

MECHANICAL TECHNOLOGY INC  
Form 10-K  
March 16, 2007

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2006

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 0-6890

MECHANICAL TECHNOLOGY INCORPORATED

(Exact name of registrant as specified in its charter)

New York

14-1462255

(State or other jurisdiction of incorporation or organization)

(I.R.S. Employer Identification No.)

431 New Karner Road, Albany, New York

12205

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code: (518) 533-2200

Securities Registered Pursuant to Section 12(b) of the Act:	
Title of each class	Name of each exchange on which registered
Common Stock	The NASDAQ Stock Market LLC
(\$0.01 par value)	

Securities Registered Pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes /X/ No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (Section 229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer or a non-accelerated filer. See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer   Accelerated filer /X/   Non-accelerated filer

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12B-2 of the Act). Yes No /X/

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2006 (based on the last sale price of \$2.47 per share for such stock reported by NASDAQ for that date) was approximately \$76,654,190.

As of March 9, 2007, the Registrant had 38,043,942 shares of common stock outstanding.

Documents incorporated by reference: Portions of the registrant's Proxy Statement for its 2007 Annual Meeting of Shareholders are incorporated by reference into Part III of this Form 10-K.

## PART I

### Item 1: Business

#### Overview

Mechanical Technology Incorporated, ("MTI" or the "Company"), a New York corporation, was incorporated in 1961. MTI operates in two segments, the New Energy segment which is conducted through MTI MicroFuel Cells Inc. ("MTI

Micro"), a majority-owned subsidiary, and the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. ("MTI Instruments"), a wholly owned subsidiary.

At its MTI Micro subsidiary, the Company is principally focused on the development and commercialization of advanced cord-free rechargeable power pack technology for portable electronics. MTI Micro has developed a patented, proprietary direct methanol fuel cell ("DMFC") technology called Mobion<sup>®</sup>, which generates electrical power using up to 100% methanol as fuel. MTI Micro's Mobion<sup>®</sup> technology is intended to replace current lithium-ion and similar rechargeable battery systems currently used by original equipment manufacturers ("OEMs") in many hand held electronic devices such as a personal digital assistant ("PDA"), Smart Phones and other accessories. The Company formed MTI Micro as a subsidiary on March 26, 2001 and currently owns approximately 94% of the outstanding common stock of MTI Micro. The remaining 6% is owned by strategic partners, other investors, and MTI Micro employees. In addition, employees of MTI Micro hold options to purchase shares of MTI Micro common stock representing approximately 0.12% of MTI Micro's outstanding common stock on a fully diluted basis as of December 31, 2006. Such options are vested or will vest within the next three years.

At its MTI Instruments subsidiary, the Company designs, manufactures, and sells high-performance test and measurement instruments and systems. MTI Instruments was incorporated as a subsidiary on March 8, 2000 and has three product groups: general dimensional gauging, semiconductor and aviation. 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 of semi-insulating and semi-conducting wafers for the semiconductor market; and engine balancing and vibration analysis systems for both military and commercial aircraft.

MTI also co-founded and retains a minority interest in Plug Power Inc. ("Plug Power") (Nasdaq: PLUG), a developer of clean, reliable, on-site energy products.

#### Recent Developments

In late February 2007, the Company learned that the Land Warrior program - a program intended to integrate commercial, off-the-shelf technologies into a complete soldier system for the dismounted infantryman - would be terminated. This termination triggered the Company's reassessment of its high power program's market potential.

The Land Warrior Program had significant market potential for the Company since it required the development of a new power source that could handle its power demands. Land Warrior was also a catalyst for funding the development of alternative advanced power solutions at the various government and military agencies. We were pursuing advanced power solutions for radios, satellite communications and general purpose power requirements and ultimately to the Land Warrior vision of a fuel cell for every soldier.

The Company's market research and product entry roadmap identified the high power DMFC platform as a natural solution for not only Land Warrior but also communications and general purpose power applications and expected to eventually sell 30W power solutions into the military market for both Land Warrior and other on-body power programs. The Company was progressing towards the development and testing of high power prototypes to achieve a technology readiness level acceptable for trials.

As a result of the termination of the Land Warrior Program and the Company's associated reassessment of its high power program, it was determined that both sales and future funding opportunities from the military and other government agencies would be significantly reduced. Accordingly, the Company determined that the continuation of the 30W high power program would no longer be prudent and suspended its development. Additionally, the Company will not proceed with the delivery of 30W prototype systems to two of its customers and has separated employees supporting this effort.

With market conditions in the high power military market changing quickly, the Company has swiftly responded to these changes by sharpening its focus on the development and commercialization of low power products for the consumer market and its adaptations for military applications.

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The Company believes that it will recognize a number of significant benefits from this change including:

-Focus on the consumer market:

-The largest market potential for the Company's low power platform is in the consumer electronics market where millions of power sources are shipped each year. In this market, the Company remains a leader due to its strong intellectual property position, prototype advancements, and customer relationships. We believe that a continued strong focus in this area may help to accelerate our time to market.

-We will continue to explore adapting our low power program into the military market for applications which include remote sensors and chargers; thereby, leveraging one platform. The majority of power demand for both the average infantry soldier and a number of sensor applications is at the single watt level which will allow us to address these markets through the adaptation of our consumer market efforts.

-The Company's market research and product entry roadmap continues to validate the low power DMFC platform as an elegant and simple solution for the ever increasing power demands of today's hand-held electronics including smart phones, PDAs, and MP3 Players.

-The market for power sources for use in consumer electronics is large and continues to growing at fast pace.

Cost savings:

The Company's original plan included ramping-up development, testing and design for manufacturability for both the low and high power programs. These two programs required significant investment in human capital, tooling, testing, and outsourced component development and advancements. To achieve its original 2007 plan, the Company expected to use cash in operations and capital expenditures totaling approximately \$16,900 thousand. Based on the suspension of the high power program, the Company now expects to reduce expenses by approximately \$4,300 thousand for the remainder of 2007 or \$5,800 thousand on an annual basis. As a result, 2007 cash used in operations and capital expenditures will be reduced to approximately \$12,600 thousand for an average cash burn of \$1,050 thousand per month.

Liquidity:

The Company now estimates that its available cash and marketable securities would fund operations through September 2008 which will allow the Company to achieve manufacturing readiness in preparation for its goal of shipping products into the consumer market in 2009.

The discussion of the New Energy Segment relates to its operations during 2006 and should be read in conjunction with

*"Recent Developments", as outlined above.*

Trends in portable electronics are creating a growing need for longer-lasting portable power. Consumers want increased intelligence and functionality for their portable devices. They want more memory, color screens, and convergence of several devices into a multi-purpose one (e.g. cell phones that are also digital cameras and MP3 players). More and more devices are being connected to some kind of network and increasingly used by consumers who want them on and leave them on. All these trends require more energy than current technologies - like battery technologies - may be able to provide.

MTI Micro expects that its proprietary technology should provide the improved power necessary to operate present and future generations of portable electronics and their accessories. MTI Micro's Mobion® technology should last longer because of its high energy density, and it may eliminate the need for a lengthy recharge because it can be instantly refueled (recharged) by inserting a new fuel refill of methanol or refueling with a canister.

#### Mobion® Technology:

MTI Micro's Mobion® direct methanol fuel cells are electrochemical devices that convert high energy density fuel (methanol) directly into electricity. The heart of a Mobion® fuel cell is a membrane between two catalyst layers. The micro fuel cell produces electrical current when the fuel is introduced to the anode catalyst layer. At the anode catalyst, the fuel reacts to produce protons, electrons, and carbon dioxide. The membrane allows protons to pass through to the cathode catalyst layer. Electrons are forced to take an alternative path, and flow through current collectors providing power. At the cathode catalyst layer, the protons and electrons recombine and react with oxygen to form water.

Direct methanol fuel cells operate relatively silently and at low temperatures. MTI Micro's Mobion® technology is being designed to reduce parts count and the need for complex components. The technology platform can be customized to provide portable power for a number of applications depending on the power level, required run time and size requirements.

MTI Micro's Mobion® technology uses methanol as fuel. Methanol - a simple alcohol commonly used in windshield wiper fluid - is biodegradable and because it is a liquid, it is easily stored and transported. In addition, methanol is inexpensive, readily available and in its natural state has high energy density (about 4800 Watt Hours (Wh) per Liter). Methanol is increasingly seen as a fuel of choice in the industry for micro fuel cells and it is being adopted by many in the industry because of its high energy density, packaging advantages, environmental and safety considerations, and low cost.

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#### Research and Development:

During 2006, MTI Micro was developing two DMFC technology platforms - low power and high power. Based on recent events, MTI Micro is now focusing on our low power development only. Our low power platform is a simplified DMFC technology platform intended to eliminate many of the pumps and valves found in traditional DMFC systems. Low power applications are optimal for portable electronic in the consumer market such as PDAs, digital cameras and camera accessories. There is demand for improved low power sources coming from both military and homeland security markets for applications such as unattended ground sensors and homeland security monitoring where the platforms may be adapted with a few changes. The high power platform also may serve applications such as video cameras, laptops and power accessories for consumer and industrial electronics applications. MTI Micro's technology platform also focuses on using components and subsystems that use standard mass manufacturing practices. This technology platform is designed to permit MTI Micro to address the needs of applications with various power, duration and size requirements. DMFC development efforts are also focused on reliability, manufacturability, miniaturization and cost considerations, as well as compliance with codes and standards for DMFC systems. MTI Micro shipped its initial low volume Mobion® fuel cell systems in late 2004. The Company and MTI Micro recognize that significant technical and engineering challenges remain before DMFCs can become commercially viable or available.

During 2006, 2005 and 2004, the Company spent approximately \$12,900, \$9,700 and \$13,000 thousand, respectively, on product development and research costs, including \$1,200, \$3,600 and \$4,000 thousand, respectively, on partially funded research and development.

#### Product Development and Manufacturing:

The product specifications required to successfully penetrate MTI Micro's targeted markets vary depending on the device being powered. Volume, weight, peak power, environmental conditions, power duration and reliability are all factors that pose limiting thresholds on Mobion® fuel cell product introduction and acceptance. Therefore, MTI Micro will target products that have specifications that intersect its technology roadmap at various stages of development, thereby permitting the introduction of products earlier, while building its supply chain, manufacturing capabilities and key OEMs relationships.

The Company believes that when commercialized, Mobion® could eventually have higher energy density and therefore provide multiple times the benefits of existing lithium-ion batteries. When sold into the mass-commercial markets, Mobion® fuel cells should be able to power a wireless electronic device for longer periods of time than Lithium Ion batteries without recharging/refueling, and be instantly refueled without the need for a power outlet or a lengthy recharge period.

MTI Micro has built a number of system prototypes that demonstrate the technology's capabilities, operation in any orientation, and operation at a range of voltages. MTI Micro also uses laboratory systems to demonstrate and test advanced concepts and technology. In 2006, in a 30 watt Mobion® laboratory test unit, MTI Micro achieved an energy density of over 1.3 Wh per cc of fuel, representing more than a 30% increase in fuel efficiency. Also, in 2006, MTI Micro demonstrated in the laboratory a Mobion® accessory charger prototype operating on 100% methanol that ran continuously for over 95 Wh on one fill of its integrated fuel tank and provided more energy density than the typical prismatic Lithium Ion battery.

MTI Micro currently anticipates using contract manufacturers to manufacture its Mobion® fuel cell products and has established contracts and relationships with key suppliers and contract manufacturers. MTI Micro also works with third-party suppliers to design, develop and manufacture subsystems and components of its Mobion® fuel cell products.

The commercialization of MTI Micro's Mobion® fuel cell products depends upon MTI Micro's ability to significantly reduce the costs of these systems and products, since they are currently substantially more expensive than systems and products based on existing technologies, such as rechargeable batteries. In addition to cost, MTI Micro continues to work on improving reliability, energy density, power density, life, and the overall performance of its Mobion® systems as well as reducing its size - critical components for successful penetration into the marketplace. We cannot assure that MTI Micro will be able to sufficiently reduce the cost and size of these systems and products without reducing their performance, reliability and longevity.

Although it is difficult to predict the development timetable and challenges of our Mobion® technology - a disruptive technology that may be able to provide multiple times the benefits of existing technologies. At the end of 2006, the Company planned to ship units for field testing for high power applications during 2007.

#### Business Strategy and Commercialization

: The market for rechargeable batteries or power packs is large, well established and growing, experiencing sales of several hundred million units per year. As of the end of 2006, MTI Micro's business strategy was to develop robust, reliable, manufacturable, cost-effective Mobion® technology platforms suitable for the consumer, military and industrial markets. Potential military markets include extended life power sources for a number of applications including low and high power communication devices, sensors, soldier on-body power and other mission critical devices for the war on terror.

Potential industrial markets include low and high power portable communications devices, wireless scanners, hand-held inventory control devices and electronic healthcare products. The potential consumer markets span a broad range of mass-market portable electronic devices such as PDAs, Smartphones, global positioning systems and digital cameras. Initial applications in the consumer markets will be high value-added devices such as portable navigation systems, digital cameras, game players, camcorders and accessories for them. The Company then plans to penetrate into the even larger market for products such as cell phones and laptops.

As a result of discussions with its partners, government agencies, OEMs and others, MTI Micro developed a commercialization strategy that consists of two overlapping phases (military/industrial and consumer) for market introduction of its Mobion® fuel cells. This tiered approach was intended to enable MTI Micro to gradually penetrate each of its selected markets.

During 2006, MTI Micro met milestones related to technology and business development including: 1) increasing system efficiency by 30% to 1.3 Wh per cc of fuel; 2) demonstrating a product-intent military portable power system; 3) developing a prototype for the consumer market that exceeds the energy density of a lithium-ion battery, and 4) entering into an agreement with a lead OEM. Furthermore, the company is currently moving Mobion®30M units through its robustness qualification testing process with expected completion during the first quarter of 2007. The Company then plans to ship robust units as scheduled to qualified customers.

To move the Company forward in 2007, the Company has set the following milestones:

#### First Half of the Year

1. Complete Samsung shipment of low power prototypes; and

- Introduce next generation MTI Instruments precision products;

#### Second Half of the Year

- Sign an additional agreement with OEM for low power products;
- Achieve annual revenue growth at the MTI Instruments subsidiary of at least 15% over 2006;

#### Moving Forward

5) Develop partnerships and processes to start manufacturing readiness in 2008, and expect to begin shipping products in the consumer market in 2009.

#### Strategic Partnerships:

MTI Micro intends to sell within multiple industries and enable OEMs to enhance existing product offerings. MTI Micro's strategy is to team with appropriate players in each of its targeted markets. In parallel with its product introduction strategy, MTI Micro plans to leverage joint development activities and other formal partnerships with key component and subsystems suppliers. MTI Micro also intends to rely heavily on OEMs as distribution channels for its products. MTI Micro anticipates that the nature of these relationships will vary, and as MTI Micro continues to mature and move forward with its product commercialization, such relationships will become increasingly important.

Strategic Agreements:

*Samsung Electronics Co., Ltd. ("Samsung")*: On May 16, 2006, MTI Micro entered into an exclusive alliance with Samsung Electronics Co., Ltd. to develop next-generation fuel cell prototypes for Samsung's mobile phone business. Mobion<sup>®</sup>, MTI Micro's DMFC technology, was chosen to power a series of prototypes designed for Samsung's mobile phone and mobile phone accessories. Together, the two companies are developing, testing, and evaluating Mobion<sup>®</sup> technology for various mobile phone applications. In consideration of MTI Micro's supply of the DMFC Prototypes, Samsung is obligated to pay to MTI Micro \$1.0 million billable as follows: (a) \$750,000 within five business days of the effective date of the Agreement; (b) \$125,000 within fifteen days of Samsung's receipt of the two Proof of Concept Prototypes; and (c) \$125,000 within fifteen days of Samsung's receipt of the two (2) Industrial Design Prototypes. To date, Samsung has paid \$875,000 under this contract. Upon successful completion of the agreement, MTI Micro and Samsung intend to continue to work together by entering into a product commercialization agreement.

