

MECHANICAL TECHNOLOGY INC

Form S-1/A

May 22, 2008

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As filed with the Securities and Exchange Commission on May 22, 2008

Registration No. 333-149920

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

**Amendment No. 1  
to**

**Form S-1  
REGISTRATION STATEMENT  
UNDER THE SECURITIES ACT OF 1933**

**MECHANICAL TECHNOLOGY, INCORPORATED**  
*(Exact name of registrant as specified in its charter)*

**New York**  
*(State of  
incorporation)*

**3829, 3629**  
*(Primary Standard Industrial  
Classification Code No.)*

**14-1462255**  
*(I.R.S. Employer  
Identification No.)*

**431 New Karner Road  
Albany, New York 12205  
(518) 533-2200**

*(Address, including zip code and telephone number, including area code of registrant's principal executive offices)*

**Cynthia A. Scheuer  
Vice President, Chief Financial Officer & Secretary  
431 New Karner Road  
Albany, New York 12205  
(518) 533-2200**

*(Address, including zip code and telephone number, including area code of registrant's principal executive offices)*

*with copies to:*

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

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. (Check one):

Large accelerated filer       Accelerated filer       Non-accelerated filer       Smaller reporting company   
(Do not check if a smaller reporting company)

**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 which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.**

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**The information in this prospectus is not complete and may be changed. We may not sell 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 an offer to buy these securities in any state where the offer or sale is not permitted.**

Subject to Completion, Dated May 22, 2008

**7,000,000 Shares of Common Stock  
and  
Warrants to Purchase      Shares of Common Stock**

We are offering 7,000,000 shares of our common stock and warrants to purchase      shares of our common stock in units. For each unit purchased in the offering, investors will receive one share of common stock and warrants to purchase      shares of our common stock at an exercise price of \$      per share. Upon the closing of the offering, the units will separate and the common stock and warrants will be issued separately. The warrants may be exercised at any time during the period commencing on the closing date of this offering and ending on the fifth anniversary of the closing date. Our common stock trades on The Nasdaq Global Market under the symbol MKTY (until June 13, 2008 our symbol will be MKTYD, denoting our reverse stock split on May 15, 2008). The last reported sale price of our common stock on The Nasdaq Global Market on May 21, 2008 was \$3.60 per share.

**Investing in our securities involves risks.  
See Risk Factors beginning on page 6 of this prospectus.**

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

	Per Unit	Total
Public offering price	\$	\$
Underwriting discounts and commissions	\$	\$
Proceeds to us (before expenses)	\$	\$

We have granted the underwriters a 30-day option to purchase up to an additional 1,050,000 units (consisting of 1,050,000 shares and      warrants) to cover over-allotments.

The underwriters expect to deliver the shares and warrants to purchasers on or about      , 2008.

**Merriman Curhan Ford & Co.**

**Ardour Capital Investments, LLC**

**The date of this prospectus is           , 2008**

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You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with information that is different. We are offering to sell, and seeking offers to buy, units only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or of any sale of units. It is important for you to read and consider all information contained in this prospectus in making your investment decision. You should also read and consider the information in the documents we have referred you to in [Where You Can Find Additional Information](#) below.

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Unless the context requires otherwise, in this prospectus the terms [we](#), [us](#), and [our](#) refer to Mechanical Technology, Incorporated, a New York corporation, [MTI Micro](#) refers to MTI MicroFuel Cells Inc., a Delaware corporation and our majority owned subsidiary, and [MTI Instruments](#) refers to MTI Instruments, Inc., a New York corporation and our wholly owned subsidiary. We have a registered trademark in the United States for [Mobion](#). Other trademarks, trade names, and service marks used in this prospectus are the property of their respective owners.





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**PROSPECTUS SUMMARY**

*This summary provides an overview of selected information contained elsewhere in this prospectus and does not contain all of the information you should consider in making an investment decision. You should read carefully the entire prospectus, including the section entitled Risk Factors, beginning on page 6 and our financial statements and the related notes included elsewhere in this prospectus, before making an investment decision.*

**Our Company**

We are developing and commercializing off-the-grid rechargeable portable power source products that generate electrical power, using up to 100% methanol as fuel, for consumer electronic devices. Our portable power source products, utilizing our patented, proprietary direct methanol fuel cell technology platform called Mobion, offer a compelling alternative to lithium-ion and similar rechargeable battery systems currently used by original equipment manufacturers, or OEMs, in many handheld electronic devices, such as mobile phones, digital cameras, and portable media players. We believe our rechargeable portable power source products will offer substantial advantages, such as smaller size, lower weight, longer power life, higher reliability, and greater convenience of use, without the environmental concerns of lithium-ion batteries. Our portable power solution can be implemented as three different product options: a compact external charging device, a snap-on or attached power accessory, or an embedded fuel cell power solution. We have strategic arrangements with Samsung Electronics, with Duracell, part of the Procter & Gamble Company, and with a global Japanese consumer electronics company. We intend to commercialize our first Mobion products in 2009. According to Frost and Sullivan, the global rechargeable battery market for portable electronic devices exceeds \$5 billion.

We also design, manufacture, and sell high-performance test and measurement instruments and systems serving primarily the general dimensional gauging, semiconductor, and aviation industries. These products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing and test markets; semiconductor products for wafer characterization; and engine balancing and vibration analysis systems for military and commercial aircraft.

**Our Markets and Opportunities**

Consumers demand portable electronics that offer an enhanced experience through expanded memory, improved display technologies, constant connectivity, robust software, and a reduced form factor. In addition, technological advances in semiconductor manufacturing, LED displays, memory costs and availability, wireless technologies, and software applications have resulted in a dramatic increase in the number of portable electronic devices, their usage, and power requirements. As a result of these consumer demands and technological advances, there are a number of handheld electronic devices that have been introduced into the market. This trend towards increased functionality in portable electronic devices has led to a power gap, which is the disparity between a device's power supply, typically a rechargeable lithium-ion battery, and its power need. This power gap leads to a need for the end user to plug-in their devices to the electrical grid on a regular basis, which limits their ability to use these electronic devices where and when the need arises.

Improvements in rechargeable battery technology have not kept pace with the evolution of consumer electronic device performance. Over the last ten years, device performance as measured by silicon processor speed has increased by a factor of 128 times, while the energy density of lithium-ion technology has only doubled. In addition to their performance shortfalls, lithium-ion battery technology poses an environmental risk as the various heavy metals incorporated in these batteries require special disposal to prevent contamination of waste disposal sites.

OEMs are actively seeking improved power sources to replace existing rechargeable lithium-ion batteries and to power additional improvements to their mobile electronic devices.

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**Our Solution and Strategies**

At the core of our solution is our proprietary Mobion Chip engine, a design architecture that embodies a reduction in the size, complexity, and cost of fuel cell construction, which results in a reliable, manufacturable, and affordable power solution that we believe provides improved energy density and portability over competing rechargeable battery technologies. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion Chip, and the methanol replacement cartridge. Our current Mobion Chip weighs less than one ounce and is small enough to fit in the palm of one's hand. For these reasons, we believe that our Mobion platform is ideally suited to provide a replacement for rechargeable lithium-ion batteries. Based upon our ability to provide a compact, efficient, clean, safe, and long-lasting power source for lower power applications, we intend to initially target power solutions for handheld consumer electronic applications. Our goal is to become a leading provider of portable power for handheld electronic devices. Key elements of our strategy designed to achieve this objective include the following:

*Business Focus.* We are focusing our efforts on the development and commercialization of our portable power source products. We believe this business provides a higher potential, higher growth opportunity than our test and measurement instrumentation business.

*Design for Mass Manufacturing.* Our portable power source products will be manufactured using standard processes, such as injection molding and automated test and assembly, which are broadly employed throughout the electronics manufacturing industry. In preparing Mobion for commercialization, our current Mobion Chip is injection molded and is being designed for mass manufacturing.

