recognize revenue has been modified, and it now allows the vendor to make its best estimate of the standalone selling price of deliverables when more objective evidence of selling price is not available.

For all product and service revenue transactions entered into prior to the implementation of ASU No. 2009-13, we will continue to defer the recognition of product and service revenue and recognize revenue on a straight-line basis as the continued service, maintenance and other support obligations expire, which are generally for periods of twelve to thirty months, or which extend over multiple years. While contract terms for those transactions generally required payment shortly after shipment or delivery and installation of the fuel cell system and were not contingent on the achievement of specific milestones or other substantive performance, the multiple-element revenue obligations within our contractual arrangements were generally not accounted for separately based on our limited experience and lack of evidence of fair value of the undelivered components. See Note 18 of our consolidated financial statements for further discussion of our multiple-deliverable revenue arrangements.

Product warranty reserve: The product and service revenue contracts entered into as of January 1, 2010 generally provide a one to two-year product warranty to customers from date of shipment. We currently estimate the costs of satisfying warranty claims based on an analysis of past experience and provide for future claims in the period the revenue is recognized. We carefully monitor the warranty work requested by our customers and management believe that our current warranty reserve appears adequate as of September 30, 2012. Our product and service warranty reserve as of September 30, 2012 was approximately $3.0 million and is included in product warranty reserve in the consolidated balance sheets.

In addition to the standard product warranty, we have entered into certain contracts with customers that include extended warranty and maintenance terms of five to ten years from the date of installation. These contracts are accounted for as a deliverable in accordance with ASU 2009-13, and accordingly, revenue generated from these transactions is deferred and recognized in income over the warranty period. The fair value of the extended warranty and maintenance deliverable has been estimated using the projected cash outflows to meet the obligations in the related contract. Projected cash outflows have been determined using estimated product run hours, failure rates and other assumptions based on our historical experience. For more detailed information, see the Risk Factor - Certain

GenDrive component quality issues have resulted in adjustments to our warranty reserves, which negatively impacted our results and delayed our new order momentum, and unanticipated future product reliability and quality issues could impair our ability to service long term warranty and maintenance contracts profitably.

Valuation of long-lived assets: We assess the impairment of long-lived assets, including identifiable intangible assets, whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important that could trigger an impairment review include, but are not limited to, the following:

- significant underperformance relative to expected historical or projected future operating results;
- significant changes in the manner of our use of the acquired assets or the strategy for our overall business;
- significant negative industry or economic trends;
- significant decline in our stock price for a sustained period; and
- our market capitalization relative to net book value.

When we determine that the carrying value of long-lived assets, including identifiable intangible assets, may not be recoverable based upon the existence of one or more of the above indicators of impairment, we would measure any impairment based upon the provisions of FASB ASC No. 350-35-30-14, Intangibles - Goodwill and Other and FASB ASC No. 360-10-35-15, Impairment or Disposal of Long-Lived Assets, as appropriate. Any resulting impairment loss could have a material adverse impact on our financial condition and results of operations.

Stock Based Compensation: We recognize stock-based compensation expense associated with the vesting of share based instruments in the consolidated statements of operations. Determining the amount of stock-based compensation to be recorded requires us to develop estimates to be used in calculating the grant-date fair value of stock options. We calculate the grant-date fair values using the Black-Scholes valuation model. The Black-Scholes model requires us to make estimates of the following assumptions:

Expected volatility The estimated stock price volatility was derived based upon our actual stock prices over an historical period equal to the expected life of the options, which represents our best estimate of expected volatility.

Expected option life Our estimate of an expected option life was calculated in accordance with the simplified method for calculating the expected term assumption. The simplified method is a calculation based on the contractual life and vesting terms of the associated options.

Risk-free interest rate We use the yield on zero-coupon U.S. Treasury securities having a maturity date that is commensurate with the expected life assumption as the risk-free interest rate.