Under the agreement, MTI Micro delivered two direct methanol fuel cell Proof of Concept Prototypes for Samsung's evaluation during the fourth quarter of 2006. In early 2007, these prototypes were accepted by Samsung. MTI Micro is working to deliver the set of direct methanol fuel cell Industrial Design Prototypes, which will be designed to meet certain industrial design specifications set forth in the agreement.

The Gillette Company ("Gillette"):

On September 19, 2003, MTI Micro entered into a strategic alliance agreement with Gillette whereby MTI Micro, Gillette and Gillette's Duracell business unit agreed to jointly develop and commercialize complementary micro fuel cell products to power future mass market, high volume portable consumer devices. The agreement provides for a multi-year exclusive partnership for the design, development and commercialization of a low power direct methanol micro fuel cell power system and a compatible fuel refill system. The strategic alliance agreement has three main components. First, Gillette and MTI

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Micro shall work together from a technical and marketing perspective to help create a market for micro fuel cells. Second, for a period of time, MTI Micro will receive a percentage of net revenues related to Gillette's sale of fuel refills for micro fuel cells. Third, Gillette has made, and may make in the future, equity investments in MTI Micro. On September 19, 2003, Gillette made an initial \$1.0 million investment in MTI Micro common stock and may make additional investments of up to \$4.0 million, subject to agreed milestones related to technical and marketing progress. As part of the agreement, MTI agreed to provide enough funding to MTI Micro to cover all operational costs for the first two years of the agreement and MTI satisfied this obligation in April 2004.

MTI Micro has not yet achieved the milestone necessary for the investment of the next \$1.0 million by Gillette. We do not expect this investment to occur, if at all, until late 2008. Based on the current rate of progress with Gillette, we anticipate that Gillette will not invest the remaining \$3.0 million until the end of 2009, if at all.

As part of the strategic alliance, MTI Micro transferred patents and other intellectual property related to fuel refill systems to Gillette, and Gillette transferred patents and other intellectual property related to DMFCs for hand held devices to MTI Micro. The patents and other intellectual property transferred to Gillette, and any other intellectual property related to fuel refill systems for fuel cells for handheld devices will be held in a licensing pool, which either party may license upon payment of a royalty fee. Both MTI Micro and Gillette will share in royalties related to the license of any intellectual property from the licensing pool.

The strategic alliance agreement is terminable by either party for cause at any time. In addition, either party may terminate the agreement without cause after the completion of tasks and acceptance of all deliverables relating to the OEM marketing calls and concept product development milestone and the engineering product design milestone, as defined in the agreement and the work plan, as amended.

On August 18, 2004, MTI Micro entered into an amendment to the multi-year strategic alliance agreement. The amendment clarified the nature of the deliverables for the third and fourth milestones in the work plan; added an



additional milestone; and changed the due dates for the third and fourth milestones. MTI Micro also granted a non-exclusive license to Gillette to any improvements made by MTI Micro to intellectual property developed by Gillette.

In May 2005, MTI Micro worked collaboratively with Gillette and completed milestone No. 3 - the development of an engineering prototype with a replaceable fuel refill.

On June 20, 2005, MTI Micro entered into the second amendment to the multi-year strategic alliance agreement. The amendment added an additional milestone relating to product identification, suitability and OEM validation. The amendment also added an additional termination right, exercisable by either party, relating to such milestone.

On September 19, 2006, MTI Micro entered into the third amendment to the multi-year strategic alliance agreement with Gillette. The amendment allows MTI Micro to produce fuel cartridges with additional third party OEMs in support of its first Mobion® consumer products. Also included is the expansion of the scope of work and the extension of a new milestone 4A to accommodate market penetration relating to emerging opportunities including new alliances. MTI Micro will continue to work together with Gillette in the development and mass market commercialization of fuel cells and cartridges.

**E.I. du Pont de Nemours and Company ("DuPont"):**

MTI Micro entered into an agreement with DuPont in August 2001 for the development and commercialization of DMFCs for portable electronics. This agreement expired in July of 2004 and was subsequently extended effective July 23, 2004 for an additional two years and both parties agreed to work together to jointly optimize DuPont's Nafion® membrane technology for MTI Mobion® fuel cell systems. This agreement expired in July of 2006.

MTI Micro is also party to a supply agreement with DuPont providing that MTI Micro must purchase a majority of any membrane it purchases for its fuel cell from DuPont for a period of five years, commencing with the first commercial sale of fuel cells in volume by MTI Micro, if DuPont can meet best price and best quality in the industry. DuPont owns a minority equity interest in MTI Micro.

**Flextronics International USA, Inc. ("Flextronics"):**

In November 2004, MTI Micro entered into a Design Services Agreement with Flextronics for design and development, pre-production design manufacturing engineering, prototyping and first article manufacturing of MTI Micro's Mobion® fuel cell systems. This contract is ongoing.

**SES Americom Inc. ("SES Americom"):**

In December 2005, MTI Micro signed a Market Development Agreement with SES Americom, a world leader in satellite services and satellite-centric networks. As part of the agreement, the parties are working to determine and evaluate the use and integration of MTI Micro's Mobion® technology into SES Americom products that may benefit from alternative energy sources such as fuel cells. The two companies continue to work jointly on market identification, the

development and delivery of prototypes, qualification processes for any resulting products and the development of a market entry strategy for those products.

**Recent Grants , Contracts and Developments**

: During 2006, MTI received two purchase orders totaling \$134 thousand from the Air Force Research Lab ("AFRL"). The purchase orders require the delivery of two 30 Watt platform fuel cell prototypes - Mobion®30M's, twenty methanol fuel cartridge refills and initial training and technical support. AFRL intends to use these fuel cell evaluation kits in a program for the development of satellite communication terminals. As of the end of 2006, delivery of these units was scheduled for 2007.

During 2005, Saft America, Inc. ("SAFT") received a \$1.0 million contract from the U.S. Army Communications Electronic Command ("CECOM") to develop an advanced soldier power system for military applications. MTI Micro is a subcontractor under this agreement and received a purchase order for \$470 thousand, which was reduced in 2006 by \$52 thousand to \$418 thousand, due to a change in program. SAFT and MTI Micro agreed to jointly build, test and demonstrate a system that combines the benefits of both direct methanol fuel cells and lithium ion battery technology. This contract was completed in January 2007.

In January 2006, MTI Micro was notified by the U.S. Department of Energy ("DOE") of a reduction in funding levels to the Hydrogen, Fuel Cells & Infrastructure Technologies Program, MTI Micro would not receive its proportion of funding in 2006 for the \$6,140 thousand, three-year, cost-shared development contract awarded to MTI Micro on August 1, 2004. Under this contract, DOE authorized \$2,350 thousand of spending on a cost-shared basis which may ultimately result in \$1,171 thousand of contract revenue. In February 2007, MTI Micro was notified by DOE that funding levels for this program had been reinstated, however, DOE has not yet issued us a funding notification for 2007. Thus, we cannot determine that funding for 2007 will be committed to this contract, or if MTI Micro will receive any further contract funding notifications.

During 2004, the New York State Energy Research and Development Authority ("NYSERDA") modified its original contract dated March 2002 to reflect the addition of Phase III for \$348 thousand (Enhanced Energy Conversion Efficiency of Direct Methanol Fuel Cells - Validation and Testing) and Phase IV for \$202 thousand (DMFCs for traffic sensors). The project supports DMFC technology development and commercialization efforts. Phase III of this contract was completed in 2005.

In October 2004, MTI Micro received two contracts to demonstrate energy density advantages and quantify potential logistical advantages of its Mobion<sup>®</sup> fuel cells for the U.S. Armed Forces.

-The first award was administered by the U.S. Army Research, Development and Engineering Command and totaled approximately \$250 thousand. The program included the delivery of five integrated, hybrid DMFC systems to Special Operations Forces. These systems are targeted to provide continuous power to devices used by SOF and to deliver more than two times the energy of the battery currently used while fitting the same form factor. On September 29, 2005, MTI Micro fulfilled the contract and delivered five prototypes for sensor applications to the U.S. Special Operations Command to evaluate new technologies for field readiness.

-The second award, a Phase I Small Business Innovative Research contract from U.S. Marine Corps System Command, provided \$70 thousand during 2005 to analyze and report on current regulations and requirements necessary to field DMFCs and fuel refill systems. This contract was completed in 2005.

#### Marketing and Sales:

In the New Energy segment, MTI Micro has an experienced sales and marketing organization. Pursuant to the Gillette strategic alliance agreement, Gillette and the Company have commenced a joint marketing effort to gather market information, generate and refine product roadmaps, establish key relationships, gather customer and OEM feedback, and launch products into the marketplace. MTI Micro regularly evaluates its target market by conducting primary and secondary research and actively meeting and speaking with key industry suppliers and OEMs. In addition, MTI Micro representatives attend and present at numerous conferences and trade shows for fuel cells, fuel cell development, batteries and other relevant target markets.

MTI Micro's Mobion<sup>®</sup> technology has been recognized with four industry awards since 2004. MTI Micro received Frost & Sullivan's 2005 Fuel Cell Entrepreneurial Company of the Year award and its 2004 Technology Innovation Award, as well as accepting an award from Scientific American in recognition of its business leadership. Lastly, MTI Micro was honored in 2004 from Popular Science's *Best of What's New* as grand winner in the general innovations

category.

Competition:

We anticipate that the primary competitive considerations in MTI Micro's markets will be compatibility of DMFC power sources with portable electronic devices, requirements for power pack size, energy content, reliability and price. We also believe the first company to successfully introduce a DMFC product in the commercial markets will have significant advantages over its competitors. Many of MTI Micro's competitors have much greater access to capital, resources, component supplies,

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manufacturing capacity and distribution channels than MTI Micro. As such, because of the nature of product development, we cannot accurately determine our competitors' progress in developing DMFCs and whether such competitors' development efforts exceed MTI Micro's development efforts to date.

We have analyzed MTI Micro's competition based, in part, on two separate components of the DMFC market: (1) companies developing and providing DMFCs producing greater than three watts of energy, particularly companies focused on providing power devices for notebook computers; and (2) companies developing DMFCs producing less than three watts of energy, for use in such appliances as Smartphones, digital cameras, MP3 players, and other hand held items. Within both of these categories, we have witnessed substantial changes during the last five years. Significant new competitors have emerged in Asia, Europe and in the United States. In addition, companies based in Japan, Korea, Germany and the United States have made patent filings in the United States for DMFC technologies.

Less than 3 watt market

Our primary focus in consumer markets is for hand held devices requiring less than 3 watts of energy. Based on publicly available information, we believe MTI Micro's major competitors in the less than three watt energy range is large Asian companies, such as Hitachi Ltd. ("Hitachi"), Fujitsu Limited ("Fujitsu"), Samsung, Samsung Advanced Institute of Technology ("SAIT"), NTT Docomo, Canon, Inc. ("Canon"), and Toshiba. These competitors have extensive patent portfolios and according to published reports, dedicated operations working on DMFCs and have publicly introduced prototypes within the last three years. Hitachi demonstrated DMFCs to be used as an external charger of mobile devices that are rechargeable via a USB interface, Toshiba demonstrated DMFCs in laptop computers, Samsung demonstrated a media player and a laptop docking station, while Canon demonstrated fuel cells for digital cameras.

MTI Micro also competes with a number of smaller companies, such as Medis Technologies Ltd., which announced a distribution and prototyping agreement with General Dynamics for military customers and a contract with Celestica in Ireland for the production and distribution of Power Packs.

Greater than 3 watt market

Based on certain publicly available information, as of December 2006 we believed MTI Micro also faced significant competition in the greater than three watt energy range, and in particular from companies focused on providing power for notebook computers. In this segment, we believe our major competitors are large Japanese, Chinese, Korean and American companies, including but not limited to Canon, Casio Computer Company Ltd., Fujitsu, UltraCell, Hitachi, Matsushita Electric Works ("Panasonic"), NEC, Samsung, SAIT, Sanyo, and Toshiba. Each of these companies has greater access to resources than we do and, as a result of vertical integration, may have significant advantages in bringing products to market. We also consider the Germany-based Smart Fuel Cells AG ("Smart Fuel Cells") to be a significant competitor. Smart Fuel Cells has had products available in the market for four years. Other competitors include Protonex, a developer of fuel cell systems based on hydrogen proton exchange membrane technology, Millennium Cell, a developer of hydrogen battery technology for portable devices and Ultralife Batteries Inc., a

developer of lithium batteries for military applications.

Intellectual Property and Proprietary Rights:

MTI Micro relies on a combination of patent (both national and international), trade secret, trademark and copyright protection to protect its intellectual property ("IP"). MTI Micro's strategy is to apply for patent protection for all significant design requirements. Additionally, MTI Micro systematically analyzes the existing IP landscape for DMFCs to determine where the greatest opportunities for developing IP exist.

In addition, MTI Micro enters into standard confidentiality agreements with its employees and consultants and seeks to control access to and distribution of its proprietary information. Even with these precautions, it may be possible for a third party to copy or otherwise obtain and use our products or technology without authorization or to develop similar technology independently. In addition, effective patent, copyright and trade secret protection may be unavailable or limited in certain foreign countries.

As of December 31, 2006, MTI Micro has filed 84 U.S. patent applications, 26 of which have been awarded. Internationally, MTI Micro has filed 22 Patent Cooperation Treaty Applications, and has filed for National Phase Patent Protection for 11 pieces of intellectual property in multiple countries, including Japan, the European Union, and South Korea. MTI Micro has developed an extensive portfolio of patent applications in areas including fuel cell systems, components, controls, manufacturing processes and system packaging.

MTI Micro believes that the following patents are material to its business and that all of its patents may be significant to its future business activities:

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<u>Patent Title</u>	<u>Expiration Date</u>
- <u>Number</u>	
6,981,877 Simplified direct oxidation fuel cell system	2/19/2022
6,908,701 Methods and apparatuses for managing effluent products in a fuel cell system	3/27/2021
6,890,674 Methods and apparatuses for managing fluids in a fuel cell system	02/19/2022
6,824,899 Apparatus and Methods of Sensor-less Optimization of Methanol Concentration in a DMFC	11/22/2020
6,821,658 Cold Start and Temperature Control Method and Apparatus for a Fuel Cell System	03/02/2021
6,794,067 Fuel Cell Control and Measurement Apparatus and Method Using Dielectric Constant Measurement	11/29/2020
6,761,988 FC System with Active Methanol Concentration Control	11/21/2020

6,686,081	Methods and Apparatuses for a Pressure Driven Fuel Cell System	05/15/2021
6,632,553	Methods and Apparatuses for Managing Effluent Products in a Fuel Cell System	03/27/2021
6,590,370	Switching DC-DC Power Converter and Battery Charger for Use with a DOFC Power Source	10/01/2022

In December 2000, MTI Micro licensed, on a non-exclusive basis, ten patent applications (eight issued and two abandoned) from Los Alamos National Laboratory ("LANL"). MTI Micro based its early DMFC systems work on these patents. MTI Micro has also licensed from LANL, on an exclusive basis, rights to European and Japanese counterpart applications for one LANL patent. In January 2005, MTI Micro and LANL modified the existing license such that it included, in its entirety, a total of nine issued U.S. patents. In April 2006, MTI Micro and LANL modified the existing license such that it included, in its entirety, a total of four issued U.S. patents. In this modification, changes were made to the license fees and royalties due under such license. MTI Micro also has licensing rights and obligations with respect to IP developed under agreements with Gillette, DuPont and other vendors.

#### Codes and Standards:

MTI Micro is a leader in the development of codes and standards associated with direct methanol fuel cells. In 2004, MTI Micro became the world's first company to obtain micro fuel cell safety compliance certifications for a fuel cell product from Underwriter's Laboratory ("UL") and from CSA International ("CSA"). MTI Micro received United Nations ("UN") packaging certification and was deemed compliant by the U.S. Department of Transportation for worldwide cargo shipment of its methanol fuel cartridges.