*Outsource Manufacturing.* We plan to outsource manufacturing to expand rapidly and diversify our production capacity. This strategy will allow us to maintain a variable cost model in which we do not incur most of our manufacturing costs until our proprietary fuel cell power solution has been shipped and billed to our customers.

*Utilize our Technology to Provide Compelling Products.* We plan to utilize our intellectual property portfolio and technological expertise to develop and offer portable power source products across multiple electronic device markets. We intend to employ our technological expertise to reduce the overall size and weight of our portable power source products while increasing their ease of manufacturing, power capacity, and power duration, and decreasing their cost.

*Capitalize on Growth Markets.* We intend to capitalize on the growth of the electronic device markets, including new products that may be brought about by the convergence of computing, communications, and entertainment devices. We believe our portable power source products will address the growing need for portability, connectivity, and functionality in the evolving electronic device markets. We plan to offer these power solutions to OEM customers to enable them to offer products that have advantages in terms of size, weight, power duration, and environmental friendliness.

*Develop Strong Customer Relationships.* We plan to develop strong and long-lasting customer relationships with leading electronic device OEMs and to provide them with power solutions for their products. We believe that our portable power source products will enable our OEM customers to deliver an enhanced user experience and to differentiate their products from those of their competitors. We will attempt to enhance the competitive position of our customers by providing them with innovative, distinctive, and high-quality portable power supply products on a timely and cost-effective basis.

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**Our Competitive Strengths**

We believe that our portable power source products will offer the following advantages:

*Off-the-grid power source.* Our products provide users of consumer electronic devices with extended mobility by providing power without having to attach to a wall outlet to recharge their devices.

*Small size and low weight.* The dimensions of our products will enable our OEM customers to reduce the overall size and weight of their products.

*Power density.* Our products will have power density of over 50 mW/cm<sup>2</sup> and high energy efficiencies of 1.4 Wh/cc of methanol.

*Power duration.* Our products will offer longer run time than currently available portable charging systems.

*Ease of manufacturing.* Our products will be manufactured using traditional injection molding techniques that will easily transfer to mass manufacturing production lines.

*Safety.* Our products will utilize methanol fuel, which does not require storage under pressure or at low temperatures.

*Environmentally friendly.* Our products will utilize fully biodegradable methanol fuel.

**Corporate Information**

We were incorporated in New York in 1961. We operate two businesses: our new energy business that is conducted through MTI Micro, a majority owned subsidiary, and our test and measurement instrument business that is conducted through MTI Instruments, a wholly owned subsidiary. We maintain our principal executive offices at 431 New Karner Road, Albany, New York 12205, and our telephone number is (518) 533-2200. Our website is located at [www.mechtech.com](http://www.mechtech.com). The information contained in, or that can be accessed through, our website does not constitute part of this prospectus.

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**The Offering**

Securities Offered	7,000,000 units. Each unit will consist of one share of our common stock and warrants to purchase shares of common stock.
Common Stock	7,000,000 shares.
Warrants	Warrants to purchase shares of common stock. The warrants will be exercisable on or after the closing date of this offering through and including the fifth anniversary of the closing date and will be exercisable at a price of \$ per share of common stock.
Common Stock to be outstanding after this offering	11,771,861 shares.
Over-allotment Option	1,050,000 units (consisting of 1,050,000 shares and warrants).
Use of Proceeds	We expect to use the net proceeds from this offering for research, design, tooling and capital expenditures to support the commercialization of our Mobion portable power source products, and working capital needs and general corporate purposes. We believe the net proceeds of this offering will provide sufficient funds to commercialize our portable power source products. See Use of Proceeds.
Risk Factors	You should carefully consider all of the information contained in this prospectus, and in particular, you should evaluate the specific risks set forth under Risk Factors.
Nasdaq Global Market Symbol	MKTY (until June 13, 2008 our symbol will be MKTYD , denoting our reverse stock split on May 15, 2008).

The number of shares of our common stock to be outstanding after this offering is based on 4,771,861 shares issued and outstanding as of March 31, 2008, but does not include the following:

172,521 shares of common stock reserved for future issuance under our equity incentive plans. As of December 31, 2007, there were 762,391 options outstanding and 625 shares of restricted stock issued under our equity incentive plans;

378,472 shares of common stock issuable upon exercise of outstanding warrants as of March 31, 2008, with an exercise price of \$18.16 per share; and

shares of common stock that will be issued upon exercise of warrants at an exercise price of \$ per share sold as part of the units in this offering.

Except as otherwise indicated, the information contained in this prospectus

includes adjustments in the number of shares of our issued common stock as a result of the reverse split of our common stock that was approved by our stockholders at a meeting held May 15, 2008, pursuant to which every eight shares of our common stock were combined into one share of our common stock; and

assumes no exercise of the underwriters' option to purchase from us an aggregate of 1,050,000 additional units (consisting of 1,050,000 shares of common stock and warrants to purchase an additional shares of common stock).

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The following table sets forth our summary consolidated financial data for the fiscal years ended December 31, 2005, 2006 and 2007, which was derived from our audited consolidated financial statements included elsewhere in this prospectus. The summary consolidated balance sheet data as of March 31, 2008 and the summary consolidated statements of operations data for each of the three months ended March 31, 2007 and 2008 have been derived from the unaudited consolidated financials that are included elsewhere in this prospectus. You should read the following summary consolidated financial data together with the information under Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements (including the related notes thereto).

	Years Ended December 31,			Three Months Ended	
	2005	2006	2007	2007	2008
<b>Statement of Operations Data</b>					
<b>(in thousands except share and per share data):</b>					
Product revenue	\$6,012	\$7,667	\$9,028	\$1,701	\$1,980
Gross profit on product revenue	3,631	4,767	5,598	963	1,140
Funded research and development revenue	1,829	489	1,556	615	173
Research and product development expenses	9,671	12,921	11,765	3,622	2,373
Operating loss	(15,098)	(17,737)	(13,349)	(4,500)	(3,678)
Net loss	\$(15,094)	\$(13,667)	\$(9,575)	\$(3,156)	\$(3,187)
Net loss per share (basic and diluted)	\$(3.93)	\$(3.46)	\$(2.01)	\$(0.66)	\$(0.67)
Weighted average common shares outstanding (basic and diluted)	3,842,201	3,952,793	4,763,547	4,754,868	4,771,861
				<b>March 31, 2008</b>	
				<b>Actual</b>	<b>As Adjusted (1)</b>
<b>Balance Sheet Data (in thousands):</b>					
Cash and cash equivalents				\$ 4,560	\$ 27,504
Securities available for sale (2)				3,537	3,537
Working capital				7,634	30,578
Total assets				14,812	37,756
Current liabilities				4,170	4,170
Long-term liabilities				572	572

Total stockholders' equity (3)(4)	10,045	32,989
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- (1) The as adjusted column reflects the sale of 7,000,000 units by us in this offering at an assumed public offering price of \$3.60 per unit, which is based on the last reported sale price of our common stock on The Nasdaq Global Market on May 21, 2008, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and after giving effect to our receipt of the estimated net proceeds. A \$1.00 increase (decrease) in the assumed public offering price of \$3.60 per unit would increase (decrease) each of cash and equivalents, working capital, total assets, and total stockholders' equity by \$6.4 million, assuming the number of units offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.
- (2) Represents shares of Plug Power Inc., or Plug Power, a Nasdaq-listed company, held for sale by us, classified as current assets, and such amount reflects the fair value of these shares. Through the sale of Plug Power shares, we generated proceeds of \$6.2 million during 2006 and \$5.1 million during 2007 that we have used to fund the development and commercialization of our portable power source business.
- (3) Our ownership percentage of MTI Micro will increase as a result of this offering since proceeds from the offering will be used to make further investments in MTI Micro. Over the last three years, we have increased our ownership in MTI Micro from 89% in 2004 to 96% in 2008.