The amount of stock-based compensation recognized during a period is based on the value of the portion of the awards that are ultimately expected to vest. FASB ASC No. 718-10-55, Compensation - Stock Compensation Overall Implementation and Guidance Illustrations, requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The term forfeitures is distinct from cancellations or expirations and represents only the unvested portion of the surrendered option. We review historical forfeiture data and determine the appropriate forfeiture rate based on that data. We re-evaluate this analysis periodically and adjust the forfeiture rate as necessary. Ultimately, we will recognize the actual expense over the vesting period only for the shares that vest.

Comparison of Nine Months Ended September 30, 2012 and Nine Months Ended September 30, 2011

Product and service revenue. Product and service revenue for the nine months ended September 30, 2012 increased $6.8 million, or 57.1%, to $18.7 million from $11.9 million for the nine months ended September 30, 2011. During the nine months ended September 30, 2012, we shipped 873 fuel cell systems to end customers as compared to 412 fuel cell systems shipped during the nine months ended September 30, 2011. During the nine months ended September 30, 2012, and September 30, 2011, we deferred $3.3 million and $1.1 million in revenue, respectively, due to contingent provisions in our agreements, as well as certain deliverables where the criteria for recognition have not yet been met. Additionally, in the nine months ended September 30, 2012, we recognized approximately $1.7 million of deferred revenue in connection with deliverables that met the criteria for recognition, whereas in the nine months ended September 30, 2011, we recognized approximately $1.1 million of deferred revenue associated with deliverables that met the criteria for recognition.

Research and development contract revenue. Research and development contract revenue for the nine months ended September 30, 2012 decreased approximately $1.8 million, or 54.5%, to $1.5 million from $3.3 million for the nine months ended September 30, 2011. The decrease was primarily related to fewer active projects in 2012. Additionally, in the nine months ended September 30, 2011, we shipped 40 fuel cell systems under two separate Department of Defense contracts.

Licensed technology revenue. Licensed technology revenue for the nine months ended September 30, 2011 was approximately $489,000. There was no licensed technology revenue in 2012.

Cost of product and service revenue. Cost of product and service revenue for the nine months ended September 30, 2012 increased approximately $9.4 million, or 49.0%, to $28.6 million from $19.2 million for the nine months ended September 30, 2011. The increase in the cost of product and service revenue primarily resulted from $3.3 million in additional expenses for unanticipated warranty claims arising from GenDrive component quality issues that were identified during the quarter ended September 30, 2012. Additionally, during the nine months ended September 30, 2012, we shipped 873 fuel cell systems to end customers as compared to 412 fuel cell systems shipped during the nine months ended September 30, 2011.

Cost of research and development contract revenue. Cost of research and development contract revenue for the nine months ended September 30, 2012 decreased approximately $3.1 million, or 56.4%, to $2.4 million from $5.5 million for the nine months ended September 30, 2011. The decrease was primarily a result of fewer active contracts in 2012, coupled with a lower percentage of cost sharing on active contracts in 2012. Additionally, in the nine months ended September 30, 2011, we shipped 40 fuel cell systems under two separate Department of Defense contracts.

Research and development expense. Research and development expense for the nine months ended September 30, 2012 increased approximately $500,000, or 13.9%, to $4.1 million from $3.6 million for the nine months ended September 30, 2011. This increase in expense was a result of a decrease in engineering personnel charging time to government programs due to fewer government contracts during 2012.

Selling, general and administrative expenses. Selling, general and administrative expenses for the nine months ended September 30, 2012 decreased approximately $500,000, or 4.5%, to $10.6 million from $11.1 million for the nine months ended September 30, 2011. The decrease was primarily the result of restructuring charges of approximately $474,000 recorded during 2011, coupled with a decrease in professional fees incurred during 2012. These expenses were partly offset by an increase in travel expenses, and a decline in selling, general and administrative expenses charged to government programs due to fewer government contracts during 2012.

Amortization of intangible assets. Amortization of intangible assets decreased to approximately $1.7 million for the nine months ended September 30, 2012, compared to approximately $1.8 million for the nine months ended September 30, 2011. The decrease was related to foreign currency fluctuations.