In addition to being the first company to receive UL and CSA certification, MTI Micro worked to help develop the proposal adopted by the UN which gives methanol fuel cartridges their own classification, a significant step forward for MTI Micro and the industry. MTI Micro and others worked with regulatory bodies to create a first draft of the international standards for methanol safety and use, including those related to transport on commercial airplanes. At the same time, a number of presentations were made to various UN bodies in an effort to increase the understanding and acceptance of micro fuel cells and fuel cartridges. As a result of this effort, the International Civil Aviation Organization ("ICAO") technical instructions and the International Air Transport Association ("IATA") Dangerous Goods Regulations permit the carrying and use of certain fuel cell power systems and fuel cell cartridges containing methanol, butane and formic acid by passengers and crew. The provisions adopted by ICAO and IATA are embodied within IEC-62282-6-1, which was specifically adopted by the International Electrochemical Commission for fuel cell power systems and fuel cell cartridges as a complement to existing standards and regulatory requirements for consumer electronic products. Currently, the U.S. Department of Transportation is reviewing the ICAO and IATA air transport regulations for expected adoption in 2007.

As part of the vote from the ICAO safety panel in 2005, other fuels - such as hydrogen and sodium borohydride - were not approved for transport within civilian aviation cabins, outlining a possible barrier of entry into the business/leisure travel consumer market for those companies developing competing technologies with such fuels.

#### Test and Measurement Instrumentation Segment

MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems for semiconductor wafers. MTI Instruments products use state-of-the-art technology to solve complex real world applications in numerous industries including automotive, semiconductor, commercial and military aviation and data storage. MTI Instruments is currently investing in extending their sales reach, including expanded sales coverage in both Europe and the Far East as well as a concentrated focus on internet marketing. Product investments share a common theme: incorporation of our product technology into larger value added systems that enable MTI Instruments to offer complete solutions that customers demand. MTI Instruments has industry recognized customer service and has worked with over 200 companies worldwide.

Products and Services:

MTI Instruments has three product groups: general dimensional gauging, semiconductor and aviation. Our 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 of semi-insulating and semi-conducting wafers for the semiconductor market; and engine balancing and vibration analysis systems for both military and commercial aircraft.

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General Dimensional Gauging:

MTI Instruments' Precision Instruments employ fiber optic, laser and capacitance technologies to make nano-accurate measurements in product design and quality related processes. Gauging products include laser, fiber-optic and capacitance systems that measure a variety of parameters including displacement, position, vibration and dimension.

Listed below are selected MTI Instruments' Precision Instruments product offerings:

<u>Product</u>	<u>Description</u>	<u>Markets Served</u>
Accumeasure Family	Ultra-high precision capacitive gauging system offering nanotechnology accuracy.	Data storage, semiconductor and automotive industries.
MTI-2100 Fotonic ™ Sensor Series	Fiber-optic based vibration sensor systems with extremely high frequency response.	Data storage, semiconductor and automotive industries.
Microtrak ™ II	High speed laser sensor systems utilizing the latest complementary metal-oxide semiconductor/charge-coupled device technology.	Data storage, semiconductor and automotive industries.

Semiconductor:

MTI Instruments' family of wafer metrology systems range from manually operated units to fully automated systems which test key wafer characteristics critical to producing high quality chips used in the semiconductor industry. These units are used as quality control tools delivering highly precise measurements for thickness variations, bow, warp, resistivity, and flatness. These systems can be used on substrates varying widely in size and materials.

Its semiconductor metrology systems include the following products:

<u>Product</u>	<u>Description</u>	<u>Markets Served</u>
Proforma™ AutoScan 200	Fully automated wafer characterization system for measuring thickness, total thickness variation ("TTV"), bow, warp, bulk resistivity, site and global flatness. The Proforma™ AutoScan 200 features pick and place robotics, laser cassette scanning, auto-sensing cassette stands for wafers of 75 - 200 mm diameter and a modular design for easy upgrades.	Wafer metrology segment of the semiconductor industry.

Proforma™ 200SA/300SA	Semi-automated, full wafer surface scanning for thickness, TTV, bow, warp, site and global flatness. The Proforma™ 200SA can be used for all wafer materials and accommodates diameters of 75 - 200 mm.	Wafer metrology segment of the semiconductor industry.
Proforma™ 300/300G	Manual, non-contact measurement of wafer thickness, TTV and bow. The Proforma™ 300 measures all wafer materials including Silicon, Gallium-Arsenide, Indium-Phosphide and wafers mounted to sapphire or tape. The Proforma™ 300/G can accept wafers from 50 to 300 mm.	Wafer metrology segment of the semiconductor industry.

Aviation:

MTI Instruments' computer-based PBS products automatically collect and record aircraft engine vibration data, identify vibration or balance trouble in an engine and calculate a solution to the problem. These units are used and recommended by major aircraft engine manufacturers and are also used extensively by the U.S. Air Force, other military and commercial airlines and gas turbine manufacturers.

MTI Instruments' aviation and industrial vibration measurement systems products include vibration analysis and engine trim balance instruments and accessories for commercial and military jets. These products are designed to quickly pinpoint engine problems and eliminate unnecessary engine removals. Selected products in this area include:

<u>Product</u>	<u>Description</u>	<u>Markets Served</u>
PBS-4100 Portable Plus Balancing System	The standard of the aviation industry worldwide, the portable PBS-4100 Plus detects if an engine has a vibration problem or a trim balance problem and provides a solution. This system works on all engine types and models from all engine manufacturers.	Major commercial airlines, regional carriers, and the U.S. Military.
PBS-4100R Test Cell Vibration Analysis & Trim Balance System	Advanced trim balancing and diagnostic features for engine test cells.	Major commercial airlines, regional carriers, and the U.S. Military
PBS-3300	A compact balancing and vibration system for use in mobile test cells and distributed test stands.	Major commercial airlines, regional

carriers, and the U.S. Military.

### Marketing and Sales:

In the Test and Measurement Instrumentation segment, MTI Instruments markets its products and services using channels of distribution specific to each of its product groups and customer base. The general dimensional gauging product group markets its products through a combination of manufacturer representatives in the United States and distributors overseas. The semiconductor product group markets its products exclusively through domestic distributors and international sales representatives, while the aviation group primarily sells direct to the end user.

To supplement these efforts, the company utilizes both commercial and industrial search engines, targeted newsletters and appropriate trade shows to identify and expand its customer base.

Comparisons of sales by class of products, which account for over 10 percent of the Company's consolidated sales, are shown below for the years ended December 31:

	2006		2005		2004	
(Dollars in thousands)	<u>Sales</u>	<u>%</u>	<u>Sales</u>	<u>%</u>	<u>Sales</u>	<u>%</u>
Aviation	\$ 2,990	39.00%	\$ 3,013	50.12%	\$ 4,027	53.48%
General Gauging	4,165	54.32	2,688	44.71	2,393	31.78
Semiconductor	<u>512</u>	<u>6.68</u>	<u>311</u>	<u>5.17</u>	<u>1,110</u>	<u>14.74</u>
Total	<u>\$ 7,667</u>	<u>100.00%</u>	<u>\$ 6,012</u>	<u>100.00%</u>	<u>\$ 7,530</u>	<u>100.00</u>
						%
Total Foreign-Based Revenue	<u>\$ 2,930</u>	<u>38.22%</u>	<u>\$ 1,261</u>	<u>20.97%</u>	<u>\$ 1,146</u>	<u>15.22%</u>

### Product Development and Manufacturing:

MTI Instruments is working on expanding its range of capacitance products to increase penetration into new market segments. Management believes that the success of the enterprise depends to a large extent upon innovation, technological expertise and new product development. Initiatives are underway to bring new products to market during 2007 while continuing to develop advanced PBS systems for use in the military and commercial markets.

MTI Instruments' most recent product offerings include: in aviation, for 2006, introduction of the PBS-4100 Plus - an advanced and compact portable jet engine balancing and vibration diagnostics system for use by both military and commercial carriers. In the general gauging area, the introduction of the MTI-2100 Fotonic™ Sensor - a "next generation" fiber-optic sensor for high-resolution, non-contact measurement of high frequency vibration and motion analysis. The amplifier replaced the MTI-2000 Fotonic Sensor. MTI Instruments also added the 1515 low-noise amplifier to its Accumeasure product line which is designed to meet the stringent requirements of brake rotor measurement applications in the automotive industry. In semiconductors, the introduction of the Proforma™ 300SA - a semi-automated tool for measuring thickness, total thickness variation, bow, warp, stress and flatness of 300mm wafers.



MTI Instruments assembles and tests its products at its facilities located in Albany, New York. MTI Instruments believes that its existing assembly and test capacity is sufficient to meet its current needs and short term future requirements. Management believes that most of the raw materials used in our products are readily available from a variety of vendors.

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Intellectual Property and Proprietary Rights:

MTI Instruments relies on trade secret laws and patents to establish and protect the proprietary rights of its products. In addition, MTI Instruments enters into standard confidentiality agreements with its employees and consultants and seeks to control access to and distribution of its proprietary information. Even with these precautions, it may be possible for a third party to copy or otherwise obtain and use our products or technology without authorization or to develop similar technology independently. In addition, effective patent and trade secret protection may be unavailable or limited in certain foreign countries. MTI Instruments has one patent issued supporting its semiconductor product line.

Significant Customers:

MTI Instruments' largest customers are the U.S. Air Force and Koyo Precision ("Koyo"), its Japanese distributor. It also has relationships with companies in the manufacturing, semiconductor, automotive, aerospace, aircraft and research industries. In the Test and Measurement Instrumentation Segment, in 2006, the U.S. Air Force accounted for \$1,774 thousand or 23.1% of product revenues while Koyo accounted for \$1,757 thousand or 22.9%; in 2005, the U.S. Air Force accounted for \$2,385 thousand or 39.7% of product revenues; and in 2004, the U.S. Air Force accounted for \$3,508 thousand or 46.6% of product revenues. A loss of customers like the U.S. Air Force or Koyo could have a material adverse effect on this segment.

Recent Contracts:

In 2002, MTI Instruments was awarded a multi-year U.S. Air Force contract to service and retrofit its existing fleet of PBS-4100 jet engine balancing systems with the latest diagnostic and balancing technology, which could potentially generate up to a total of \$8,800 thousand in sales for the Company between the years 2002 and 2007. As of December 31, 2006, MTI Instruments had recorded \$6,640 thousand in orders, approximately 75% of the five-year contract's total value.

Competition:

MTI Instruments is subject to competition from several companies, many of which are larger than MTI Instruments and have greater financial resources. MTI Instruments' competitors include KLA-Tencor, Sigma Tech Corporation, Corning Tropel Corporation, Chadwick-Helmuth, ACES Systems, Micro-Epsilon, and Keyence Corporation. While MTI Instruments has a share of its respective specialized market segments, it does not consider its share to be dominant within its industry. The primary competitive considerations in MTI Instruments' markets are product quality, performance, price, timely delivery, and the ability to identify, pursue and bring new customers. MTI Instruments believes that its employees, product development skills, sales and marketing systems and reputation are competitive advantages.

Employees

The total number of employees of the Company and its subsidiaries was 132 as of December 31, 2006, as compared to 125 as of December 31, 2005. Fiscal 2006 employees include corporate operations and the Company's two subsidiaries, MTI Micro and MTI Instruments. Executives and staff were chosen for their acumen, ability and experience in areas critical to the execution of the Company's core business strategy.

#### Financing Arrangements

##### Sale of Common Stock and Warrants

: On December 15, 2006, the Company entered into definitive agreements to raise \$10,900 thousand in gross proceeds through the sale of shares of its common stock and warrants to purchase shares of common stock to a group of three investors pursuant to the Company's existing shelf registration statement previously filed and declared effective by the Securities and Exchange Commission ("SEC"). The Company entered into subscription agreements with these investors pursuant to which the Company agreed to sell a total of 6,055,556 shares of its common stock at \$1.80 per share, which represents a 20.3% discount to the closing price on December 14, 2006, and to issue these investors five-year warrants to purchase up to an additional 3,027,778 shares of the Company's common stock at an exercise price of \$2.27 per share.

Proceeds to the Company from this offering which closed on December 20, 2006, net of offering expenses and placement agency fees, total approximately \$10,200 thousand. Net proceeds from the offering are expected to be used for general corporate purposes and to support further development and commercialization of the Company's award winning Mobion® cord-free advanced portable power systems, through its subsidiary MTI Micro.

In connection with provisions of a 2004 private placement agreement entered into with Fletcher International, Ltd. ("Fletcher"), the Company was required to issue shares of its common stock to Fletcher upon the occurrence of certain events, including certain subsequent equity issuances such as this offering. As a result of a letter agreement dated as of December 7, 2006, which amended the relevant provisions of the Fletcher private placement agreement to reduce by 25% the number of shares to be issued to Fletcher, the Company issued to Fletcher 267,314 shares of the Company's common stock. In connection with a release dated January 5, 2007, between the Company and Fletcher, the Company is not required to register the resale by Fletcher of these shares with the SEC since these shares may be sold by Fletcher without registration pursuant to rule 144(k) under the Securities Act of 1933, as amended. In very limited circumstances, the Company may be required to register the resale of these shares in the future if requested by Fletcher.

##### Private Placement:

The Company entered into a financing transaction with Fletcher on January 29, 2004 and amended the terms of such transaction on May 4, 2004. As of December 31, 2006, the expiration date of the agreement, Fletcher had purchased 2,680,671 shares of our common stock pursuant to such financing transaction. In addition, Fletcher had the right to purchase an additional \$20.0 million of MTI common stock, on one or more occasions, at a price of \$6.023 (adjusted from \$6.34) per share at any time prior to December 31, 2006. Fletcher also had the right to receive Company shares without payment upon the occurrence of certain events, including but not limited to, failing to register for resale with the SEC shares purchased by Fletcher on the agreed upon time table, a restatement of the Company's financial statements, change of control of the Company and issuance of securities at a price below Fletcher's purchase price. We have filed registration statements covering all of the shares purchased by Fletcher to date and in the event of any additional purchases we are similarly obligated to file one or more registration statements covering the resale of such shares. In connection with the late effective date for the registration statement filed on January 6, 2005, the Company

issued and registered 66,413 shares of common stock to Fletcher without any additional payment. At December 31, 2006, Fletcher owned 267,314 shares or 0.6% of the Company's common stock.

#### Gillette Company ("Gillette")

: Gillette entered into a strategic alliance agreement with MTI Micro on September 19, 2003, whereby MTI Micro, Gillette and Gillette's Duracell business unit will seek to jointly develop and commercialize micro fuel cell products to power high-volume, low-power, hand-held and mass market portable consumer devices. This agreement was amended on September 19, 2006, June 20, 2005 and August 18, 2004. Pursuant to the agreement, Gillette purchased 1,088,278 shares of MTI Micro common stock (362,760 post 2004 1-for-3 reverse split) at a price of \$.92 (\$2.76 post 2004 1-for-3 reverse split) per share for \$1.0 million. In connection with this agreement, Gillette may make additional investments of up to \$4.0 million, subject to agreed milestones.

#### Backlog

The Company's backlog of orders believed to be firm is as follows:

December 31, 2006	\$ 200 thousand
December 31, 2005	\$ 900 thousand
December 31, 2004	\$ 500 thousand

The backlog relates to contracts and purchase orders received from commercial customers and government agencies at MTI Instruments, with the dimensional gauging product line representing 75% of this amount.

#### Segment Information

Segment information is set forth in Note 18 - Geographic and Segment Information - of the Notes to Consolidated Financial Statements referred to in Item 8 below and incorporated herein by reference.

#### Subsequent Events

#### Recent Developments:

See the discussion of "Recent Developments" in Item 1 of this Report.

#### Availability of Information

The Company makes available through our website (<http://www.mechtech.com>), free of charge, our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and amendments to those reports, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after such reports are electronically filed with, or furnished, to the SEC. These reports may be accessed through the Company's website's Investor Relations page.