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**RISK FACTORS**

*Investing in our securities involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus before purchasing our securities. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties of which we are unaware, or that we currently deem immaterial, also may become important factors that affect us. If any of the following risks occur, our business, financial condition, or results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you may lose some or all of your investment.*

**Risks Related to Our Business and Industry**

**We have incurred recurring net losses and anticipate continued net losses as we execute our commercialization plan for our portable power source business.**

We have incurred recurring net losses, including net losses of \$15.1 million in 2005, \$13.7 million in 2006, \$9.6 million in 2007, and \$3.2 million during the three months ended March 31, 2008, which includes a net gain of \$2.5 million from the sale of securities available for sale and a net gain of \$3.0 million on derivatives in 2007 and a net gain of \$333,000 on derivatives during the first three months of 2008. As a result of ongoing operating losses, we had an accumulated deficit of approximately \$108.3 million as of March 31, 2008. We expect to continue to make significant expenditures and incur substantial expenses as we develop and commercialize our proposed portable power source products; develop our manufacturing, sales, and distribution networks; implement internal systems and infrastructure; and hire additional personnel. As a result, we expect to continue to incur continued significant losses as we execute our plan to commercialize our portable power source business and may never achieve or maintain profitability. We will be unable to satisfy our current obligations solely from cash generated from operations or become profitable until we successfully commercialize our portable power source business. If we continue to incur substantial losses and are unable to secure additional sources of funding, we could be forced to discontinue or curtail our business operations; sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

**We have received a going concern report from our independent auditors.**

Our auditors have included an explanatory paragraph in their opinion that accompanies our audited consolidated financial statements as of December 31, 2007, indicating that our recurring losses from operations, net capital deficiency, and current liquidity position raise substantial doubt about our ability to continue as a going concern. The accompanying consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

**Our common stock may be delisted from The Nasdaq Global Market, which may adversely affect our ability to raise capital and stockholders' ability to sell their shares.**

Nasdaq notified us on January 9, 2008 that our common stock could be delisted from The Nasdaq Global Market for failure to maintain a minimum bid price of \$1.00 and that we had until July 7, 2008 to regain compliance with the listing standards of such market. To regain compliance, the closing bid price of our common stock must meet or exceed \$1.00 per share for a minimum of 10 consecutive business days. If compliance is not regained, Nasdaq will notify us of its determination to delist our common stock, which we may appeal to its listings qualification panel. We may alternatively apply to transfer our common stock to The Nasdaq Capital Market if we satisfy all of its requirements, other than the minimum bid price, for initial inclusion on such market. If we elect



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to apply for such a transfer and if such application is approved, we will be afforded the remainder of a second 180 calendar day-period to regain compliance with the minimum bid price rule while listed on The Nasdaq Capital Market.

The eight-to-one reverse stock split of common stock that was approved by our stockholders at a meeting held May 15, 2008 may not, by itself, result in our compliance with the minimum bid price requirement of The Nasdaq Global Market. Furthermore, the market may react negatively to the dilutive effects of this offering, causing a decline in the price of our common stock below the price required by the minimum bid price rule. A delisting from The Nasdaq Global Market may result in a further decline of the price of our common stock and adversely affect our ability to raise capital through the sale of common stock.

**We currently derive all of our product revenue from our test and measurement instrumentation business, but our principal focus is the development and commercialization of our portable power source business.**

We currently derive all of our product revenue from our test and measurement instrumentation business, but our principal focus is the development and commercialization of our portable power source business. Our test and measurement instrumentation business is subject to a number of risks, including the following:

- a slow down or cancellation of sales to the military as a result of a potential redeployment of governmental funding;

- a failure to expand or maintain the business as a result of competition, a lack of brand awareness, or market saturation; and

- an inability to launch new products as a result of intensive competition, uncertainty of new technology development, and developmental timelines.

In addition, our test and measurement instrumentation products can be sold in quantity to a relatively few number of customers, resulting in a customer concentration risk. The loss of any significant portion of such customers or a material adverse change in the financial condition of any one of these customers could have a material adverse effect on our business.

**We have not generated any product revenue from our portable power source business and currently have no portable power source commercial products.**

We have not generated any product revenue from our portable power source business and currently have no portable power source commercial products. The successful development and commercialization of our portable power source products will depend on a number of factors, including the following:

- continuing our research and development efforts;

- finalizing the design of our portable power source products;

- securing OEM customers to incorporate our portable power source products into products sold by them;

- arranging for adequate manufacturing capabilities; and

- completing, refining, and managing our supply chain and distribution channels.

Additionally, our technology is new and complex, and there may be technical barriers to the development of our portable power source products. The development of our portable power source products may not succeed or may be significantly delayed. Our portable power source products will be produced through manufacturing arrangements that have not been finalized or tested on a commercial scale. If we fail to successfully develop or experience significant delays in the

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development of our portable power source products, or if there are significant delays in commercialization, we are unlikely to recover those losses, thus making it impossible for us to become profitable through the sales of these products. This would materially and adversely affect our business and financial condition. If adequate funds are not available, we may have to delay development or commercialization of our portable power source products or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. Any of these factors could harm our business and financial condition.

Any revenue derived in the relatively near-term relating to our portable power source business likely will result from governmental contracts or other governmental funding. We can offer no assurance that we will be able to secure continued government funding. The loss of such contracts or the inability to obtain additional contracts could materially harm our business.

**Although we believe the net proceeds of this offering will provide sufficient funds to commercialize our portable power source products, it is possible that additional funds will be required and we have no commitments for additional financing.**

Although we believe the net proceeds of this offering will provide sufficient funds to commercialize our portable power source products, it is possible that we may need to raise capital above the net proceeds of this offering to fund the commercialization of our portable power source business. We have no commitments for any additional financing should the need arise. If we are unable to secure any necessary additional financing or to raise funds from the sale of our test and measurement instrumentation business should we determine to do so, we may need to delay further commercialization plans. In order to conserve cash and extend operations while we pursue any additional necessary financing, we would be required to reduce operating expenses. There is no assurance that funds raised in any such financing will be sufficient, that the financing will be available on terms favorable to us or to existing stockholders and at such times as required, or that we will be able to obtain the additional financing required for the continued operation and growth of our business. If we raise additional funds by issuing equity securities, our stockholders will experience dilution. Debt financing, if available, may involve restrictive covenants. Any debt financing or additional equity financing may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our research and development programs.

A primary asset of our company is the Plug Power common stock we own. As of March 31, 2008, we owned 1,137,166 shares of Plug Power common stock. Plug Power common stock is traded on The Nasdaq Global Market. The market price of our Plug Power common stock may fluctuate as a result of market conditions and other factors over which we have no control. Fluctuations in the market price of Plug Power's common stock may result in a reduction of resources available to fund operations, which could result in our requiring additional funding sooner than anticipated.

**If current airline and certain international regulations do not change, passengers will be unable to carry methanol in the passenger compartments of airplanes, which would adversely affect our sales and results of operations.**

Current airline and certain international laws, regulations, and treaties limit the amount and concentration of methanol that any passenger can carry onboard passenger planes. We believe that these regulations must change for mass commercialization of Mobion technology products to be possible. There are several major markets, most notably within the European Union, that have not adopted the global regulations adopted by the International Civil Aviation Organization. If these



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regulations are not implemented, it would materially and adversely affect our ability to achieve mass commercialization of Mobion technology products and have a material adverse effect on our business plans, prospects, results of operations, and financial condition.

### **Our portable power source products may not be accepted by the market.**

Any portable power source products that we develop may not achieve market acceptance. The development of a successful market for our proposed portable power source products and our ability to sell those products at favorable prices may be adversely affected by a number of factors, many of which are beyond our control, including the following:

our failure to produce portable power source products that compete favorably against other products on the basis of price, quality, performance, and life;

competition from conventional lithium-ion or other rechargeable battery systems;

the ability of our technologies and product solutions to address the needs of the electronic device markets, the requirements of OEMs, and the preferences of end users;

our ability to provide OEMs with portable power source products that provide advantages in terms of size, weight, peak power, power duration, reliability, durability, performance, and value-added features compared to alternative solutions; and

our failure to develop and maintain successful relationships with OEMs, manufacturers, distributors, and others as well as strategic partners.