Interest and other income and net realized losses from available-for-sale securities. Interest and other income and net realized losses from available-for-sale securities for the nine months ended September 30, 2012 decreased approximately $50,000, or 22.6%, to $171,000 from $221,000 for the nine months ended September 30, 2011. The decrease was primarily related to a decrease in rental income, partially offset by a realized loss from available-for-sale securities recorded in the first quarter of 2011.

Change in fair value of common stock warrant liability. The change in fair value of common stock warrant liability for the nine months ended September 30, 2012 decreased $500,000 or 11.9%, to $3.7 million from $4.2 million for the nine months ended September 30, 2011. These variances were primarily due to changes in our common stock share price, and changes in volatility of our common stock, which are significant inputs to the Black-Scholes valuation model.

Interest and other expense and foreign currency gain (loss). Interest and other expense and foreign currency gain (loss) for the nine months ended September 30, 2012 and 2011 was approximately $(158,000) and $3,000, respectively. Interest and other expense related to the Credit Line Agreement was approximately $153,000 and $0, respectively, for the nine months ended September 30, 2012 and 2011.

Comparison of the Year Ended December 31, 2011 and Year Ended December 31, 2010

Product and service revenue. Product and service revenue for the year ended December 31, 2011 increased $7.5 million, or 47.6%, to $23.2 million from $15.7 million for the year ended December 31, 2010. This increase was primarily related to increased shipments during the current year. In the product and service revenue category, there were 984 fuel cell shipments for the year ended December 31, 2011 as compared to 562 fuel cell systems shipped for the year ended December 31, 2010.

Research and development contract revenue. Research and development contract revenue for the year ended December 31, 2011 increased $288,000, or 8.0%, to $3.9 million from $3.6 million for the year ended December 31, 2010. The increase was primarily related to two contracts that began in 2011, partially offset by the completion of contracts from prior years. In the research and development category, during the twelve months ended December 31, 2011 we shipped 40 GenDrive fuel cell systems under government programs.

Cost of product and service revenue. Cost of product and service revenue for the year ended December 31, 2011 increased $7.6 million, or 32.7%, to $30.7 million from $23.1 million for the year ended December 31, 2010. The increase was directly related to increased fuel cell shipments to end customers. In the cost of product and service revenue category, there were 984 fuel cell shipments for the year ended December 31, 2011 and 562 fuel cell systems shipped for the year ended December 31, 2010. The increase also included an allocation of overhead costs charged to cost of product and service revenue as a result of increased sales and a focus on commercial production of our product. Accordingly, some of these costs were included in research and development expense until the second quarter of 2010, due to our focus on research and development at that time.

Cost of research and development contract revenue. Cost of research and development contract revenue for the year ended December 31, 2011 decreased $139,000, or 2.2%, to $6.2 million from $6.4 million for the year ended

December 31, 2010. This decrease was primarily related to two new contracts that began in 2011, partially offset by the completion of contracts from prior years.

Research and development expense. Research and development expense for the year ended December 31, 2011 decreased $7.2 million, or 56.2%, to $5.7 million from $12.9 million for the year ended December 31, 2010. This decline was primarily a result of our 2010 restructuring, which was focused on the commercialization of our GenDrive product. Prior to this restructuring our focus had been on research and development.

Selling, general and administrative expenses. Selling, general and administrative expenses for the year ended December 31, 2011 decreased $11.0 million, or 43.1%, to $14.6 million from $25.6 million for the year ended December 31, 2010. This decrease was primarily a result of our May 2010 restructuring plan, including $8.1 million in charges recorded in 2010 for this restructuring, and a $2.1 million write-off of assets from Plug Power Canada.

Amortization of intangible assets. Amortization of intangible assets remained stable at $2.3 million for the years ended December 31, 2011 and December 31, 2010.

Interest and other income and net realized gains from available-for-sale securities. Interest and other income and net realized gains from available-for-sale securities decreased to $248,000 for the year ended December 31, 2011 from $1.1 million for the year ended December 31, 2010. This decrease was primarily related to the sale of trading securities and available-for-sale securities during 2011 and 2010.

Interest and other expense. Interest and other expense for the year ended December 31, 2011 was approximately $22,000, compared to approximately $487,000 for the year ended December 31, 2010 The decline was primarily related to the extinguishment of the Credit Line Agreement effective July 1, 2010.