The public may read and copy any materials the Company files with the SEC at the SEC Public Reference Room at 100 F Street, NE, Room 1580, Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. The Company files electronically with the SEC and the SEC maintains an Internet site (<http://www.sec.gov>) that contains reports, proxy and information statements, and

other information regarding issuers that file electronically with the SEC.

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## Item 1A: Risk Factors

### Factors Affecting Future Results

This Annual Report on Form 10-K and the documents we have filed with the Securities and Exchange Commission that are incorporated by reference into this Form 10-K contain forward-looking statements that involve risks and uncertainties. Any statements contained, or incorporated by reference, in this Form 10-K that are not statements of historical fact may be forward-looking statements. When we use the words "anticipate," "estimate," "plans," "projects," "continuing," "ongoing," "expects," "management believes," "we believe," "we intend," "should," "could," "may," "will" and similar words or phrases, we are identifying forward-looking statements. Forward-looking statements involve risks, uncertainties, estimates and assumptions which may cause our actual results, performance or achievements to be materially different from those expressed or implied by forward-looking statements. These factors include, among others:

- our need to raise additional financing;
- our ability to secure continued government funding;
- the potential for early termination of our agreement with Gillette and its Duracell division;
- risks related to developing Mobion® direct methanol micro fuel cells and whether we will ever successfully develop commercially viable Mobion® fuel cell systems;
- our inability, or Gillette's inability, to develop Mobion® fuel cell systems or fuel refills on our planned schedule;
- market acceptance of Mobion® fuel cell systems;
- risks related to our first field test ready military application Mobion® fuel cell product including technical, customer acceptance and safety;
- our dependence on Original Equipment Manufacturers ("OEMs") integrating Mobion® fuel cell systems into their devices;

- the potential for early termination of our agreement with Samsung if we cannot supply them with acceptable prototypes;
- the need for current regulations to change to permit methanol to be carried onto airplanes for Mobion® fuel cell systems to achieve mass market commercialization;
- risks related to the flammable nature of methanol as a fuel source;
- our history of losses;
- intense competition in the direct methanol fuel cell and instrumentation businesses;
- risks related to protection and infringement of intellectual property;
- the historical volatility of our stock price;
- risks relating to the market price of the Plug Power common stock that we own;
- general market conditions;
- MTI Instruments sales revenue growth may not be achieved;
- MTI Instruments sales dependence on a small number of customers; and
- other factors referred to under the caption "Risk Factors" below.

Except as may be required by applicable law, we do not undertake or intend to update or revise our forward-looking statements, and we assume no obligation to update any forward-looking statements contained in, or incorporated by reference into, this Annual Report on Form 10-K as a result of new information or future events or developments. Thus, assumptions should not be made that our silence over time means that actual events are bearing out as expressed or implied in such forward-looking statements.

## Risk Factors

Set forth below are certain risks and uncertainties that could adversely affect our results of operations or financial condition and cause our actual results to differ materially from those expressed in forward-looking statements made by the Company. Also refer to Factors Affecting Future Results.

We may be unable to raise additional capital to complete our product development and commercialization plans and the failure to complete such development and commercialization plans will materially adversely affect our business plans, prospects, results of operations and financial condition.

Our cash requirements depend on numerous factors, including completion of our product development activities, our success in commercializing our Mobion® fuel cell systems and market acceptance of Mobion® fuel cells. Before we can successfully commercialize Mobion® fuel cells, we must complete a number of critical activities, and certain events must occur, including further product development; manufacturing process development; development of large-scale production capabilities; completion, refinement and management of our supply chain; completion,

refinement, and management of our distribution channel; and further work on codes and standards critical to consumer acceptance, including the existence of federal regulations that permit methanol in the passenger compartment of passenger airplanes. All of this will be expensive and require significant capital resources, well in

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excess of all current resources available to us. We believe that we will need to raise additional funds to achieve commercialization of Mobion® fuel cells; however, we do not know whether we will be able to secure additional funding, or funding on acceptable terms to pursue our commercialization plans. We can raise funds in four ways: sale of our Plug Power shares, sale of our Company's stock, sale of MTI Micro stock and sale of other assets. If we secure additional funding, we may be forced to increase the number of Plug Power shares sold to fund operations, or reduce spending on micro fuel cell development. If additional funds are raised through the issuance of equity securities, the percentage ownership of our then current shareholders will be reduced. If adequate funds are not available to satisfy either short or long-term capital requirements, we may be required to limit operations in a manner inconsistent with our development and commercialization plans, which would materially adversely affect our business plans, prospects, results of operations and financial condition in future periods.

We are dependent on continued government funding for new energy research and development and MTI Instruments product sales. The loss of such contracts and the inability to obtain additional contracts may have a material adverse effect on our business plans, prospects, results of operations, cash flows and financial condition.

A large portion of revenues at MTI Instruments and MTI Micro for the next several years may come from government contracts. We can offer no assurance that we will be able to secure continued government funding. The loss of such contracts and the inability to obtain additional contracts could materially adversely affect our business plans, prospects, results of operations, cash flows and financial condition.

Our MTI Instruments business is dependent upon a small number of customers that represent a large percentage of their revenues. The loss of any of their top customers, or a reduction in sales to any such customer, could have a material adverse effect on the Company's business, financial condition and results of operations.

Measurement and gauging instrumentation, such as those produced at MTI Instruments, can be sold in large quantities to a relatively few customers when our technology is embedded in our customer's final product. This can lead to a few customers at MTI Instruments constituting a majority of the Company's consolidated product sales. MTI Instruments' top six customers represented approximately 62% of total product sales in 2006. Moreover, the top two customers (one of which is the U.S. Air Force) represented approximately 46% of total product sales in 2006. The loss of any significant portion of MTI Instruments' sales to any major customer, the loss of a single major customer or a material adverse change in the financial condition of any one of these customers could have a material adverse effect on the Company's business, financial condition and financial results.

We may not successfully develop our new technology and the failure to do so will materially adversely affect our business plans, prospects, results of operations and financial condition.

DMFCs are a new technology with many technical and engineering challenges still to be resolved. We cannot assure that we will be able to successfully resolve the technical and engineering challenges of DMFCs, or if we are successful, that such solutions will be commercially viable. Resolution of these technical and engineering issues requires substantial resources including financial, managerial and technical resources. We cannot assure that all of the necessary resources will be available to the degree, and at the times, that they are needed. If we are unable to successfully develop Mobion® fuel cells, our business plans, prospects, results of operations and financial condition would be materially adversely affected.

Current commitments for joint development, distribution, marketing and investment by The Gillette Company ("Gillette") and its Duracell division may be subject to early termination and any such early termination will have material adverse consequences on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

Gillette and its Duracell division's commitments in the strategic alliance agreement and the other agreements entered into as a part of the strategic alliance transaction (including those commitments relating to joint development, distribution, marketing and investment) with MTI Micro are subject to early termination. Either MTI Micro or Gillette may terminate the strategic alliance agreement for cause at any time and at certain pre-defined periods of time if technical milestones are not completed to the satisfaction of the other party. Gillette may also terminate the strategic alliance agreement prior to mass market commercialization if it decides not to establish fuel refill manufacturing capability.

The investment agreement with Gillette may be terminated if the strategic alliance agreement is terminated. In addition, any future investment by Gillette is conditioned upon MTI Micro reaffirming that the representations and warranties in the investment agreement are true as of the date of such investment. These representations and warranties include statements concerning ownership of intellectual property, and affirmations that MTI Micro is not infringing on the intellectual property of others and others are not infringing on MTI Micro's intellectual property. At this time we cannot determine whether MTI Micro will be able to make these statements as of the date of any potential future investments by Gillette, and the inability to make such statements could result in Gillette terminating the investment agreement.

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Termination of MTI Micro's agreements with Gillette and its Duracell division would have material adverse consequences on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

MTI Micro may never complete the development of commercially acceptable Mobion® fuel cell products and may not be able to achieve profitable commercialization of its products in the military/industrial and consumer market on the timetable it anticipates, or at all, and any such delay or failure would have material adverse consequences on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

We cannot guarantee that MTI Micro will be able to develop commercially viable Mobion® fuel cell products in the military/industrial and consumer market on the timetable it anticipates, or at all. The commercialization of Mobion® fuel cell products requires substantial technological advances to improve the efficiency, functionality, reliability, cost, performance and environmental operating latitude of these systems and products and to develop commercial volume manufacturing processes for these systems and products. We cannot guarantee that MTI Micro will be able to develop the technology necessary for commercialization of Mobion® fuel cell products, or acquire or license the required technology from third parties. MTI Micro's failure to develop the technology necessary for high-volume commercialization of Mobion® fuel cells that are reliable, cost effective and present a value proposition to the customer will, in each case, have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

A mass market for fuel cells may never develop or may take longer to develop than we anticipate.

Fuel cell systems represent emerging technologies, and we do not know whether consumers will adopt these technologies on a large scale or whether Original Equipment Manufacturers ("OEMs") will incorporate these technologies into their products. In particular, if a mass market fails to develop, or develops more slowly than

anticipated, for methanol portable power applications, we may be unable to recover our expenditures to develop our fuel systems and may be unable to achieve or maintain profitability, any of which could negatively impact our business. Estimates for the development of a mass market for fuel cell products and systems have lengthened in recent years. Many factors that are beyond our control may have a negative effect on the development of a mass market for fuel cells and our fuel systems for methanol applications. These factors include the following:

- cost competitiveness;
- product specifications such as physical size and weight of fuel cell systems and components;
- availability, future costs, future distribution and safety of methanol, natural gas and other potential fuel cell fuels;
- consumer acceptance of methanol or alternative fuel products;
- government funding and support for the development of methanol fuel cells for portable applications;
- the willingness of OEMs to replace current power technology;
- consumer perceptions of methanol systems;
- regulatory requirements; and
- emergence of newer, breakthrough power technologies and products.

Our cost to produce our current Mobion® fuel cell product exceeds the amount for which we can currently sell such product. If we are unable to reduce the costs of our Mobion® fuel cells, it will have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

The commercialization of MTI Micro's Mobion® fuel cell products depends upon MTI Micro's ability to significantly reduce the costs of these systems and products, since they are currently substantially more expensive than systems and products based on existing technologies, such as rechargeable batteries.

The price of our fuel cell products is dependent largely on material and other manufacturing costs. We are unable to offer any assurance that either we or a contract manufacturer will be able to reduce costs to a level which will allow production of a competitive product that the consumer finds attractive or that any product produced using lower cost materials and manufacturing processes will not suffer from a reduction in performance, reliability and longevity.

The production costs of our initial industrial and military products were higher than their sales prices. We recognize that successfully implementing our strategy and obtaining a significant share of the military, industrial and consumer markets requires that we offer our direct methanol fuel cell products at competitive prices, which can only be accomplished when production costs are cut substantially from current levels. If we are unable to produce direct methanol fuel cell products at competitive prices relative to alternative technologies and products, our target market



customers will be unlikely to buy our fuel cell products.

The failure to achieve cost reductions may materially adversely affect MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

Gillette may not be able to achieve commercialization of fuel refills on the timetable we anticipate, or at all, and the delay or failure to achieve such commercialization would have material adverse consequences on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

We cannot guarantee that Gillette will be able, or will choose, to develop, acquire or license commercially viable fuel refills for Mobion® fuel cell products on the timetable we anticipate, or at all. The commercialization of fuel refills for Mobion® fuel cell products requires substantial technological advances to improve the efficiency, functionality, reliability, cost and performance of these systems and products and to develop commercial volume manufacturing processes for these systems and products. Gillette's failure to supply fuel refills would have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

A viable market for micro fuel cell systems may never develop or may take longer to develop than we anticipate. If a market for fuel cells does not develop or is delayed, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Micro fuel cell systems for portable electronic devices represent an emerging market, and we do not know the extent to which our targeted distributors and resellers will want to purchase them and whether end-users will want to use them. The development of a viable market for our systems may be impacted by many factors that are out of our control, including:

- the cost competitiveness of other micro fuel cell systems;
- the future costs of materials used to build our systems;
- consumer reluctance to try a new product;
- consumer perceptions of our systems' safety;
- regulatory requirements;
- improvements in existing rechargeable battery technology; and
- the emergence of newer, more competitive technologies and products.

If a viable market fails to develop, or develops more slowly than we anticipate, we may be unable to recover the losses we will have incurred to develop our product and we may be unable to achieve profitability, each of which would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Our first field test ready military application Mobion® fuel cell product could fail due to technical, customer identification, customer acceptance, inability to deliver, safety or other reasons. Any such failure could have a material adverse effect on MTI Micro's and the Company's business plans and prospects.

We anticipate shipping field test ready military application Mobion® fuel cell products starting April 2007. We may experience difficulty in identifying customers for these initial and future applications, or if customers are identified, shipping units. We may experience problems with the fuel cells, including reliability issues, run time, customer acceptance or safety. If these military application fuel cell products experience failures, it could result in a material

adverse effect on MTI Micro's and the Company's business plans and prospects.

Alternatives to our technology could render our systems obsolete prior to commercialization, which would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Our Mobion® fuel cells are one of a number of alternative portable power energy solutions being developed as replacements for

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batteries. Technological advances in existing battery technologies or other fuel cell technologies may render our micro fuel cell systems obsolete and this would materially adversely affect our business plans, prospects, results of operations and financial condition.

MTI Micro is dependent upon external OEMs to purchase certain products and integrate Mobion® fuel cells into their products. If external OEMs do not purchase and integrate Mobion® fuel cells into their products, our market will be very limited, which could have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

To be commercially useful, our Mobion® fuel cells must be integrated into products manufactured by OEMs. We cannot guarantee that OEMs will manufacture appropriate products or, if they do manufacture such products, that they will choose to use Mobion® fuel cells. Any integration, design, manufacturing or marketing problems encountered by OEMs could adversely affect the market for Mobion® fuel cells, which could have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

In order to achieve mass commercialization of Mobion® fuel cells, customers must be able to carry methanol fuel inside the passenger compartment of commercial airlines. If current U.S. Department of Transportation ("DOT"), Federal Aviation Administration ("FAA") and certain international regulations do not change, passengers will be unable to carry non-dilute methanol in the passenger compartments of airplanes, which will have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

Current airline and FAA regulations and certain international laws, regulations and treaties limit the amount and concentration of methanol that any passenger can carry aboard passenger planes. We believe that these regulations must change for mass commercialization of Mobion® fuel cell products to be possible. If regulatory changes approved by the International Civil Aviation Organization are implemented by the DOT, the FAA and other similar international bodies, this will permit direct methanol micro fuel cells and refill cartridges to be carried in the passenger compartment of airplanes. If these regulations do not change, it would materially adversely affect MTI Micro's ability to achieve mass commercialization of Mobion® fuel cell products and have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

The sale of a substantial amount of our common stock in the public market could materially decrease the market price of our common stock.

The Company sold common stock and warrants during December 2006. If this investor group exercises their warrants and a substantial amount of our common stock is sold in the public market, or even targeted for sale, it could have a material adverse effect on the market price of our common stock and our ability to sell common stock in the future.

Current shareholders may be diluted as a result of additional financings.

If we raise additional funds through the sale of equity or convertible debt securities in either the Company or MTI Micro, current shareholders' percentage ownership will be reduced. In addition, these transactions may dilute the value

of common stock outstanding. Moreover, we may have to issue securities that may have rights, preferences and privileges senior to our common stock. We cannot assure that we will be able to raise additional funds on terms acceptable to us, if at all. If future financing is not available or is not available on acceptable terms, we may not be able to fund our future needs, which would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We may be involved in intellectual property litigation that causes us to incur significant expenses or prevents us from selling our products, which could have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

In recent years, hundreds of fuel cell patents have been issued worldwide. Many of these patents are broadly written and encompass basic and fundamental theories of how fuel cells should or could work. As we continue to develop our technology, our designs unknowingly may infringe on the patent or intellectual property rights of others. Whether our technology infringes or not, MTI Micro and our Company may become subject to lawsuits in which it is alleged that we have infringed on the intellectual property rights of others. We may also commence lawsuits against others who we believe are infringing upon MTI Micro's rights. Involvement in intellectual property litigation could result in significant expense to MTI Micro and our Company, adversely affecting the development of sales of the challenged product or intellectual property and diverting the efforts of our technical and management personnel, whether or not such litigation is resolved in our favor. In the event of an adverse outcome as a defendant or plaintiff in any such litigation, MTI Micro and the Company may, among other things, be required to:

- pay substantial damages;

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- cease the development, manufacture, use, sale or importation of products that infringe upon other patented intellectual property;

- expend significant resources to develop or acquire non-infringing intellectual property;

- discontinue processes incorporating infringing technology; or

- obtain licenses to the infringing intellectual property.