Target markets for our proposed portable power source products, such as those for mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, personal digital assistants, or PDAs, and global positioning systems, or GPS devices, are volatile, cyclical, and rapidly changing and could continue to utilize existing technology or adopt other new competing technologies. The market for certain of these products depends in part upon the development and deployment of wireless and other technologies, which may or may not address the needs of users of these new products.

Many manufacturers of portable electronic devices have well-established relationships with competitive suppliers. Penetrating these markets will require us to offer better performance alternatives to existing solutions at competitive costs. The failure of any of our target markets to continue to expand, or our failure to penetrate these markets to a significant extent, will impede our sales growth. We cannot predict the growth rate of these markets or the market share we will achieve in these markets in the future.

If our proposed portable power source products fail to gain market acceptance, it could materially and adversely affect our business and financial condition.

### **Market acceptance of our customers products that utilize our portable power source products may decline or may not develop and, as a result, our sales will be harmed.**

We currently do not anticipate selling our portable power source products directly to end users. Instead, we plan to produce portable power source products that our OEM customers incorporate into their products. As a result, the success of our proposed portable power source products will depend upon the widespread market acceptance of the products of our OEM customers. We will not control or influence the manufacture, promotion, distribution, or pricing

of the products that incorporate our portable power source products. Instead, we will depend on our OEM customers to manufacture and distribute products incorporating our portable power source products and to generate consumer demand through their marketing and promotional activities.



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Even if our technologies and products successfully meet our customers' price and performance goals, our sales would be harmed if our OEM customers do not achieve commercial success in selling their products to consumers that incorporate our portable power source products.

Any lack of adoption in the use of our portable power source products by OEM customers in the electronic device markets, the reduced demand for our OEM customers' products, or a slowdown in their markets would adversely affect our sales.

### **If we fail to build and maintain relationships with our customers and do not satisfy our customers, we may lose future sales and our revenue may stagnate or decline.**

Because our success depends on the widespread market acceptance of our customers' products, we must develop and maintain our relationships with leading global OEMs of electronic devices, such as mobile phones (including smart phones) and mobile phone accessories, digital cameras, portable media players, PDAs, and GPS devices. In addition, we must identify areas of significant growth potential in other markets, establish relationships with OEMs in those markets, and assist them in developing products that use our portable power source products and technologies. Our failure to identify potential growth opportunities, particularly in new markets, or establish and maintain relationships with OEMs in those markets, would prevent our business from growing in those markets.

Our ability to meet the expectations of our customers will require us to provide portable power source products for customers on a timely and cost-effective basis and to maintain customer satisfaction with our product solutions. We must match our design and production capacity with customer demand, maintain satisfactory delivery schedules, and meet specific performance goals. If we are unable to achieve these goals for any reason, our customers could reduce their purchases from us and our sales would decline or fail to develop.

Our customer relationships also can be affected by factors affecting our customers that are unrelated to our performance. These factors can include a myriad of situations, including business reversals of customers, determinations by customers to change their product mix or abandon business segments, or mergers, consolidations, or acquisitions involving our customers.

### **We have no experience manufacturing portable power source products on a commercial scale.**

To date, we have focused primarily on research, development, and pilot production, and we have no experience manufacturing any portable power source products on a commercial scale. Our pilot production efforts to date have been limited in scale. It is our intent to manufacture our portable power source products through OEM customers and third-party manufacturers. Failure to secure manufacturing capabilities could materially and adversely affect our business and financial condition.

### **We will rely on others for our production, and any interruptions of these arrangements could disrupt our ability to fill our customers' orders.**

We plan to rely on others for all of our production requirements for our portable power source products. The majority of this manufacturing is anticipated to be conducted in Asia by manufacturing subcontractors that also perform services for numerous other companies. We do not expect to have a guaranteed level of production capacity with any of our manufacturing subcontractors. Qualifying new manufacturing subcontractors is time consuming and might result in unforeseen manufacturing and operating problems. The loss of any relationships with our manufacturing subcontractors or assemblers or their inability to conduct their manufacturing and assembly services for us as anticipated in terms of cost, quality, and timeliness could adversely affect our ability to fill customer orders in accordance with required delivery, quality, and performance requirements. If this were to occur, the resulting decline

in revenue would harm our business.

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**We will depend on third parties to maintain satisfactory manufacturing yields and delivery schedules, and their inability to do so could increase our costs, disrupt our supply chain, and result in our inability to deliver our portable power source products, which would adversely affect our results of operations.**

We will depend on our manufacturing subcontractors to maintain high levels of productivity and satisfactory delivery schedules for our portable power source products from manufacturing and assembly facilities likely located primarily in Asia. We plan to provide our manufacturing subcontractors with rolling forecasts of our production requirements. We do not, however, anticipate having long-term agreements with any of our manufacturing subcontractors that guarantee production capacity, prices, lead times, or delivery schedules. Our manufacturing subcontractors will serve other customers, many of which will have greater production requirements than we do. As a result, our manufacturing subcontractors could determine to prioritize production capacity for other customers or reduce or eliminate deliveries to us on short notice. We may experience lower than anticipated manufacturing yields and lengthening of delivery schedules. Lower than expected manufacturing yields could increase our costs or disrupt our supply chain. We may encounter lower manufacturing yields and longer delivery schedules while commencing volume production of any new products. Any of these problems could result in our inability to deliver our product solutions in a timely manner and adversely affect our operating results.

**We plan to rely on third-party suppliers for most of our manufacturing equipment.**

We plan to rely on third-party suppliers for most of the manufacturing equipment necessary to produce our portable power source products. The failure of suppliers to supply manufacturing equipment in a timely manner or on commercially reasonable terms could delay our commercialization plans and otherwise disrupt our production schedules or increase our manufacturing costs. Further, our orders with certain of our suppliers may represent a very small portion of their total orders. As a result, they may not give priority to our business, leading to potential delays in or cancellation of our orders. If any single-source supplier were to fail to supply our needs on a timely basis or cease providing us with key components, we would be required to substitute suppliers. We may have difficulty identifying a substitute supplier in a timely manner and on commercially reasonable terms. If this were to occur, our business would be harmed.

**Shortages of components and raw materials may delay or reduce our sales and increase our costs, thereby harming our results of operations.**

The inability to obtain sufficient quantities of components and other materials, including platinum and ruthenium, necessary for the production of our portable power source products could result in reduced or delayed sales or lost orders. Any delay in or loss of sales could adversely impact our operating results. Many of the materials used in the production of our portable power source products will be available only from a limited number of foreign suppliers, particularly component suppliers located in Asia. In most cases, neither we nor our manufacturing subcontractors will have long-term supply contracts with these suppliers. As a result, we will be subject to economic instability in these Asian countries as well as to increased costs, supply interruptions, and difficulties in obtaining materials. Our customers also may encounter difficulties or increased costs in obtaining the materials necessary to produce their products into which our product solutions are incorporated.

From time to time, materials and components necessary for our portable power source products or in other aspects of our customers' products may be subject to allocation because of shortages of these materials and components. Shortages in the future could cause delayed shipments, customer dissatisfaction, and lower revenue.