Comparison of the Year Ended December 31, 2010 and Year Ended December 31, 2009

Product and service revenue. Product and service revenue for the year ended December 31, 2010 increased $10.9 million, or 225.7%, to $15.7 million from $4.8 million for the year ended December 31, 2009. Approximately $10.5 million of the increase was related to the adoption of ASU No. 2009-13.

Research and development contract revenue. Research and development contract revenue for the year ended December 31, 2010 decreased $3.9 million, or 51.8%, to $3.6 million from $7.5 million for the year ended December 31, 2009. The decrease was primarily related to having fewer active contracts in 2010.

Cost of product and service revenue. Cost of product and service revenue for the year ended December 31, 2010 increased $15.9 million, or 218.9%, to $23.1 million from $7.2 million for the year ended December 31, 2009. The increase was primarily related to increased product and service fuel cell system shipments to end customers. In the cost of product and service revenue category, there were 562 fuel cell system shipments for the year ended December 31, 2010, as compared to 117 for the year ended December 31, 2009. This does not include additional shipments of 98 and 140 fuel cell shipments, respectively, that were being accounted for under a lease arrangement (until we subsequently sold the lease). Cost recognized on leased products were recorded on the consolidated balance sheets as investment in leased property and depreciated over the lease term. The increase in cost of product and service revenue was also due to an allocation of overhead costs charged to cost of product and service revenue as a result of increased sales and a focus on commercial production of our product. Accordingly, some of these costs were included in research and development expense until the second quarter of 2010, due to our focus on research and development at that time.

Cost of research and development contract revenue. Cost of research and development contract revenue for the year ended December 31, 2010 decreased $6.1 million, or 48.8%, to $6.4 million from $12.4 million for the year ended December 31, 2009. This decrease was primarily related to having fewer active contracts in 2010.

Research and development expense. Research and development expense for the year ended December 31, 2010 decreased $3.4 million, or 21.0%, to $12.9 million from $16.3 million for the year ended December 31, 2009. This decrease was primarily a result of our 2010 restructuring, and corresponding wind-down of our operations in Plug Power Energy India Private Limited, Plug Power Canada and Plug Power Holland organizations. The decrease was also due to a higher allocation of overhead costs charged to cost of product and service revenue as a result of increased sales and a focus on commercial production of our product. Accordingly, some of these costs were previously included in research and development expense due to our focus on research and development at that time.

Selling, general and administrative expenses. Selling, general and administrative expenses for the year ended December 31, 2010 increased $10.1 million, or 65.8%, to $25.6 million from $15.4 million for the year ended December 31, 2009. This increase was primarily a result of the corporate restructuring plan announced in May 2010, which totaled $8.1 million and a $2.1 million write-off of assets from Plug Power Canada.

Amortization of intangible assets. Amortization of intangible assets increased to $2.3 million for the year ended December 31, 2010, compared to $2.1 million for the year ended December 31, 2009. The increase was related to foreign currency fluctuations.

Interest and other income and net realized gains from available-for-sale securities. Interest and other income and net realized gains from available-for-sale securities decreased to $1.1 million for the year ended December 31, 2010 from $1.7 million for the year ended December 31, 2009. This decrease was primarily related to lower cash balances coupled with lower yields on our investments due to a declining interest rate environment offset by increased rental income received from our Latham facility. Interest income on trading securities and available-for-sale securities for the year ended December 31, 2010 was approximately $352,000 and $179,000, respectively. Interest income on trading securities and available-for-sale securities for the year ended December 31, 2009 was approximately $906,000 and $307,000, respectively.

Interest and other expense. Interest and other expense for the year ended December 31, 2010 was approximately $487,000, compared to approximately $1.1 million for the year ended December 31, 2009. Interest expense related to the Credit Line Agreement was approximately $305,000 and $915,000, respectively, for the years ended December 31, 2010 and 2009, respectively.