We cannot guarantee that MTI Micro or the Company would be successful in such development or acquisition or that such license would be available upon reasonable terms. Any such development, acquisition or license could require the expenditure of substantial time and other resources and could have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

MTI Micro's products use potentially dangerous, flammable fuels, which could subject its business and the Company to product liability claims. Any such lawsuits or claims could have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

The sale of Mobion® fuel cell products exposes MTI Micro and the Company to potential product liability claims that are inherent in methanol and products that use methanol. Methanol is flammable and therefore potentially dangerous. Any accidents involving MTI Micro's products or other methanol-based products could materially impede widespread market acceptance and demand for DMFCs which could have a material adverse effect on MTI Micro's and the Company's business plans and prospects. In addition, MTI Micro may be held responsible for damages beyond the scope of its insurance coverage. We also cannot predict whether MTI Micro will be able to maintain its insurance coverage on acceptable terms. Damages beyond the scope of MTI Micro's insurance coverage or the inability to

maintain insurance coverage on acceptable terms would have a material adverse impact on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

Our competitors may develop a more cost effective, better product and bring that product to market faster than we can. If we do not create a competitive DMFC product or we are late to market, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

There are a number of other companies developing DMFCs. Some of our competitors may have better access to resources and capital than we do. Some of our competitors are much larger and have better access to manufacturing capacity, supply chains and distribution channels than we do. Some of our competitors may resolve technical or engineering issues before we do. Accordingly, one or more of our competitors may bring a mass commercial product to market before we do. In addition, one or more of our competitors may make a better or more cost effective product than we can make. Failure to get to market with the best and most cost competitive DMFC product before our competitors would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We have limited experience manufacturing fuel cell systems on a commercial basis. If we do not achieve the necessary manufacturing capabilities, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

To date, we have focused primarily on research and development and have limited experience manufacturing micro fuel cell systems on a commercial basis. We can offer no assurance that either we, our contract manufacturers or any other party we partner with to volume-produce our products will develop efficient, automated, low-cost manufacturing capabilities and processes to meet the quality, price, engineering, design and production standards or production volumes required to successfully mass market our fuel cell products. Even if we or our contract manufacturers are successful in developing such manufacturing capability and processes, we do not know whether we or they will be timely in meeting our product commercialization schedule or the production and delivery requirements of potential customers. Failure to develop or procure such manufacturing capabilities will have a material adverse effect on the Company's business plans, prospects, results of operations and financial condition.

We may not be able to establish additional strategic relationships that we will need to complete our product development and commercialization plans. If we are unable to develop necessary strategic relationships on terms that are acceptable to us, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We believe that we will need to enter into additional strategic relationships in order to complete our current product development and commercialization plans on schedule. If we are unable to identify or enter into satisfactory agreements with potential partners, we may not be able to complete our product development and commercialization plans on schedule or at all, which would have a material adverse effect on our business plans, prospects, results of operations and financial condition. We may also need to scale back these plans in the absence of partners, which would materially adversely affect our future business plans, prospects, results of operations and financial condition. In addition, any arrangement with a strategic partner may require us to issue a material amount of equity securities to the partner or commit significant financial resources to fund our product development and commercialization efforts in exchange for their assistance or the contribution to us of intellectual property. Any such issuance of equity securities would reduce the percentage ownership of our then current shareholders, which would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We will rely on our partners to develop and provide components for our Mobion® fuel cell systems. If our partners do not meet our quality, quantity, reliability or schedule requirements, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We depend on third parties to supply many of the components of our Mobion® fuel cell systems. A supplier's failure to develop and supply components in a timely manner, or to develop or supply components that meet our quality, quantity or cost requirements, or our inability to obtain substitute sources of these components on a timely basis or on terms acceptable to us, would harm our ability to manufacture our fuel cell systems. In addition, to the extent that our supply partners use technology or manufacturing processes that are proprietary, we may be unable to obtain comparable components from alternative sources. Failure to do so will have a material adverse effect on our business plan, prospects, results of operations and financial condition.

Platinum and ruthenium are key materials in our micro fuel cells.

Platinum and ruthenium are scarce natural resources and we are depending upon a sufficient supply of these commodities. While we do not anticipate significant near or long-term shortages in the supply of platinum or ruthenium, any such shortages would adversely affect our ability to produce commercially viable fuel cell systems or significantly raise the cost of producing our fuel cell systems.

Our inability to deliver a commercially viable Mobion® fuel cell on time, or at all, will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

There may be technical or engineering challenges we have not anticipated, issues of reliability for our device, an inability for our device to be integrated into existing electronic devices, difficulties in obtaining materials or components, or problems with manufacturing or distribution, and many other problems that we have not, and perhaps could not anticipate. All of these issues could delay or prohibit further releases of additional Mobion® fuel cell products, which would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Failure to achieve future product development and the timing associated with entry into the military, industrial or consumer market or commercialization milestones will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We have established aggressive product development and commercialization milestones and dates for achieving development goals related to technology and design improvements. We use these milestones to assess our progress towards developing commercially viable fuel cell systems. Delays in our product development will likely have a material impact on our commercialization schedule. If we experience delays in meeting our development goals or if our micro fuel cell systems exhibit technical defects or if we are unable to meet cost, performance or manufacturing goals, including power output, useful life and reliability, our commercialization schedule will be delayed. In this event, potential purchasers of our initial commercial systems may choose alternative technologies and any delays could allow potential competitors to gain market advantages. We cannot assure that we will successfully achieve our milestones in the future and the failure to achieve such milestones would have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Our inability or failure to manage change effectively may have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We continue to undergo rapid change in the scope and breadth of our operations as we advance the development of our micro fuel cell products. Such rapid change is likely to place a significant strain on our senior management team and other resources. We will

be required to make significant investments in our engineering, logistics, financial and management information systems and to motivate and effectively manage our employees. Our business plans, prospects, results of operations and financial condition could be harmed if we encounter difficulties in effectively managing the budgeting, forecasting and other process control issues presented by such a rapid change.

Our share price could be subject to extreme price fluctuations, and shareholders could have difficulty trading shares.

The markets for high technology companies in particular have been volatile, and the market price of our common stock, which is traded on the Nasdaq Global Market under the symbol "MKTY," has been and may continue to be subject to significant fluctuations. Fluctuations could be in response to operating results, announcements of technological innovations or new products by us, or by our competitors, patent or proprietary rights developments, and market conditions for high technology stocks in general. In addition, the stock market in recent years has experienced extreme price and volume fluctuations that sometimes have been unrelated or disproportionate to the operating performance of individual companies. These market fluctuations, as well as general economic conditions, may adversely affect the market price of our common stock and the ability of shareholders to dispose of our common stock.

The loss of key employees may have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Our success will depend, in large part, upon our ability to attract, motivate and retain highly qualified scientists and engineers, as well as highly skilled and experienced management, sales and technical personnel. Competition for these personnel is intense and there can be no assurance that we will be successful in attracting, motivating or retaining key personnel. Our success depends, to a significant extent, upon a number of key employees, including members of senior management. The loss of the services of one or more of these senior executives or key employees, or the inability to continue to attract qualified personnel, could delay product development cycles or otherwise harm our business and could have a material adverse effect on our business plans, prospects, results of operations and financial condition.

We have incurred losses and anticipate continued losses. If we do not become profitable and sustain profitability, it will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

As of December 31, 2006, we had an accumulated deficit of \$95,385 thousand. For the year ended December 31, 2006, our net loss was \$13,667 thousand, which includes a net gain of \$4,289 thousand from sales of securities available for sale and an operating loss of \$17,737 thousand. We expect to continue incurring net losses from operations until we can produce sufficient revenues to cover costs. In order to achieve profitability, we must successfully achieve all or some combination of the following:

- develop new products for existing markets;
- sell these products to existing and new customers;
- increase gross margins through higher volumes and manufacturing efficiencies;
- control operating expenses; and
- develop and manage distribution capability.

Furthermore, we anticipate that we will continue to incur losses until we can produce and sell our fuel cell systems on a large-scale and cost-effective basis. Even if we do achieve profitability, we may be unable to sustain or increase our profitability in the future. Failure to do so will have a material adverse effect on our business plans, prospects, results of operations and financial condition.

Our resources available to fund operations may fluctuate as the value of Plug Power's share price fluctuates, and could result in our requiring additional funding sooner than anticipated.

A primary asset of the Company is the shares of Plug Power common stock it owns. As of December 31, 2006, the Company owned 2,589,936 shares of common stock in Plug Power, which is a publicly traded company. The market price of the Plug Power common stock may fluctuate due to market conditions and other conditions over which the Company has 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.

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Our alliance agreement with Samsung Electronics Co., Ltd. ("Samsung") is subject to early termination if we cannot supply to them acceptable prototypes.

The agreement between MTI Micro and Samsung dated May 16, 2006 contains one remaining prototype delivery date - April 30, 2007. The remaining prototype delivery has explicit technological specifications that have not been accomplished previously by MTI Micro. If MTI Micro experiences delays in its prototype deliveries, or if MTI Micro is unable to produce a prototype to meet these specifications, Samsung has the option to cancel the agreement and MTI Micro would not receive any further payments under this agreement. Termination of MTI Micro's agreement with Samsung would have a material adverse effect on MTI Micro's and the Company's business plans, prospects, results of operations and financial condition.

MTI Instruments sales revenue growth may not be achieved.

There is no assurance that MTI Instruments will continue to achieve its sales targets. A number of factors that could impact MTI Instruments achieving its sales goals include, but are not limited to:

- Slow down or cancellation of sales of PBS 4100 units to the military market, due to potential redeployment of government funding;
- Expansion of sales in new territories may not occur due to lack of brand recognition, competition, or market saturation;
- Launch of new products may not occur due to an aggressive internal development timeline, uncertainty in new technology development, and established competing technology.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

The Company leases office, manufacturing and research and development space in the following locations:

<u>Location</u>	<u>Segment</u>	<u>Primary Use</u>	Approximate Number of <u>Square Feet</u>	<u>Lease Expiration</u>
Albany, NY	Test and Measurement  Instrumentation	Manufacturing, office and sales	20,700	2009
Albany, NY	New Energy and Other	Corporate headquarters, office and  research and development	23,500	2007

In management's opinion, the facilities are generally well maintained and adequate for our current needs and for expansion, if required. Management further believes that a lease renewal on reasonable terms for its New Energy and Other segment may be achieved.

### Item 3: Legal Proceedings

At any point in time, the Company and its subsidiaries may be involved in various lawsuits or other legal proceedings. Such lawsuits could arise from the sale of products or services or from other matters relating to its regular business activities, compliance with various governmental regulations and requirements, or other transactions or circumstances. The Company does not believe there are any such proceedings presently pending which could have a material adverse effect on the Company's financial condition.

#### Lawrence

On September 9, 1998, Barbara Lawrence, the Lawrence Group, Inc. ("Lawrence") and certain other Lawrence-related entities ("Plaintiffs") initially filed suit in the Bankruptcy Court and the United States District Court for the Northern District of New York, which were subsequently consolidated in the District Court, against First Albany Corporation ("FAC"), the Company, Dale Church, Edward Dohring, Beno Sternlicht, Alan Goldberg and George McNamee (Church, Dohring, Sternlicht, Goldberg and McNamee are former Directors of the Company), Marty Mastroianni (former President and Chief Operating Officer of the Company), and thirty-three other individuals ("Defendants") who purchased a total of 820,909 shares (2,462,727 shares post split) of the Company's stock from the Plaintiffs. The case concerns the Defendants' 1997 purchase of the Company's common stock from the Plaintiffs at the price of \$2.25 per share (\$0.75 per share post split). FAC acted as Placement Agent for the Defendants in the negotiation and sale of the shares and in proceedings before the Bankruptcy Court for the Northern District of New York, which approved the sale in September 1997.

Plaintiffs claim that the Defendants failed to disclose material inside information concerning Plug Power, LLC to the Plaintiffs and therefore the \$2.25 per share (\$0.75 per share post split) purchase price was unfair. Plaintiffs are seeking damages of \$5.0 million plus punitive damages and costs. In April 1999, Defendants filed a motion to dismiss the amended complaint, which was denied by the Bankruptcy Court. On appeal in October 2000, Plaintiffs' cause of



action was dismissed by the United States District Court for the Northern District of New York. In November 2000, Plaintiffs filed an appeal of that dismissal with the United States Court of Appeals for the Second Circuit. In June 2002, the Second Circuit Court of Appeals reversed the District Court decision and remanded the case for further consideration of the Plaintiffs' claims as motions to modify the Bankruptcy Court sale order. The Plaintiffs' claims have now been referred back to Bankruptcy Court for such consideration. In September 2003, the Bankruptcy Court issued an order permitting Plaintiffs to conduct limited discovery concerning how FAC formed an opinion about the Company's stock up until the date the Stock Purchase Agreement was executed. Discovery is ongoing.

The Company believes the claims have no merit and intends to defend them vigorously. The Company cannot predict the outcome of the claims nor reasonably estimate a range of possible loss given the current status of the litigation. Accordingly, no amounts have been reserved for this matter.

#### Item 4: Submission of Matters to a Vote of Security Holders

There were no matters submitted to a vote of the registrant's security holders during the fourth quarter of fiscal 2006.

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PART II

Item 5: Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Price Range of Common Stock

MTI stock is traded on the Nasdaq Global Market under the symbol MKTY. The following table sets forth high and low closing reported sale prices for our common stock as reported by the Nasdaq Global Market for the periods indicated:

Year Ended December 31,	<u>2006</u>		<u>2005</u>	
	<u>High</u>	<u>Low</u>	<u>High</u>	<u>Low</u>
First Quarter	\$ 3.90	\$ 2.75	\$ 6.30	\$ 4.27
Second Quarter	4.94	2.06	4.58	3.09
Third Quarter	2.45	1.30	4.21	2.25
Fourth Quarter	2.92	1.55	4.00	2.55

#### Performance Graph

The information included under the heading "Performance Graph" in this Item 5 of this Annual Report on Form 10-K is "furnished" and not "filed" and shall not be deemed to be "soliciting material" or subject to Regulation 14A or 14C, nor shall it be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that we specifically incorporate it by reference into any such filing.

Below is a line graph comparing the percentage change in the cumulative total return on the Company's common stock for the 63 month period ended December 31, 2006, based on the market price of the Company's common stock, with the total return of companies included within the NASDAQ Composite Index, and companies considered peers within the fuel cell industry (the "Peer Group"). The line graph also compares the total return of the Company's common stock with the total return of companies included within the Standard & Poor's ("S&P") 500 Index and companies included within the S&P Information Technology Index (collectively, the "Comparable Indices"). The calculation of total return assumes a \$100 investment in the Company's common stock and the Comparable Indices as of October 1, 2001, including reinvestment of all dividends. The beginning measurement point was established by the market close on October 1, 2001, the first day of the Company's three month transition period when it changed its fiscal year end from September 30 to December 31.