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**We will be subject to lengthy development periods and product acceptance cycles, which can result in development and engineering costs without any future revenue.**

We plan to provide portable power source solutions that are incorporated by OEMs into the products they sell. OEMs will make the determination during their product development programs whether to incorporate our portable power source solutions or pursue other alternatives. This process may require us to make significant investments of time and resources in the design of portable customer-specific power source solutions well before our customers introduce their products incorporating our product solutions and before we can be sure that we will generate any significant sales to our customers or even recover our investment. During a customer's entire product development process, we will face the risk that our portable power source products will fail to meet our customer's technical, performance, or cost requirements or that our products will be replaced by competing products or alternative technological solutions. Even if we complete our design process in a manner satisfactory to our customer, the customer may decide to delay or terminate its product development efforts. The occurrence of any of these events could cause sales to not materialize, to be deferred, or to be cancelled, which would adversely affect our operating results.

**We will not have long-term purchase commitments from our customers, and their ability to cancel, reduce, or delay orders could reduce our revenue and increase our costs.**

Customers for our portable power source products will not provide us with firm, long-term volume purchase commitments, but instead will issue purchase orders to buy a specified number of units. As a result, customers may be able to cancel purchase orders or reduce or delay orders at any time. The cancellation, delay, or reduction of customer purchase orders could result in reduced revenue, excess inventory, and unabsorbed overhead. We currently have no presence in the electronic device markets. Our success in the electronic device markets will require us to establish the value added proposition of our products to OEMs that have traditionally used other portable power solutions. All of the markets we plan to serve are subject to severe competitive pressures, rapid technological change and product obsolescence, which may increase our inventory and overhead risks, resulting in increased costs.

**Variability of customer requirements resulting in cancellations, reductions, or delays may adversely affect our operating results.**

We will be required to provide rapid product turnaround and respond to short lead times. A variety of conditions, both specific to individual customers and generally affecting the demand for OEMs' products, may cause customers to cancel, reduce, or delay orders. Cancellations, reductions, or delays by a significant customer or by a group of customers could adversely affect our operating results. Customers may require rapid increases in production, which could strain our resources and reduce our margins.

**If we are unable to adequately protect our intellectual property, our competitors and other third parties could produce products based on our intellectual property, which would substantially impair our ability to compete.**

Our success and ability to compete depends in part upon our ability to maintain the proprietary nature of our technologies. We rely on a combination of patent, trade secret, copyright, and trademark law and license agreements, as well as nondisclosure agreements, to protect our intellectual property. These legal means, however, afford only limited protection and may not be adequate to protect our intellectual property rights. We cannot be certain that we were the first creator of inventions covered by pending patent applications or the first to file patent applications on these inventions. In addition, we cannot be sure that any of our pending patent applications will issue. The United States Patent and Trademark Office, or other foreign patent and trademark offices

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may deny or significantly narrow claims made under our patent applications and, even if issued, these patents may be successfully challenged, designed around, or may otherwise not provide us with any commercial protection.

We may in the future need to assert claims of infringement against third parties to protect our intellectual property. Regardless of the final outcome, any litigation to enforce our intellectual property rights in patents, copyrights, or trademarks could be highly unpredictable and result in substantial costs and diversion of resources, which could have a material and adverse effect on our business and financial condition. In the event of an adverse judgment, a court could hold that some or all of our asserted intellectual property rights are not infringed, or are invalid or unenforceable, and could award attorneys' fees to the other party.

**We may become subject to claims of infringement or misappropriation of the intellectual property rights of others, which could prohibit us from selling our products, require us to obtain licenses from third parties or to develop non-infringing alternatives, and subject us to substantial monetary damages and injunctive relief.**

We may receive notices from third parties that the manufacture, use, or sale of any products we develop infringes upon one or more claims of their patents. Moreover, because patent applications can take many years to issue, there may be currently pending applications, unknown to us, which may later result in issued patents that materially and adversely affect our business. Third parties could also assert infringement or misappropriation claims against us with respect to our future product offerings, if any. Whether or not such claims are valid, we cannot be certain that we have not infringed the intellectual property rights of such third parties. Any infringement or misappropriation claim could result in significant costs, substantial damages, and our inability to manufacture, market, or sell any of our product offerings that are found to infringe. Even if we were to prevail in any such action, the litigation could result in substantial cost and diversion of resources that could materially and adversely affect our business. If a court determined, or if we independently discovered, that our product offerings violated third-party proprietary rights, there can be no assurance that we would be able to re-engineer our product offerings to avoid those rights or obtain a license under those rights on commercially reasonable terms, if at all. As a result, we could be prohibited from selling products that are found to infringe upon the rights of others. Even if obtaining a license were feasible, it may be costly and time-consuming. A court could also enter orders that temporarily, preliminarily, or permanently enjoin us from making, using, selling, offering to sell, or importing our portable power source products, or could enter orders mandating that we undertake certain remedial activities. Further, a court could order us to pay compensatory damages for such infringement, plus prejudgment interest, and could in addition treble the compensatory damages and award attorneys' fees. These damages could materially and adversely affect our business and financial condition.

**Confidentiality agreements with employees and others may not adequately prevent disclosure of our trade secrets and other proprietary information, which could limit our ability to compete.**

We rely on trade secrets to protect our proprietary technology and processes. Trade secrets are difficult to protect. We enter into confidentiality and intellectual property assignment agreements with our employees, consultants, and other advisors. These agreements generally require that the other party keep confidential and not disclose to third parties confidential information developed by the party or made known to the party by us during the course of the party's relationship with us. However, these agreements may not be honored and enforcing a claim that a party illegally obtained and is using our trade secrets is difficult, expensive and time-consuming, and the outcome is unpredictable. The failure to obtain and maintain trade secret protection could adversely affect our competitive position.

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**Our efforts to develop new technologies may not result in commercial success, which could cause a decline in our revenue and could harm our business.**

Our research and development efforts with respect to our technologies may not result in customer or market acceptance. Some or all of those technologies may not successfully make the transition from the research and development lab to cost-effective production as a result of technology problems, competitive cost issues, yield problems, and other factors. Even when we successfully complete a research and development effort with respect to a particular technology, our customers may decide not to introduce or may terminate products utilizing the technology for a variety of reasons, including the following:

- difficulties with other suppliers of components for the products;
- superior technologies developed by our competitors and unfavorable comparisons of our solutions with these technologies;
- price considerations; and
- lack of anticipated or actual market demand for the products.

The nature of our business will require us to make continuing investments for new technologies. Significant expenses relating to one or more new technologies that ultimately prove to be unsuccessful for any reason could have a material adverse effect on us. In addition, any investments or acquisitions made to enhance our technologies may prove to be unsuccessful. If our efforts are unsuccessful, our business could be harmed.

**We may not be able to enhance our product solutions and develop new product solutions in a timely manner.**

Our future operating results will depend to a significant extent on our ability to provide new portable power source products that compare favorably with alternative solutions on the basis of time to introduction, cost, performance, and end-user preferences. Our success in attracting customers and developing business will depend on various factors, including the following:

- innovative development of new portable power source products for customer products;
- utilization of advances in technology;
- maintenance of quality standards;
- efficient and cost-effective solutions; and
- timely completion of the design and introduction of new portable power source products.

Our inability to commercialize our proposed portable power source solutions and develop new product solutions on a timely basis could harm our operating results and impede our growth.

**If we do not keep pace with technological innovations, our products may not be competitive and our revenue and operating results may suffer.**

Technological advances, the introduction of new products, and new design techniques could adversely affect our business prospects unless we are able to adapt to the changing conditions. Technological advances could render our

proposed portable power source products obsolete, and we may not be able to respond effectively to the technological requirements of evolving markets. As a result, we will be required to expend substantial funds for and commit significant resources to

continue research and development activities on portable power source products;

hire additional engineering and other technical personnel; and

purchase advanced design tools and test equipment.

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Our business could be harmed if we are unable to develop and utilize new technologies that address the needs of our customers, or our competitors do so more effectively than we do.

**New technology solutions that achieve significant market share could harm our business.**

New portable power source solutions could be developed. Existing electronic devices also could be modified to allow for a different power source solution. Our business could be harmed if our products become noncompetitive as a result of a technological breakthrough that allows a new power source solution to displace our solution and achieve significant market acceptance.