Liquidity and Capital Resources

We have experienced recurring operating losses and as of September 30, 2012, we had an accumulated deficit of approximately $778.2 million. Substantially all of our accumulated deficit has resulted from costs incurred in connection with our operating expenses, research and development expenses and from general and administrative costs associated with our operations. To date, we have funded our operations primarily through public and private offerings of our common and preferred stock, our line of credit and maturities and sales of our available-for-sale securities. We anticipate incurring substantial additional losses and may never achieve profitability.

As of September 30, 2012, we had approximately $15.6 million of working capital, which includes $9.5 million of cash and cash equivalents to fund our future operations. Additionally, as of March 30, 2012, we executed a Second Loan Modification Agreement with SVB which increased our credit facility, providing us access of up to $15 million in financing, subject to borrowing base limitations, to support working capital needs. On November 29, 2012 we executed a Third Loan Modification Agreement with SVB, which, among other things, waived our failure to comply with the Adjusted Quick Ratio financial covenant as of the months ended September 30, 2012 and October 31, 2012, revised the future Adjusted Quick Ratio covenant level and removed our ability to request financing for Inventory Placeholder Invoices. Based on the borrowing base calculation and our outstanding loan balance, we currently have no availability under this facility.

We believe that our current cash, cash equivalents and cash generated from future sales, as well as the cash proceeds from this offering, will provide sufficient liquidity to fund operations through the end of 2013. This projection is based on our current expectations regarding product sales, cost structure, cash burn rate and operating assumptions. In the event that our operating expenses are higher than anticipated or the gross margins and shipments of our GenDrive products do not increase as we expect, we may be required to implement contingency plans within our control to conserve and/or enhance our liquidity to meet operating needs. Such plans include: our ability to further reduce discretionary expenses, monetize our real estate assets through a sale-leaseback arrangement and obtain additional funding from licensing the use of our technologies. Our cash requirements relate primarily to working capital needed to operate and grow our business, including funding operating expenses, growth in inventory to support both shipments of new units and servicing the installed base, and continued development and expansion of our products. Our ability to achieve profitability and meet future liquidity needs and capital requirements will depend upon numerous factors, including the timing and quantity of product orders and shipments, the timing and amount of our operating expenses; the timing and costs of working capital needs; the timing and costs of building a sales base; the timing and costs of developing marketing and distribution channels; the timing and costs of product service requirements; the timing and costs of hiring and training product staff; the extent to which our products gain market acceptance; the timing and costs of product development and introductions; the extent of our ongoing and any new research and development programs; and changes in our strategy or our planned activities. As a result, we can provide no assurance that we will be able to fund our operations without additional external financing.

Alternatives we would consider for additional funding include equity or debt financing, a sale-leaseback of our real estate, or licensing of our technology. In addition to raising capital, we may also consider strategic alternatives including business combinations, strategic alliances or joint ventures. Under such conditions, if we are unable to obtain additional capital in 2013, we may not be able to sustain our future operations and may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection. After this offering, we cannot assure you that any necessary additional financing will be available on terms favorable to us, or at all. Given the difficult current economic environment, we believe that it could be difficult to raise additional funds and there can be no assurance as to the availability of additional financing or the terms upon which additional financing may be available. Additionally, even if we raise sufficient capital through equity or debt financing, strategic alternatives or otherwise, there can be no assurances that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted, and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The terms of any debt securities issued could also impose significant restrictions on our operations. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance, and may adversely impact our ability to raise additional funds. Similarly, if our common stock is delisted from the NASDAQ Capital Market, it may limit our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

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

	Years ended or at			Nine months ended or at	
	December 31,			September 30,	
(in thousands)	**2009**	**2010**	**2011**	**2011**	**2012**
Cash and cash equivalents at end of period	$ 14,581	$ 10,955	$ 13,857	$ 22,802	$ 9,461
Trading securities auction rate debt securities at end of period	53,397	-	-	-	-
Available-for-sale securities at end of period	47,960	10,403	-	-	-
Borrowings under line of credit at end of period	59,375	-	5,405	-	1,000
Working capital at end of period	60,009	25,556	22,452	24,543	15,584
Net loss	40,709	46,959	27,454	20,286	23,388
Net cash used in operating activities	38,228	40,770			