In future years, the Company will discontinue using the S&P 500 Index and the S&P Information Technology Index in its Comparable Indices since the Company considers the use of the NASDAQ Composite Index and a Peer Group to be better comparisons for the Company, as its common stock is listed on the NASDAQ Global Market and the fuel cell industry has matured to the point that a Peer Group of publicly traded companies is meaningful. Companies within the Peer Group consist of Ballard Power Systems (Nasdaq: "BLDP"), Plug Power Incorporated (Nasdaq: "PLUG"), Medis Technologies Limited (Nasdaq: "MDTL"), FuelCell Energy Incorporated (Nasdaq: "FCEL") and Hydrogenics Corporation (Nasdaq: "HYGS"). Total return for the Peer Group was calculated on a market value capitalization weighted average basis at each data point in the graph.

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As of February 28, 2007, the Company had approximately 550 holders of our common stock. However, management believes that a significant number of shares are held by brokers under a "nominee name" and that the number of beneficial shareholders of our common stock is approximately 15,400.

### Dividends

The payment of dividends is within the discretion of the Company's Board of Directors and will depend, among other factors, on earnings, capital requirements, and the operating and financial condition of the Company. The Company has never paid and does not anticipate paying dividends in the foreseeable future.

### Recent Sales of Unregistered Securities

None.

### Issuer Purchases of Equity Securities

None.

### Item 6: Selected Financial Data

The following tables set forth selected financial data and other operating information of the Company. The selected statement of operations and balance sheet data for 2006, 2005, 2004, 2003 and 2002 as set forth below are derived from the audited financial statements of the Company. The information is only a summary and should be read in conjunction with the Company's audited financial statements and related notes and other financial information included herein and "Management's Discussion and Analysis of Financial Condition and Results of Operations."

(In thousands, except per share data)	Year	Year	Year	Year	Year
	Ended	Ended	Ended	Ended	Ended
	Dec. 31,	Dec. 31,	Dec. 31,	Dec. 31,	Dec. 31,
	<u>2006</u>	<u>2005</u>	<u>2004</u>	<u>2003</u>	<u>2002</u>
Statement of Operations Data					
Product revenue	\$ 7,667	\$ 6,012	\$ 7,530	\$ 5,547	\$ 5,362
Funded research and development revenue	489	1,829	1,040	2,311	1,573
Gain (loss) on derivatives	182	(10,407)	614	(6)	(188)
Net gain (loss) on sale of securities available for sale	4,289	10,125	3,626	7,483	(444)
Net gain on sale of holdings	-	-	-	-	6,369
Gain on exchange of securities	-	-	-	-	8,006
(Loss) income from continuing operations before income					

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taxes, equity in holdings' losses and minority interests	(12,980)	(14,949)	(9,121)	(1,731)	906
Income tax (expense) benefit	(1,895)	(1,587)	3,564	669	(367)
Minority interests in losses of consolidated subsidiary	1,208	1,442	1,366	490	418
Loss from continuing operations	(13,667)	(15,094)	(4,191)	(572)	(7,186)
Income from discontinued operations, net of taxes	-	-	-	13	225
Net (loss) income	\$ (13,667)	\$ (15,094)	\$ (4,191)	\$ (559)	\$ (6,961)
Basic and Diluted (Loss) Earnings Per Share					
Loss from continuing operations	\$ (0.43)	\$ (0.49)	\$ (0.14)	\$ (0.02)	\$ (0.21)
Income from discontinued operations	=	=	=	=	<u>0.01</u>
(Loss) earnings per share	<u>\$ (0.43)</u>	<u>\$ (0.49)</u>	<u>\$ (0.14)</u>	<u>\$ (0.02)</u>	<u>\$ (0.20)</u>
Balance Sheet Data (as of period end):					
Working capital	\$ 20,820	\$ 24,465	\$ 34,812	\$ 42,426	\$ 36,681
Securities available for sale	10,075	18,947	17,678	44,031	37,332
Securities available for sale - restricted	-	-	16,497	-	-
Total assets	33,811	41,267	66,830	65,838	52,384
Total long-term obligations	3,664	-	1,149	24	24
Total shareholders' equity	22,871	32,916	55,584	48,266	40,748

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with our accompanying Financial Statements and Notes thereto included within this Annual Report on Form 10-K. In addition to historical information, this Annual Report on Form 10-K and the following discussion contain statements that are not historical facts and are considered forward-looking within the meaning of the Private Securities Litigation Act of 1995. Certain statements made in this document that state Management's intentions, hopes, goals, beliefs, expectations, projections, plans, anticipation, outlook or predictions of the future are forward looking statements. Such statements include, among others, estimates of cash needs and sources; our ability to meet cash needs in the future; MTI Micro's plans under its strategic alliance

agreement with its fuel refill partner and its strategic alliance agreement with its consumer OEM; future prospects and applications for fuel cell systems; MTI's, MTI Micro's and MTI Instruments' future business prospects, technology and performance; the market potential for and progress MTI Micro is making in developing its Mobion fuel cells; the significance of any contracts, grants, awards, or other recognition that MTI Micro may receive; the timing or success of market entry, in either the vertical or horizontal markets by MTI Micro; MTI Micro's ability to meet its stated milestones on time, if at all; MTI, MTI Micro's and MTI Instruments' ability to increase or maintain sales into military and other governmental markets; the importance of any relationships we may have, and our ability to maintain those relationships going forward; MTI Micro's ability to produce products or prototypes consistent with any announced specifications or customer requirements, if at all; MTI Micro's ability to remain a leader in advancing codes and standards; and the importance of any patents or codes and standards. All forward-looking statements are made as of the date of this report, and MTI disclaims any duty to update such statements. It is important to note that the Company's actual results could differ materially from those projected in forward-looking statements. Factors that could cause the anticipated results not to occur include, among others, risks related to financing; uncertainties in development, manufacturing, competition and consumer demand for DMFCs; Gillette's ability to terminate its agreements with MTI Micro prior to commercialization of DMFCs; Samsung's ability to terminate its agreement with MTI Micro and other risk factors listed in Item 1A: Risk Factors.

## Overview

Mechanical Technology Incorporated ("MTI" or the "Company"), a New York corporation, was incorporated in 1961. MTI operates in two segments, the New Energy segment which is conducted through MTI MicroFuel Cells, Inc. ("MTI Micro"), a majority-owned subsidiary, and the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. ("MTI Instruments"), a wholly owned subsidiary.

At its MTI Micro subsidiary, the Company's Mobion® cord-free power packs are being developed to replace current lithium ion and similar rechargeable battery systems in many hand-held electronic devices for the consumer and military markets. Mobion® power packs are based on direct methanol fuel cell ("DMFC") technology which has been recognized as enabling technology for advanced portable power sources by industry analysts. As the need for advancements in portable power increases, MTI Micro is developing Mobion® cord-free rechargeable power pack technology as a superior solution for powering the multi-billion dollar portable electronics market.

At its MTI Instruments subsidiary, the Company continues to be a worldwide supplier of precision non-contact physical measurement solutions, condition-based monitoring systems, portable balancing equipment and semiconductor wafer inspection tools. MTI Instruments' products use a comprehensive array of technologies to solve complex real world applications in numerous industries including manufacturing, semiconductor, commercial/military aviation, automotive and data storage. The Company's products consist of electronic gauging instruments for position, displacement and vibration applications within the design, manufacturing/production, test and research markets; semiconductor products for wafer characterization of semi-insulating and semi-conducting wafers within the semiconductor industry; and engine balancing and vibration analysis systems for both military and commercial aircraft.

MTI also co-founded and retains a minority interest in Plug Power, Inc. ("Plug Power") (NASDAQ: PLUG), a developer of clean, reliable, on-site energy products.

Our cash requirements depend on numerous factors, including completion of our micro fuel cell product development activities, ability to commercialize our micro fuel cell systems, market acceptance of our micro fuel cell systems and other factors. We expect to pursue the expansion of our operations through internal growth and strategic partnerships.

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

(Dollars in thousands)	Years ended December 31,		
	<u>2006</u>	<u>2005</u>	<u>2004</u>
Unrestricted cash, cash equivalents and marketable securities	\$ 24,620	\$ 30,177	\$ 40,223
Working capital	20,820	24,465	34,812
Net loss	(13,667)	(15,094)	(4,191)
Net cash used in operating activities	(12,706)	(12,572)	(11,982)
Purchase of property, plant and equipment	(1,574)	(1,004)	(1,834)

From inception through December 31, 2006, the Company has incurred net losses of \$95,385 thousand and expects to incur losses as it continues micro fuel cell product development and commercialization programs. The Company expects that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, sales of securities available for sale as well as the operating results of MTI Instruments and MTI Micro.

#### Critical Accounting Policies and Significant Judgments and Estimates

The Company's discussion and analysis of its financial condition and results of operations is based upon the Company's consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America. Note 2 to the consolidated financial statements includes a summary of the Company's most significant accounting policies. The preparation of these financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of assets and liabilities. On an on-going basis, the Company evaluates its estimates and judgments, including those related to revenue recognition, inventories, securities available for sale, income taxes, share-based compensation and derivatives. Management bases its estimates on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions. Management reviews critical accounting estimates with the Audit Committee of the Company's Board of Directors.

The significant accounting policies that management believes are most critical to aid in fully understanding and evaluating our reported financial results include the following:

### Share-Based Payments

: We grant options to purchase our common stock and award restricted stock to our employees and directors under our equity incentive plans. The benefits provided under these plans are share-based payments subject to the provisions of revised Statement of Financial Accounting Standards ("SFAS") No. 123 ("FAS 123R"), *Share-Based Payment*, and Securities and Exchange Commission ("SEC") Staff Accounting Bulletin ("SAB") 107, *Share-Based Payments*. Effective January 1, 2006, we use the fair value method to apply the provisions of FAS 123R with the modified prospective application, which provides for certain changes to the method for valuing share-based compensation. The valuation provisions of FAS 123R apply to new awards and to awards that are outstanding on the effective date and subsequently modified. Under the modified prospective application, prior periods are not revised for comparative purposes. Share-based compensation expense recognized under FAS 123R for the year ended December 31, 2006 was \$2,406 thousand. At December 31, 2006, total unrecognized estimated compensation expense related to non-vested awards granted prior to that date was \$2,518 thousand, which is expected to be recognized over a weighted average period of 1.35 years.

Upon adoption of FAS 123R, we began estimating the value of share-based awards on the date of grant using a Black-Scholes option-pricing model ("Black-Scholes model"). Prior to the adoption of FAS 123R, the value of each share-based award was estimated on the date of grant using the Black-Scholes model for the pro forma information required to be disclosed under FAS 123. The determination of the fair value of share-based payment awards on the date of grant using an option-pricing model is affected by our stock price as well as assumptions regarding a number of complex and subjective variables. These variables include, but are not limited to, our expected stock price volatility over the term of the awards, actual and projected employee stock option exercise behaviors, risk-free interest rate and expected dividends.

If factors change and we employ different assumptions in the application of FAS 123R during future periods, the compensation expense that we record under FAS 123R may differ significantly from what we have recorded in the current period. Therefore, we believe it is important for investors to be aware of the high degree of subjectivity involved when using option-pricing models to estimate share-based compensation under FAS 123R. Option-pricing models were developed for use in estimating the value of traded options that have no vesting or hedging restrictions, are fully transferable and do not cause dilution. Because our share-based payments have characteristics significantly different from those of freely traded options, and because changes in the subjective input

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assumptions can materially affect our estimates of fair values, in our opinion, existing valuation models, including the Black-Scholes Option Pricing model, may not provide reliable measures of the fair values of our share-based compensation. Consequently, there is a risk that our estimates of the fair values of our share-based compensation awards on the grant dates may bear little resemblance to the intrinsic values realized upon the exercise, expiration, cancellation or forfeiture of those share-based payments in the future. Certain share-based payments, such as employee stock options, may expire worthless or otherwise result in zero intrinsic value as compared to the fair values originally estimated on the grant date and expensed in our financial statements. Alternatively, value may be realized from these instruments that are significantly in excess of the fair values originally estimated on the grant date and expensed in our financial statements. There is currently neither a market-based mechanism nor other practical application to verify the reliability and accuracy of the estimates stemming from these valuation models, nor a way to compare and adjust the estimates to actual values. Although the fair value of employee share-based awards is determined in accordance with FAS 123R and SAB 107 using a qualified option-pricing model, that value may not be indicative of the fair value observed in a willing buyer/willing seller market transaction. Estimates of share-based compensation expenses are significant to our financial statements, but these expenses are based on the aforementioned option valuation model and will never result in the payment of cash by us.

The guidance in FAS 123R and SAB 107 is still relatively new, and best practices are not well established. The application of these principles may be subject to further interpretation and refinement over time. There are significant



differences among valuation models, and there is a possibility that we will adopt different valuation models in the future. This may result in a lack of consistency in future periods and materially affect the fair value estimate of share-based payments. It may also result in a lack of comparability with other companies that use different models, methods and assumptions.

Theoretical valuation models and market-based methods are evolving and may result in lower or higher fair value estimates for share-based compensation. The timing, readiness, adoption, general acceptance, reliability and testing of these methods is uncertain. Sophisticated mathematical models may require voluminous historical information, modeling expertise, financial analyses, correlation analyses, integrated software and databases, consulting fees, customization and testing for adequacy of internal controls.

For purposes of estimating the fair value of stock options granted during the year ended December 31, 2006 using the Black-Scholes model, we used the historical volatility of our stock for the expected volatility assumption input to the Black-Scholes model, consistent with the guidance in FAS 123R and SAB 107. The risk-free interest rate is based on the risk-free zero-coupon rate for a period consistent with the expected option term at the time of grant. We do not currently pay nor do we anticipate paying dividends, but we are required to assume a dividend yield as an input to the Black-Scholes model. As such, we use a zero dividend rate. The expected option term is estimated using both historical term measures and projected termination estimates.

#### Revenue Recognition:

The Company recognizes revenue from development contracts based upon the relationship of actual costs to estimated costs to complete the contract. These types of contracts typically provide development services to achieve a specific scientific result relating to DMFC technology. Some of these contracts require the Company to contribute to the development effort. The customers for these contracts are both commercial customers and various state and federal government agencies. While government agencies are providing revenue, we do not expect the government to be a significant end user of the resulting products. Therefore, the Company does not reduce funded research and product development expense by the funding received. When it appears probable that estimated costs will exceed available funding on fixed price contracts, and the Company is not successful in securing additional funding, the Company records the estimated additional expense before it is incurred. The Company had a \$66 thousand accrual for contract losses for the year ended December 31, 2006.

The Company applies the guidance in SAB No. 104, *Revenue Recognition*, in the evaluation of commercially funded fuel cell research and prototype agreements in order to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments, and for milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. When revenue qualifies for recognition it will be recorded as funded research and development revenue. The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenues recognized are reclassified from unfunded research and product development to funded research and product development.

The Company also recognizes revenue from product sales in accordance with SAB No. 104. Product revenue is recognized when there is persuasive evidence of an arrangement, delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor, and the Company has determined that collection of a fixed fee is probable, all of which occur upon shipment of the product. If the product requires installation to be performed by the Company, all revenue related to the product is deferred and recognized upon the completion of the installation.

### Inventory:

Inventory is valued at the lower of cost or the current estimated market value of the inventory. We periodically review inventory quantities on hand and record a provision for excess and/or obsolete inventory based primarily on our estimated forecast of product demand, as well as based on historical usage. Demand and usage for products and materials can fluctuate significantly. A significant decrease in demand for our products could result in a short-term increase in the cost of inventory purchases and an increase of excess inventory quantities on hand. Therefore, although we make every effort to ensure the accuracy of our forecasts of future product demand, any significant unanticipated changes in demand could have a significant impact on the value of our inventory and our reported operating results.

### Income Taxes:

As part of the process of preparing our consolidated financial statements, the Company is required to estimate its income taxes in each of the jurisdictions in which it operates. This process involves the estimation of our actual current tax exposure together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. Included in this assessment is the determination of net operating loss carry forwards. These differences result in a net deferred tax asset. The Company must assess the likelihood that its deferred tax assets will be recovered from future taxable income and, to the extent that the Company believes that recovery is not likely, it must establish a valuation allowance.