**Our inability to respond to changing technologies will harm our business.**

The electronics industry is subject to constant technological change. Our future success will depend on our ability to respond appropriately to changing technologies and changes in product function and quality. If we rely on products and technologies that are not attractive to consumers, we may not be successful in capturing or retaining any significant market share. In addition, any new technologies utilized in our portable power source products may not perform as expected or as desired, in which event our adoption of such products or technologies may harm our business.

**International sales and manufacturing risks could adversely affect our operating results.**

We anticipate that the manufacturing and assembly operations for our portable power source products will be conducted primarily in Asia by manufacturing subcontractors. We also believe that many of our OEM customers will be located and much of our sales and distribution operations will be conducted in Asia. These international operations will expose us to various economic, political, and other risks that could adversely affect our operations and operating results, including the following:

- difficulties and costs of staffing and managing a multi-national organization;
- unexpected changes in regulatory requirements;
- differing labor regulations;
- potentially adverse tax consequences;
- tariffs and duties and other trade barrier restrictions;
- possible employee turnover or labor unrest;
- greater difficulty in collecting accounts receivable;
- the burdens and costs of compliance with a variety of foreign laws;
- potentially reduced protection for intellectual property rights; and
- political or economic instability in certain parts of the world.

The risks associated with international operations could negatively affect our operating results.



**Our business may suffer if international trade is hindered, disrupted, or economically disadvantaged.**

Political and economic conditions abroad may adversely affect the foreign production and sale of our portable power source products. Protectionist trade legislation in either the United States or foreign countries, such as a change in the current tariff structures, export or import compliance laws, or other trade policies, could adversely affect our ability to sell our portable power source products in foreign markets and to obtain materials or equipment from foreign suppliers.

Changes in policies by the U.S. or foreign governments resulting in, among other things, higher taxation, currency conversion limitations, restrictions on the transfer of funds, or the expropriation of private enterprises also could have a material adverse effect on us. Any actions by

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countries in which we conduct business to reverse policies that encourage foreign investment or foreign trade also could adversely affect our operating results. In addition, U.S. trade policies, such as most favored nation status and trade preferences for certain Asian nations, could affect the attractiveness of our products to our U.S. customers and adversely impact our operating results.

**Our operating results could be adversely affected by fluctuations in the value of the U.S. dollar against foreign currencies.**

We plan to transact our portable power source business predominantly in U.S. dollars and bill and collect our sales in U.S. dollars. A weakening of the dollar could cause our overseas vendors to require renegotiation of either the prices or currency we pay for their goods and services. In the future, customers may negotiate pricing and make payments in non-U.S. currencies.

If our overseas vendors or customers require us to transact business in non-U.S. currencies, fluctuations in foreign currency exchange rates could affect our cost of goods, operating expenses, and operating margins and could result in exchange losses. In addition, currency devaluation can result in a loss to us if we hold deposits of that currency. Hedging foreign currencies can be difficult, especially if the currency is not freely traded. We cannot predict the impact of future exchange rate fluctuations on our operating results.

**We expect that a majority of our manufacturing subcontractors will be located in Asia, increasing the risk that a natural disaster, labor strike, war, or political unrest in those countries would disrupt our operations.**

We expect that a majority of our manufacturing subcontractors will be located in Asia. Events out of our control, such as earthquakes, fires, floods, or other natural disasters, or political unrest, war, labor strikes, or work stoppages in Asia could disrupt their operations, which would impact our business. In addition, there is political tension between Taiwan and China that could lead to hostilities. If any of these events occur, we may not be able to obtain alternative manufacturing capacity. Failure to secure alternative manufacturing capacity could cause a delay in the shipment of our products, which would cause our revenue to fluctuate or decline.

**Continuing uncertainty of the U.S. economy may have serious implications for the growth and stability of our business and may negatively affect our stock price.**

The revenue growth and profitability of our business will depend significantly on the overall demand for electronic devices. Softening demand in these markets caused by ongoing economic uncertainty may result in decreased revenue or earnings levels or growth rates. The U.S. economy has been historically cyclical, and market conditions continue to be challenging, which has resulted in individuals and companies delaying or reducing expenditures. Further delays or reductions in spending could have a material adverse effect on demand for our products, and consequently on our business, financial condition, results of operations, prospects, and stock price.

**The electronics industry is cyclical and may result in fluctuations in our operating results.**

The electronics industry has experienced significant economic downturns at various times. These downturns are characterized by diminished product demand, accelerated erosion of average selling prices, and production overcapacity. In addition, the electronics industry is cyclical in nature. We will seek to reduce our exposure to industry downturns and cyclicity by providing design and production services for leading companies in rapidly expanding industry segments. We may, however, experience substantial period-to-period fluctuations in future operating results because of general industry conditions or events occurring in the general economy.



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**Our strategic alliances may not achieve their objectives, and their failure to do so could impede our growth.**

Our prospects depends to a significant extent on our strategic alliances with Samsung and Duracell. In addition, we plan to explore additional strategic alliances designed to enhance or complement our technology or to work in conjunction with our technology; to provide necessary know-how, components, or supplies; and to develop, introduce, and distribute products utilizing our technology. Any strategic alliances may not achieve their intended objectives, may be cancelled by either party, and parties to our strategic alliances may not perform as contemplated. The failure of our current alliances or our inability to form additional alliances may impede our ability to introduce new products and enter new markets.

**Product liability claims against us could result in adverse publicity and potentially significant monetary damages.**

As a seller of consumer products using a flammable material such as methanol, we will face an inherent risk of exposure to product liability claims in the event that injuries result from product usage by customers. It is possible that our products could result in injury, whether by product malfunctions, defects, improper installation, or other causes. If such injuries or claims of injuries were to occur, we could incur monetary damages and our business could be adversely affected by any resulting negative publicity. The successful assertion of product liability claims against us could result in potentially significant monetary damages and, if our insurance protection is inadequate to cover these claims, could require us to make significant payments from our own resources.

**We expect to face intense competition that could result in failing to gain market share and suffering reduced revenue from our portable power source products.**

We plan to serve intensely competitive markets that are characterized by price erosion, rapid technological change, and competition from major domestic and international companies. This intense competition could result in pricing pressures, lower sales, reduced margins, and lower market share. Most of our competitors have greater market recognition, larger customer bases, and substantially greater financial, technical, marketing, distribution, and other resources than we possess and that afford them competitive advantages. As a result, they may be able to devote greater resources to the promotion and sale of products, to negotiate lower prices for raw materials and components, to deliver competitive products at lower prices, and to introduce new product solutions and respond to customer requirements more quickly than we can. Our competitive position could suffer if one or more of our customers determine not to utilize our portable power source products and instead decide to contract with our competitors or to use alternative technologies.

Our ability to compete successfully will depend on a number of factors, both within and outside our control. These factors include the following:

our success in designing and introducing new portable power source products;

our ability to predict the evolving needs of our customers and to assist them in incorporating our technologies into their new products;

our ability to meet our customer s requirements for small size, low weight, peak power, long power duration, ease of use, reliability, durability, and small form factor;

the quality of our customer services;

the rate at which customers incorporate our products into their own products;

product or technology introductions by our competitors; and

foreign currency fluctuations, which may cause a foreign competitor's products to be priced significantly lower than our products.

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**We depend on key personnel who would be difficult to replace, and our business will likely be harmed if we lose their services or cannot hire additional qualified personnel.**

Our success will depend substantially on the efforts and abilities of our senior management and key personnel. The competition for qualified management and key personnel, especially engineers, is intense. Although we maintain non-competition and non-disclosure covenants with most of our key personnel, we do not have employment agreements with most of them. The loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel, especially engineers and technical support personnel, and capable sales and customer-support employees outside the United States, could delay the development and sale of our products, disrupt our business, and interfere with our ability to execute our business plan.

**Our operating results may experience significant fluctuations.**

In addition to the variability resulting from the short-term nature of our customers' commitments, other factors will contribute to significant periodic and seasonal quarterly fluctuations in our results of operations. These factors include the following:

- the cyclical nature of the markets we serve;
- the timing and size of orders;
- the volume of orders relative to our capacity;
- product introductions and market acceptance of new products or new generations of products;
- evolution in the life cycles of our customers' products;
- timing of expenses in anticipation of future orders;
- changes in product mix;
- availability of manufacturing and assembly services;
- changes in cost and availability of labor and components;
- timely delivery of product solutions to customers;
- pricing and availability of competitive products;
- introduction of new technologies into the markets we serve;
- pressures on reducing selling prices;
- our success in serving new markets; and
- changes in economic conditions.

Accordingly, you should not rely on period-to-period comparisons as an indicator of our future performance. Negative or unanticipated fluctuations in our operating results may result in a decline in the price of our stock.

### **Risks Related to this Offering**

**As a new investor, you will incur substantial dilution in net tangible book value as a result of this offering.**

The assumed public offering price will be substantially higher than the net tangible book value per share of our outstanding shares of common stock. If you purchase securities in this offering, your interest will be diluted by the amount by which the offering price per share exceeds our pro forma net tangible book value per share following the offering. Net tangible book value

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equals total tangible assets minus total liabilities. As of March 31, 2008, our net tangible book value per share was \$2.11. After giving effect to this offering and assuming an initial offering price of \$3.60, our pro forma net tangible book value per share would be \$2.80, or \$2.85 if the underwriters exercise their over-allotment option in full. The exercise of outstanding options and warrants and future equity issuances, including future public offerings or future private placements of equity securities and any additional shares issued in connection with acquisitions, could result in further dilution to investors.

**You may not be able to resell your shares at or above the price you pay for them in this offering.**

Our common stock is currently traded on The Nasdaq Global Market. The daily trading volume of our common stock is relatively low. During the year ended December 31, 2007, the daily volume for our common stock was as low as 3,844 and as high as 155,701 and averaged 19,994 shares per day as reported by Nasdaq. Because of this limited trading volume, stockholders may be unable to sell their shares. Moreover, sales or purchases of relatively small blocks of stock can have a significant impact on the price at which our stock is traded. The market price of our common stock also has fluctuated substantially in the past and is likely to continue to be highly volatile and subject to wide fluctuations in the future. For example, as of December 31, 2007, the 52-week high closing sales price of our common stock was \$14.40 per share, which compares to a 52-week low closing sales price of our common stock of \$5.68 per share. These fluctuations have occurred in the past and may occur in the future in response to various factors, many of which we cannot control, including the following:

actual or anticipated changes in our operating results;

variations in our quarterly results;

changes in expectations relating to our products, plans, and strategic position or those of our competitors or customers;

announcements of technological innovations or new products by our competitors, our customers, or us;

market conditions within our market;

price and volume fluctuations in the overall stock market from time to time;

significant volatility in the market price and trading volume of technology companies in general and alternative energy companies in particular;

changes in investor perceptions;

the level and quality of any research analyst coverage of our common stock;

changes in earnings estimates or investment recommendations by securities analysts or our failure to meet such estimates;

the financial guidance we may provide to the public, any changes in such guidance, or our failure to meet such guidance;

various market factors or perceived market factors, including rumors, whether or not correct, involving us, our customers, our subcontractors, or our competitors;



introductions of new products or new pricing policies by us or by our competitors;

acquisitions or strategic alliances by us or by our competitors;

litigation involving us, our industry, or both;

regulatory developments in the United States or abroad;

the gain or loss of significant customers;

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the gain or loss of significant orders;

recruitment or departure of key personnel;

developments with respect to intellectual property rights;

market conditions in our industry, the industries of our customers, and economy as a whole;

acquisitions or strategic alliances by us or our competitors; and

general global economic and political instability.

In addition, the market prices of securities of technology companies have experienced significant price and volume fluctuations that often have been unrelated or disproportionate to their operating performance. In the past, companies that have experienced volatility in the market price of their securities have been the subject of securities class action litigation. If we were the object of a securities class action litigation, it could result in substantial losses and divert management's attention and resources from other matters.

Nasdaq notified us on January 9, 2008 that our common stock could be delisted from The Nasdaq Global Market for failure to maintain a minimum bid price of \$1.00. The eight-to-one reverse stock split of common stock which was approved by our stockholders at a meeting held May 15, 2008, may not, by itself, result in our compliance with the minimum bid price requirement of The Nasdaq Global Market. Furthermore, the market may react negatively to the dilutive effects of this offering, causing a decline in the price of our common stock below the price required by the minimum bid price rule. As a result of the foregoing and other factors, you may not be able to resell your shares of common stock at or above the price you paid.

**Sales of large numbers of shares could adversely affect the price of our common stock.**

All of the 4,771,861 shares of our common stock outstanding as of March 31, 2008 are eligible for resale in the public markets. Of these shares, 120,729 shares held by affiliates are eligible for resale in the public markets subject to compliance with the volume and manner of sale requirements of Rule 144 under the Securities Act of 1933, as amended, and the balance of the shares are eligible for resale in the public markets either as unrestricted shares or pursuant to Rule 144. In general, under Rule 144 as currently in effect, any person (or persons whose shares are aggregated for purposes of Rule 144) who beneficially owns restricted securities with respect to which at least six months has elapsed since the later of the date the shares were acquired from us, or from an affiliate of ours, is entitled to sell within any three-month period a number of shares that does not exceed the greater of 1% of the then outstanding shares of our common stock and the average weekly trading volume in common stock during the four calendar weeks preceding such sale. Sales under Rule 144 also are subject to certain manner-of-sale provisions and notice requirements and to the availability of current public information about us. A person who is not an affiliate, who has not been an affiliate within three months prior to sale, and who beneficially owns restricted securities with respect to which at least six months has elapsed since the later of the date the shares were acquired from us, or from an affiliate of ours, is entitled to sell such shares under Rule 144 without regard to any of the volume limitations or other requirements described above. Sales of substantial amounts of common stock in the public market could adversely affect prevailing market prices.

**We do not expect to pay any dividends for the foreseeable future.**

We do not anticipate paying any dividends to our stockholders for the foreseeable future. Accordingly, you may have to sell some or all of your common stock in order to generate cash flow from your investment. You may not receive a gain on your investment when you sell our common stock and may lose some or all of the amount of your investment. Any determination to pay dividends in the future will be made at the discretion of our board of directors and will depend on our results of operations, financial conditions, contractual restrictions, restrictions imposed by applicable law, and other factors our board of directors deems relevant.

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**If our securities become ineligible for trading on Nasdaq, they might be subject to Rule 15g-9 of the Securities Exchange Act of 1934, which imposes additional sales practice requirements on broker-dealers that sell such securities to persons other than established customers and accredited investors.**

While our common stock is now listed on The Nasdaq Global Market, continued listing on Nasdaq will depend on our ability to meet certain eligibility requirements established from time to time by The Nasdaq Global Market. Loss of Nasdaq eligibility could result from material operating losses, or if the market price of our common stock falls below \$1.00 per share for a substantial period of time. For transactions covered by the rule, the broker-dealer must make a special suitability determination for the purchaser and receive the purchaser's written consent to the transaction prior to the sale. The rule may adversely affect the ability of broker-dealers to sell our securities, and consequently may limit the public market for, and the trading price of, our common stock.

**We have broad discretion over the use of the net proceeds from this offering and could spend the proceeds in ways with which you might not agree.**

We have broad discretion to allocate the net proceeds of this offering, and you will be relying on the judgment of our management regarding the application of those proceeds. We currently expect to use these proceeds to conduct research and development, and the commercialization of our portable power source products. The timing and amount of our actual expenditures, however, are subject to change and will be based on many factors, including the following:

the results of our research and development and product testing;

manufacturing, marketing, and other costs associated with commercialization of our products; and

the costs involved in preparing, filing, prosecuting, maintaining and enforcing patents or defending ourselves against competing technological and market developments.