Significant management judgment is required in determining our provision for income taxes, our deferred tax assets and liabilities and any valuation allowance recorded against our net deferred tax assets. We have recorded a valuation allowance due to uncertainties related to our ability to realize certain net deferred tax assets, primarily consisting of net operating losses being carried forward. In the event that actual results differ from these estimates or we adjust these estimates in future periods, we may need to adjust the recorded valuation allowance, which could materially impact our financial position and results of operations. The Company has recorded a full valuation allowance against its net deferred tax assets of \$18,815 thousand as of December 31, 2006. This valuation allowance is due to uncertainties related to our ability to realize certain of these assets. The valuation allowance is based on estimates of the recoverability of certain net operating losses. In the event actual results differ from these estimates or we adjust these estimates in future periods we may need to adjust our valuation allowance which could materially impact our financial position and results of operations.

### Derivative Instruments:

The Company has held or issued certain derivative instruments and embedded derivative instruments and records these derivatives and embedded derivative instruments separate from the host contract in accordance with SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*, as amended by SFAS No. 138, *Accounting for Certain Derivative Instruments and Certain Hedging Activities*. These standards require the Company to recognize all derivative instruments as either assets or liabilities on the statement of financial position and measure these instruments at fair value. Fair values are estimated using the Black-Scholes Option Pricing Model. Fair value estimates are subject to significant change between periods due to fluctuations of the variables used in the model.

## Discussion and Analysis of Results of Operations

### Results of Operations for the Year Ended December 31, 2006 Compared to December 31, 2005:

The following is management's discussion and analysis of certain significant factors, which have affected the Company's results of operations for the year ended December 31, 2006 compared to the year ended December 31, 2005.

### Product Revenue:

Product revenue in the Test and Measurement Instrumentation segment for 2006 increased by \$1,655 thousand, or 27.5%, to \$7,667 thousand. This performance is primarily the result of an increase of \$1,475 thousand, or 55.0%, in dimensional gauging sales, particularly direct capacitance sales through our Japanese distributor; increases in semiconductor sales of \$200 thousand, as eighteen manual, one automatic and one semi-automated metrology tool systems were sold during the year, compared to seven manual, one semi-automated and four OEM systems during 2005; commercial aviation equipment sales increases of \$539 thousand; and partially offset by lower revenue from the U.S. Air Force of \$611 thousand due to fewer purchases of new equipment and reduced activity under the existing repair contract.

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In the Test and Measurement Instrumentation segment, in 2006 the U.S. Air Force accounted for \$1,774 thousand, or 23.1%, of product revenues; in 2005, the U.S. Air Force accounted for \$2,385 thousand, or 39.7%, of product revenues. During 2006, Koyo Precision, our Japanese distributor, represented \$1,757 thousand or 22.9% of segment revenue.

Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)		Revenues	Revenues	Revenues	Total Contract
					Orders
		Year Ended	Year Ended	Contract to Date	Received to Date
<u>Contract</u>	<u>Expiration</u>	<u>Dec. 31, 2006</u>	<u>Dec. 31, 2005</u>	<u>Dec. 31, 2006</u>	<u>Dec. 31, 2006</u>
\$8,800 thousand Retrofit and Maintenance of PBS 4100's	06/20/2008	\$ 1,417	\$ 1,552	\$ 6,627	\$ 6,637

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Funded Research and Development Revenue:

Funded research and development revenue in the New Energy segment for 2006 decreased by \$1,340 thousand, or 73.3%, to \$489 thousand. The decrease in revenue is primarily the result of the suspension of previously approved DOE funding for 2006 and the completion of other programs which were active in 2005, including programs with the New York State Energy Research and Development Authority ("NYSERDA"), the Army Research Labs ("ARL"), the Marine Corps, the Cabot Superior Micro Powders ("CSMP") subcontract with the National Institute of Standards and Technology ("NIST"), and Harris. This decrease was partially offset by revenue recognized from the Samsung Alliance Agreement totaling \$427 thousand.

Information regarding government and private company development contracts included in funded research and development revenue is as follows:

(Dollars in thousands)	Contract		Revenues	Percentage	Revenues	Percentage	Revenues
			Year Ended	of	Year Ended	of	Contract to Date
<u>Contract</u>	<u>Type</u>	<u>Expiration</u>	<u>Dec. 31, 2006</u>	<u>2006 Total</u>	<u>Dec. 31, 2005</u>	<u>2005 Total</u>	<u>Dec. 31, 2006</u>
		(5)					
\$3,000 thousand DOE <sup>(7)</sup>	B	07/31/07	\$ 62	12.7%	\$ 930	50.8%	\$ 1,171
\$1,250 thousand NYSERDA <sup>(2)</sup>	B	06/30/06	-	-	\$ 329	18.0	1,135

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\$1,000 thousand Samsung <sup>(6)</sup>	C	07/31/07	427	87.3	\$ -	-	427
\$418 thousand SAFT <sup>(1)</sup>	A	12/31/06	-	-	\$ -	-	-
\$250 thousand ARL	A	09/30/05	-	-	\$ 250	13.7	250
\$210 thousand NIST <sup>(3)</sup>	A	06/30/05	-	-	\$ 100	5.5	210
\$150 thousand Harris <sup>(4)</sup>	A	06/25/04	-	-	\$ 150	8.2	150
\$70 thousand Marine Corps	A	03/31/05	=	=	<u>\$70</u>	<u>3.8</u>	<u>70</u>
Total funded research and development revenue			<u>\$ 489</u>	<u>100.0</u>	<u>\$ 1,829</u>	<u>100.0</u>	<u>\$ 3,413</u>
				%		%	

(1)

This is a subcontract with SAFT America, Inc. ("SAFT") under the U.S. Army CECOM contract. The purchase order received in connection with this subcontract was revised on November 14, 2006 eliminating Milestone 4. As a result, the contract value was reduced from \$470 thousand to \$418 thousand and the expiration date was extended from September 30 to December 31, 2006.

(2)

Total contract value is \$1,250 thousand consisting of four Phases: Phase I for \$500 thousand was from March 12, 2002 through September 30, 2003; Phase II for \$200 thousand was from October 28, 2003 through October 31, 2004; Phase III for \$348 thousand was from August 23, 2004 through August 31, 2005; and Phase IV for \$202 thousand which commenced on December 14, 2004 and expired on June 30, 2006. Phases I, II and III have been completed. Phase IV expired before it was completed and the Company is working to reinstate this phase.

(3)

This is a subcontract with CSMP under NIST and includes the original contract for \$200 thousand and a contract amendment for \$10 thousand.

(4)

This contract includes the original contract for \$200 thousand, an amendment for \$50 thousand and a 2005 amendment reducing the contract by \$100 thousand.

(5)

Dates represent expiration of contract, not date of final billing.

(6)

This contract includes one up-front payment of \$750 thousand and two milestone payments totaling \$250 thousand for the delivery of acceptable prototypes.

(7)

DOE funding for this contract was suspended in 2006. It is not clear when and if funding will continue on this contract. If additional funding is made available for this contract, the Company expects to request a contract modification and expiration extension.

Contract Type A - Fixed Price Contract.

Contract Type B - Cost Shared Contract.

Contract Type C - Research and Prototype Contract.

Cost of Product Revenue:

Cost of product revenue in the Test and Measurement Instrumentation segment for the year ended December 31, 2006 increased by \$519 thousand, or 21.8%, to \$2,900 thousand. This increase coincides with the higher sales volume for 2006 compared to 2005.

Gross profit as a percentage of product revenue increased by 1.8% to 62.2% for the year ended December 31, 2006. The improvement in gross margin during 2006 is primarily due to a five point rise in average margins on capacitance product sales due to higher sales volume and improved pricing strategies.

Funded Research and Product Development Expenses:

New energy segment expenses decreased by \$2,403 thousand, or 67.6%, to \$1,152 thousand for the year ended December 31, 2006. The decreased costs were attributable to active contracts in 2005 which are no longer active in 2006. For the year ended December 31, 2006, MTI Micro had active contracts with Samsung, DOE and SAFT while in 2005, active contracts were with DOE, NYSERDA, SAFT, NIST, ARL and the Marine Corps.

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Unfunded Research and Product Development Expenses:

Unfunded research and product development expenses increased by \$5,653 thousand, or 92.4%, to \$11,769 thousand for the year ended December 31, 2006 in comparison to 2005. This increase reflects a \$5,445 thousand increase in the New Energy segment related to increased internal costs for the development of micro fuel cell systems and costs in connection with developing prototypes and product intent prototypes, including a \$512 thousand non-cash charge for share-based compensation resulting from the adoption of SFAS No. 123R, which requires that the fair value of share-based compensation be expensed. This increase also includes a \$208 thousand increase in product development expenses in the Test and Measurement Instrumentation segment for projects related to the development of a glass thickness gauge, improvements to the portable engine vibration and balancing system and updated industrial balancing software.

Selling, General and Administrative Expenses:

Selling, general and administrative expenses decreased by \$815 thousand, or 7.5%, to \$10,072 thousand for the year ended December 31, 2006 in comparison to the year ended December 31, 2005. This decrease is primarily the result of the following changes: an \$892 thousand increase in non-cash equity compensation charges resulting from the adoption of SFAS No. 123R, which requires that the fair value of share-based compensation be expensed; a \$1,113 thousand decrease in salaries and engineering management costs, due in part, to an increase in costs directly charged to research and product development and the elimination of the Government Systems group during the second quarter of 2005; a \$640 thousand decrease related to increases in liquidations to unfunded research and development costs, which is a result of the Company charging more time to internal development projects for low power and high power technology platform developments, the development of prototypes for Samsung and the development of the Mobion®30M product; a \$259 thousand decrease in LANL license fees due to an amendment of the license agreement, which resulted in reduced minimum annual license payments; a \$152 thousand decrease in depreciation costs primarily related to the renewal of the lease on the Company's main office; a \$104 thousand increase in commission costs at MTI Instruments; a \$131 thousand increase in incentive compensation primarily related to new executive employment agreements; a \$261 thousand increase in marketing costs as MTI Micro raised their emphasis on marketing and business development while MTI Instruments underwent a major rebranding campaign during 2006; and a \$39 thousand decrease in other expenses, net.

Operating Loss:

Operating loss for the year ended December 31, 2006 in comparison to the year ended December 31, 2005 increased by \$2,639 thousand to \$17,737 thousand, a 17.5% increase, due to the factors noted above.

Gain on Sale of Securities Available for Sale:

Results for the year ended December 31, 2006 included a \$4,289 thousand gain on sale of securities available for sale compared to a \$10,125 thousand gain for 2005. During the year ended December 31, 2006, the Company sold 1,103,500 shares of Plug Power common stock at a weighted average price of \$5.66 per share, with gross proceeds to the Company of \$6,249 thousand.

On June 24, 2005, Fletcher notified the Company of its election to exercise in full its right to purchase from the Company a quantity of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from the Company at a price of \$0.7226 per share, with proceeds to the Company of \$1,301 thousand. In connection with this exercise, the Company recognized a loss on this embedded derivative immediately prior to exercise of \$7,173 thousand and a gain on the sale of Plug Power common shares of \$9,635 thousand.

Gain (loss) on Derivatives:

The Company recorded a gain on derivative accounting of \$182 thousand for the year ended December 31, 2006 and a loss of \$10,407 thousand on derivative accounting for the year ended December 31, 2005. The 2006 gain is the result of derivative treatment of the freestanding warrants issued in conjunction with the Company's December 2006 capital raise, while the 2005 result relates to an embedded derivative for the purchase of Plug Power common stock, which was issued as part of the 2004 private placement transaction. The warrant derivative was valued using the Black Scholes pricing model, as was the embedded derivative prior to its exercise on June 24, 2005. Upon exercise, the embedded derivative was valued at its intrinsic value.

Income Tax (Expense) Benefit:

The income tax expense rate for the year ended December 31, 2006 was 15%, while the income tax expense rate for the year ended December 31, 2005 was 11%. These tax rates are primarily due to losses generated by operations, changes in the valuation allowance and disproportionate effects of reclassification of gains on Plug Power security sales included in net income.

The valuation allowance at December 31, 2006 was \$18,815 thousand and at December 31, 2005 was \$10,923 thousand. The Company determined that it was more likely than not that the ultimate recognition of certain deferred tax assets would not be realized.

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Results of Operations for the Year Ended December 31, 2005 Compared to December 31, 2004:

The following is management's discussion and analysis of certain significant factors, which have affected the Company's results of operations for the year ended December 31, 2005 compared to the year ended December 31, 2004.

Product Revenue:

Product revenue in the Test and Measurement Instrumentation segment for 2005 decreased by \$1,518 thousand, or 20.2%, to \$6,012 thousand. This decrease is primarily the result of decreased sales to aviation customers of \$1,014 thousand reflecting the September 2004 expiration of a U.S. Air Force contract which accounted for \$1,447 thousand of product revenue in 2004; decreases of \$798 thousand in semiconductor product sales reflecting the shipment of seven manual units, one semi-automated unit and four OEM machines during 2005 as compared to twelve manual units, five semi-automated units, five OEM machines and two AutoScan units for the same period in 2004; partially offset by increases in sales to general gauging customers of \$294 thousand related to increases in capacitance product sales and an increase in business generated by the Company's Japanese distributor.

In the Test and Measurement Instrumentation segment, in 2005 the U.S. Air Force accounted for \$2,385 thousand, or 39.7%, of product revenues; in 2004, the U.S. Air Force accounted for \$3,508 thousand, or 46.6%, of product revenues.

Information regarding government contracts included in product revenue is as follows:

(Dollars in thousands)	Revenues	Revenues	Revenues	Total Contract Orders
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<u>Contract</u>	<u>Expiration</u>	Year	Year	Contract to	Received to
		Ended	Ended	Date	Date
		<u>Dec. 31,</u>	<u>Dec. 31,</u>	<u>Dec. 31,</u>	<u>Dec. 31, 2005</u>
		<u>2005</u>	<u>2004</u>	<u>2005</u>	
\$8,800 thousand Retrofit and Maintenance of PBS 4100's	06/20/2008	\$ 1,552	\$ 1,918	\$ 5,210	\$ 5,262
\$3,100 thousand PBS units and Accessory Kits	09/30/2004	\$ -	\$ 1,447	\$ 2,469	\$ 2,469

Funded Research and Development Revenue:

Funded research and development revenue in the New Energy segment for 2005 increased by \$789 thousand to \$1,829 thousand, a 75.9% increase. This increase is the result of increases of \$751 thousand from the U.S. Department of Energy ("DOE"), \$250 thousand from the U.S. Army, \$224 thousand from the New York State Energy Research and Development Authority ("NYSERDA"), \$150 thousand from the Harris Corporation ("Harris"), \$70 thousand from the U.S. Marine Corps partially offset by decreases from the National Institute of Standards and Technology ("NIST") contract's completion in 2004 when it contributed \$446 thousand, the Army Research Laboratories contract's completion in 2004 when it contributed \$200 thousand, and a \$10 thousand decrease from the Cabot Superior Micro Powders ("CSMP") NIST subcontract.