**We may experience an ownership change in connection with this offering (or in the future), which would result in a limitation of the use of our net operating losses.**

As of March 31, 2008, we had approximately \$57 million of net operating loss, or NOL, carryforwards. Our ability to utilize these NOL carryforwards, including any future NOL carryforwards that may arise, may be limited by Section 382 of the Internal Revenue Code of 1986, as amended, if we undergo an ownership change as a result of the sale of units in this offering or as a result of subsequent changes in the ownership of our outstanding common stock. A corporation generally undergoes an ownership change when the ownership of its stock, by value, changes by more than 50 percentage points over any three-year testing period. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change NOL carryforwards and certain recognized built-in losses.

**The warrants could adversely affect stock price and future financings.**

We are offering 7,000,000 shares of our common stock and warrants to purchase \_\_\_\_\_ shares of our common stock in \_\_\_\_\_ units. We are also granting the underwriters a 30-day option to purchase up to an additional 1,050,000 units (consisting of 1,050,000 shares and \_\_\_\_\_ warrants) to cover over-allotments. The existence of such warrants may adversely affect the market price of our common stock and terms on which we can obtain additional financing, and the holders of such warrants can be expected to exercise them at a time when we, in all likelihood, would be able to obtain additional capital by offering shares of our common stock on terms more favorable to us than those provided by the exercise of such warrants.



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**SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS**

This prospectus contains forward-looking statements that are forward-looking in nature. Examples of forward-looking statements include statements regarding our belief that the fuel cell industry will continue to develop, our future financial results, operating results, business strategies, projected costs, products under development, competitive positions, and our plans and objectives for future operations. Words such as may, will, should, would, expects, anticipates, intends, believes, estimates, predicts, potential, continue, or the negative of these terms or other comparable terminology, as well as statements in future tense, identify forward-looking statements. Any expectations based on these forward-looking statements are subject to risks and uncertainties and other important factors, including the Risk Factors discussed herein. These and many other factors could affect our future operating results and financial condition and could cause actual results to differ materially from expectations based on forward-looking statements made in this document or elsewhere by us or on our behalf.

Forward-looking statements should not be read as a guarantee of future performance or results, and will not necessarily be accurate indications of the times at, or by which, that performance or those results will be achieved. Forward-looking statements are based on information available at the time they are made or our good faith belief as of that time with respect to future events, and are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in or suggested by the forward-looking statements. Important factors that could cause these differences include the following:

- our history of recurring net losses and the risk of continued net losses;
- our independent auditors raising substantial concern about our ability to continue as a going concern;
- the potential delisting of our common stock from The Nasdaq Global Market;
- sales revenue growth of our test and measurement instrumentation business may not be achieved;
- the dependence of our test and measurement instrumentation business on a small number of customers and potential loss of government funding;
- risks related to developing Mobion direct methanol fuel cells and whether we will ever successfully develop reliable and commercially viable Mobion fuel cell solutions;
- our need to raise additional financing;
- risks relating to the market price of Plug Power common stock;
- the risk that certain European Union regulations will not be changed to permit methanol to be carried onto airplanes;
- our portable power source products or our customers' products that utilize our portable power source products may not be accepted by the market;
- our inability to build and maintain relationships with our customers;
- our limited experience in manufacturing fuel cell systems on a commercial basis;

our dependence on others for our production requirements for our portable power source products;

our dependence on our manufacturing subcontractors to provide high levels of productivity and satisfactory delivery schedules for our portable power source products;

our dependence on third-party suppliers for most of the manufacturing equipment necessary to produce our portable power source products;

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our inability to obtain sufficient quantities of components and other materials, including platinum and ruthenium, necessary for the production of our portable power source products;

our dependence on OEMs integrating Mobion fuel cell systems into their devices;

our lack of long-term purchase commitments from our customers and the ability of our customers to cancel, reduce, or delay orders for our products;

risks related to protection and infringement of intellectual property;

our new technologies may not result in customer or market acceptance;

our ability to commercialize our proposed portable power source solutions and develop new product solutions on a timely basis;

our ability to develop and utilize new technologies that address the needs of our customers;

intense competition in the direct methanol fuel cell and instrumentation businesses;

change in policies by U.S. or foreign governments that hinder, disrupt, or economically disadvantage international trade;

the impact of future exchange rate fluctuations;

uncertainty of the U.S. economy;

the historical volatility of our stock price;

the cyclical nature of the electronics industry;

failure of our strategic alliances to achieve their objectives or perform as contemplated and the risk of cancellation or early termination of such alliance by either party;

product liability or defects;

risks related to the flammable nature of methanol as a fuel source;

the loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel;

significant periodic and seasonal quarterly fluctuations in our results of operations; and

other factors discussed under the headings Risk Factors, Management's Discussion and Analysis of Financial Condition and Results of Operations, and Business.

Forward-looking statements speak only as of the date they are made. You should not put undue reliance on any forward-looking statements. We assume no obligation to update forward-looking statements to reflect actual results, changes in assumptions, or changes in other factors affecting forward-looking information, except to the extent



required by applicable securities laws. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward-looking statements.

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We estimate that our net proceeds from the sale of 7,000,000 units in this offering will be approximately \$22.9 million, based on an assumed offering price of \$3.60 per unit, based on the last reported sale price of our common stock on The Nasdaq Global Market on May 21, 2008, and after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

We currently intend to use the net proceeds from this offering as follows:

Commercialization of our portable power source products (1)	\$	19,325,000
Capital equipment (2)		2,285,000
General corporate purposes, including working capital		1,334,000
<b>Total</b>	<b>\$</b>	<b>22,944,000</b>

- (1) Expected to consist of activities to commercialize our portable power source products for portable handheld electronic devices (including further enhancements to our Mobion Chip) and activities to achieve manufacturing readiness (including design for manufacturability, design for assembly, design for testability, and design for serviceability).
- (2) Expected to consist of expenditures for equipment and tooling to support engineering design and commercialization of our Mobion portable power source products.

A \$1.00 increase (decrease) in the assumed public offering price of \$3.60 per unit would increase (decrease) the net proceeds to us from this offering by approximately \$6.4 million, assuming the number of units offered by us, as set forth on the cover page of this prospectus, remains the same and after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We may also increase or decrease the number of units we are offering. An increase (decrease) of 1,000,000 units in the number of units offered by us would increase (decrease) the net proceeds to us from this offering by approximately \$3.6 million.

We believe the net proceeds of this offering will provide sufficient funds to commercialize our portable power source products. It is possible, however, that changing circumstances could require us to raise capital above the net proceeds of this offering to fund the commercialization of our portable power source business. We may raise this additional capital through one or more financings or by selling our test and measurement instrumentation business should we determine to do so.

The amounts and timing of our actual expenditures will depend upon numerous factors, including the amount of proceeds actually raised in this offering, cash flows from operations, and the growth of our business. We will, from time to time, evaluate these and other factors to determine if the allocation of our resources, including the proceeds of this offering, is being optimized and we must therefore retain broad discretion to allocate the net proceeds from this offering.

Pending use of the net proceeds as described above, we intend to invest the net proceeds of this offering in U.S. government and short-term investment grade securities.



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**PRICE RANGE OF OUR COMMON STOCK**

Our common stock trades on The Nasdaq Global Market under the symbol MKTY. Following the reverse stock split that became effective May 16, 2008, our common stock will trade under the symbol MKTYD until June 13, 2008, when it will revert to MKTY. The following table sets forth the high and low sale prices of our common stock as reported by The Nasdaq Global Market for the periods indicated.

	<b>High</b>	<b>Low</b>
<b>2006</b>		
First Quarter	\$ 31.2	