Information regarding government contracts included in funded research and development revenue is as follows:

(Dollars in thousands)	Revenues		Percentage	Revenues		Percentage	Revenues
	Contract	Year Ended	of	Year Ended	of	Contract to Date	
<u>Contract</u>	<u>Type</u>	<u>Expiration</u>	<u>Dec. 31,</u>	<u>2005 Total</u>	<u>Dec. 31,</u>	<u>2004 Total</u>	<u>Dec. 31,</u>
		(6)	<u>2005</u>		<u>2004</u>		<u>2005</u>
\$3,000 thousand DOE	B	07/31/07	\$ 930	50.8%	\$ 179	17.2%	\$ 1,109
\$470 thousand SAFT <sup>(1)</sup>	A	09/30/06	\$ -	-	\$ -	-	\$ -
\$1,250 thousand NYSERDA <sup>(2)</sup>	B	06/30/06	\$ 329	18.0	\$ 105	10.1	\$ 1,135
\$249.8 thousand Army	A	09/30/05	\$ 250	13.7	\$ -	-	\$ 250
\$69.9 thousand Marine	A	03/31/05	\$ 70	3.8	\$ -	-	\$ 70
	A	06/30/05	\$ 100	5.5	\$ 110	10.6	\$ 210



\$210 thousand  
NIST (3)

\$150 thousand Harris(4)	A	06/25/04	\$ 150	8.2	\$ -	-	\$ 150
\$200 thousand ARL	A	04/30/04	\$ -	-	\$ 200	19.2	\$ 200
\$4,600 thousand NIST (5)	B	09/30/04	\$-	=	\$ <u>446</u>	<u>42.9</u>	\$ 3,342
Total funded research and development revenue			\$ <u>1,829</u>	<u>100.0</u>	\$ <u>1,040</u>	<u>100.0</u>	
				%		%	

(1)

This is a subcontract with SAFT America, Inc. ("SAFT") under the U.S. Army CECOM.

(2)

Total contract value is \$1,250 thousand consisting of four Phases: Phase I for \$500 thousand was from 3/12/02 thru 9/30/03; Phase II for \$200 thousand was from 10/28/03 with a completion date of 10/31/04; Phase III for \$348 thousand was from 8/23/04 through 8/31/05; and Phase IV for \$202 thousand which commenced on 12/14/04 and expires on 6/30/06. Phases I and II have been completed and the final report for Phase III has been accepted. Retainage will be billed upon acceptance of final report incorporating all completed phases of the contract.

(3)

This is a subcontract with CSMP under NIST and includes the original contract for \$200 thousand and a contract amendment for \$10 thousand.

(4)

This contract includes the original contract for \$200 thousand, an amendment for \$50 thousand and a 2005 amendment reducing the contract by \$100 thousand.

(5)

This contract was a joint venture with DuPont. DuPont's share of the contract revenue was \$1,300 thousand.

(6)

Dates represent expiration of contract, not date of final billing.

Contract Type A - Fixed Price Contract.

Contract Type B - Cost Shared Contract.

Cost of Product Revenue:

Cost of product revenue in the Test and Measurement Instrumentation segment for the year ended December 31, 2005 decreased by \$496 thousand, or 17.2%, to \$2,381 thousand. This decrease coincides with the lower sales volume for 2005 compared to the same period in 2004, which included lower aviation and semiconductor sales partially offset by increases in general gauging sales.

Gross profit as a percentage of product revenue decreased by 1.4% to 60.4% for the year ended December 31, 2005. This decrease is primarily attributable to the reduction in U.S. Air Force shipments.

Funded Research and Product Development Expenses:

Funded research and product development expenses in the New Energy segment decreased by \$485 thousand, or 12.0%, to \$3,555 thousand for the year ended December 31, 2005. The decreased costs were attributable to a change in contracts under development during 2005 and the completion of contracts during 2004. The majority of costs for 2005 were incurred under the DOE and NYSERDA contracts while the majority of costs for the comparable period were incurred under the NIST, ARL, Harris and U.S. Army contracts.

Unfunded Research and Product Development Expenses:

Unfunded research and product development expenses for the year ended December 31, 2005 decreased by \$2,804 thousand, or 31.4%, to \$6,116 thousand. This decrease reflects a \$2,780 thousand decrease for the New Energy segment reflecting decreased internal development costs for our micro fuel cell system for Intermecc since the Intermecc product was completed in the fourth quarter of 2004 and development costs in connection with Gillette, accounting for \$2,379 thousand of the decrease. Although overall research and development spending on the Gillette initiative had decreased from the prior year, this was a planned decrease due to an increased emphasis on product identification and marketing requirements during 2005. This decrease also includes a \$24 thousand decrease for the Test and Measurement Instrumentation segment. Test and Measurement Instrumentation product development in 2005 includes costs for improvements for the Microtrak II product, a high temperature capacitance gauge to serve the brake rotor market and the development of balancing software for the industrial market.

Selling, General and Administrative Expenses:

Selling, general and administrative expenses for the year ended December 31, 2005 totaled \$10,887 thousand, an increase of \$4,562 thousand, or 72.1%. These increases are primarily the result of the following changes: a \$995 thousand increase in non-cash stock-based compensation charges; a \$2,077 thousand increase in salary and benefits related, in some part, to an increase in engineering management costs not directly charged to research and product development, an increase in the number of employees working in government and military relations, strategic planning and business development as well as corporate support employees related to Sarbanes-Oxley compliance, an expanded sales organization at MTI Instruments and CEO and employee recruiting costs; increased costs of \$543 thousand related to consulting and other professional fees (including increases of approximately \$387 thousand of costs related to consultants for government relations, business development, finance and information technology, \$469 thousand of costs related to Sarbanes-Oxley compliance and the SEC review of the Company's filings, \$106 thousand

of legal costs related to SEC and general corporate matters, partially offset by decreases of \$300 thousand in advisory fees and \$148 thousand in legal fees related to the 2004 private placement amendment); increased depreciation expense of \$341 thousand due to an increase in capital expenditures; an increase of \$130 thousand in licensing and patent fees related to agreements with LANL; increased costs of \$437 thousand related to costs which were liquidated to research and development costs in the prior year; and a \$39 thousand increase in other expenses, net.

#### Operating Loss:

The year ended December 31, 2005 yielded an operating loss of \$15,098 thousand, an increase of \$1,506 thousand from 2004, or 11.1%. This change results primarily from increases in selling, general and administration expense as well as decreases in gross profits from product revenues in the Test and Measurement Instrumentation segment partially offset by increases in funded research and development revenue in the New Energy segment and decreases in funded and unfunded research and product development expenses.

#### Gain on Sale of Securities Available for Sale:

Results for the year ended December 31, 2005 included a \$10,125 thousand gain compared to the prior year ended December 31, 2004, gain of \$3,626 thousand. During 2005, the Company sold 100,000 shares of Plug Power common stock at a price of \$6.68 per share, with proceeds to the Company of \$668 thousand. On June 24, 2005, Fletcher notified the Company of its election to exercise in full its right to purchase from the Company certain shares of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from the Company at a price of \$0.7226 per share, with proceeds to the Company of \$1,301 thousand. This transaction closed on June 28, 2005 and, in connection with this exercise, the Company recognized a loss on the derivative immediately prior to exercise of \$7,173 thousand and a gain on the sale of Plug Power common shares of \$9,635 thousand.

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#### Gain (loss) on Derivatives:

The Company recorded a loss of \$10,407 thousand and a gain of \$614 thousand on derivative accounting for 2005 and 2004, respectively. These results relate to the embedded derivative for the purchase of Plug Power common stock, which is part of the 2004 private placement transaction, and the January 2004 expiration of the SatCon warrants. Changes in derivative fair values for the embedded derivative and the SatCon warrants are calculated using the Black-Scholes option pricing model or upon exercise the intrinsic value method.

#### Income Tax (Expense) Benefit:

The income tax expense rate for the year ended December 31, 2005 was 11% compared to the income tax benefit rate for the year ended December 31, 2004 of 39%. These tax rates are primarily due to losses generated by operations, changes in the valuation allowance and the projected annual effective tax rate adjustments.

The Company established a valuation allowance of \$10,923 thousand at December 31, 2005 compared to \$1,836 thousand at December 31, 2004. The Company determined that it was more likely than not that the ultimate recognition of certain deferred tax assets would not be realized.

Further, as a result of ownership changes in 1996, the availability of \$561 thousand of net operating loss carry-forwards to offset future taxable income will be limited pursuant to the Internal Revenue Code of 1986, as amended.

#### Liquidity and Capital Resources

The Company has incurred significant losses as it continues to fund MTI Micro's DMFC product development and commercialization programs. The Company expects that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, sales of securities available for sale, the operating results of MTI Instruments and MTI Micro, the availability of equity financing, including warrants issued in connection with the December 2006 capital raise, and the ability to attract government funding resources to offset research and development costs. As of December 31, 2006, the Company had an accumulated deficit of \$95,385 thousand. During the year ended December 31, 2006, the Company's results of operations resulted in a net loss of \$13,667 thousand and cash used in operating activities totaling \$12,706 thousand. This cash use in 2006 was funded primarily by cash and cash equivalents on hand as of December 31, 2005 of \$11,230 thousand and proceeds from the sales of securities available for sale of \$6,249 thousand. During December 2006, the Company sold common stock and warrants to purchase common stock for net proceeds after expenses of approximately \$10,200 thousand. The Company expects to continue to incur losses as it seeks to develop and commercialize Mobion<sup>®</sup> fuel cell systems and it expects to continue funding its operations from current cash and cash equivalents, the sales of securities available for sale, proceeds, if any, from equity financings, including warrants issued in connection with the December 2006 capital raise, and government funding. Subsequent to December 31, 2006, the Company made changes to its MTI Micro operations, see "Recent Developments" in Item 1: Business, New Energy Segment. The Company originally expected to spend approximately \$9,810 thousand on research and development of Mobion<sup>®</sup> fuel cells and \$1,450 thousand in research and development on MTI Instruments' products during 2007, however, subsequent to the suspension of the MTI Micro high power program, the Company now expects to spend approximately \$5,879 thousand on research and development of Mobion<sup>®</sup> fuel cells.

There can be no assurance that the Company will not require additional financing during 2007 or that any additional financing will be available to the Company on terms acceptable to the Company, if at all. The Company's original 2007 plan expected to use cash totaling approximately \$16,229 thousand to support operations and to use approximately \$675 thousand for capital expenditures. Subsequent to the decision to suspend MTI Micro's high power program, it now forecasts to use cash totaling approximately \$12,043 thousand to support operations and approximately \$524 thousand for capital expenditures. Capital expenditures will consist of purchases for furniture, computer equipment, software and manufacturing and laboratory equipment. Based on the Company's original 2007 plan, it believed it would have adequate resources to fund operations and capital expenditures through May of 2008, relying on current cash and cash equivalents, current cash flow and revenue projections, and the potential sale of securities available for sale based on December 31, 2006 market values. Subsequent to the decision to suspend MTI Micro's high power program, the Company now believes it will have adequate resources to fund operations and capital expenditures through September of 2008, taking into consideration the impact of the suspension of the high power program as well as recent market decline in the value of the Company's Plug Power stock holdings. Proceeds from the sale of securities available for sale are subject to fluctuations in the market value of Plug Power. The Company may also seek to supplement its resources through additional equity offerings, and additional government revenues could also provide more resources. Based upon current projections, the Company anticipates that it will have to raise additional equity capital to fund its long-term business plan.

As of December 31, 2006, the Company owned 2,589,936 shares of Plug Power common stock.

Potential future sales of Plug Power securities will generate taxable income or loss, which is different from book income or loss, due to the tax bases in these assets being significantly different from their book bases. Book and tax bases as of December 31, 2006 are as follows:

<u>Security</u>	<u>Shares Held</u>	<u>Average Book Cost Basis</u>	<u>Average Tax Basis</u>
Plug Power	2,589,936	\$ 1.78	\$ 0.96

Plug Power stock is currently traded on the Nasdaq Global Market and is therefore subject to stock market conditions. When acquired, these securities were unregistered. Our Plug Power securities are considered "restricted securities" as defined in Rule 144 and may not be sold in the future without registration under the Securities Act of 1933 ("Securities Act"), unless in compliance with an available exemption from it. While the Company's Plug Power shares of common stock remain "restricted securities," these shares are freely transferable in accordance with Rule 144(k) under the Securities Act since the Company and Plug Power are no longer affiliates and the Company has held the shares for more than two years.

Working capital was \$20,820 thousand at December 31, 2006, a \$3,645 thousand decrease from \$24,465 thousand at December 31, 2005. This decrease is primarily the result of the use of cash in operations and decreases in the market value of securities available for sale offset, by proceeds from sale of securities available for sale and net proceeds from the December 2006 capital raise.

At December 31, 2006, the Company's order backlog was \$220 thousand at MTI Instruments, compared to \$862 thousand at December 31, 2005.

Inventory and accounts receivable (from product revenues) turnover ratios and their changes for the last annual period are as follows for the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>Change</u>
Inventory	2.60	2.00	0.60
Accounts receivable (from product revenues)	7.41	8.94	(1.53)

The changes in the inventory and accounts receivable turnover ratios are the result of the volume and timing of sales. The Test and Measurement Instrumentation segment experienced a nearly 28% growth in revenue for the year ended December 31, 2006 as compared to the year ended December 31, 2005, with a corresponding inventory increase of only 15%.

Cash flow used by operating activities was \$12,706 thousand in 2006 compared with \$12,572 thousand in 2005. This cash use increase of \$134 thousand reflects net increases in cash expenditures to fund operations, partially offset by balance sheet changes, which reflect the timing of cash payments and receipts.

Capital expenditures were \$1,574 thousand in 2006, an increase of \$570 thousand from the prior year. Capital expenditures in 2006 included computer equipment, demonstration equipment, software, and manufacturing and laboratory equipment. Outstanding commitments for capital expenditures as of December 31, 2006 totaled \$45 thousand and include expenditures for laboratory and production equipment and computer equipment. The Company expects to finance these expenditures with current cash and cash equivalents, the sale of securities available for sale, equity financing and other sources, as appropriate and to the extent available.

During 2006, the Company sold 1,103,500 shares of Plug Power common stock with proceeds totaling \$6,249 thousand and gains totaling \$4,289 thousand. These proceeds reflect the Company's previously announced strategy to raise additional capital through the sale of Plug Power stock in order to fund its micro fuel cell operations. Taxes on the net gains are expected to be offset by the Company's operating losses. As of December 31, 2006, the Company estimates its remaining net operating loss carry forwards to be approximately \$50,529 thousand.

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## Contractual Obligations

Contractual obligations as of December 31, 2006, under agreements with non-cancelable terms are as follows:

	Payments Due by Period				
	<u>Total</u>	Less Than <u>1 Year</u>	1-3 <u>Years</u>	3-5 <u>Years</u>	More than <u>5 Years</u>
Contractual obligations:					
Operating leases	\$ 1,393	\$ 683	\$ 710	\$ -	\$ -
Purchase obligations	1,832	1,816	16	-	-
License obligations (A), (B), (C)	<u>1,005</u>	<u>25</u>	<u>80</u>	<u>200</u>	<u>700</u>
Total	\$ <u>4,230</u>	\$ <u>2,524</u>	\$ <u>806</u>	\$ <u>200</u>	\$ <u>700</u>

(A)

Once products are sold under the LANL license agreements, royalties will be based on 3% of the first \$50 million of net sales, 2% on net sales in excess of \$50 million but less than \$100 million and 1% on net sales in excess of \$100 million. License payments made in any year may be applied against royalties due and total annual fees in any year shall not exceed \$1 million. Any royalties due shall not exceed 2% of net sales.

(B)

Under the Strategic Alliance Agreement (the "Agreement") with Gillette, if MTI Micro sells fuel refills in the target market after its exclusivity obligations have expired, then MTI Micro will be required to pay Gillette royalties as defined in the Agreement. The Agreement is subject to confidential treatment as filed with the SEC.

(C)

Under the New York State Energy Research and Development Authority ("NYSERDA") contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may be reduced to reflect any New York State jobs created by MTI Micro.

#### Off-Balance Sheet Arrangements

Pursuant to a financing transaction entered into between the Company and certain investors on December 15, 2006, these investors have the right, but not the obligation, to purchase, in single or multiple purchases, up to an additional 3,027,778 shares of our common stock at any time beginning June 20, 2007 and expiring after December 19, 2011 at a price per share equal to \$2.27. These shares were issued from a shelf registration statement covering resale of such shares. At December 31, 2006, Capital Ventures International and Radcliffe SPC, Ltd. owned 2,488,514 and 2,116,291 shares, respectively, or 6.5% and 5.6%, respectively, of the Company's outstanding stock.

#### New Accounting Pronouncements

##### Effect of Recent Accounting Pronouncements

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In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ("SFAS No. 159"). SFAS No. 159 provides companies with an option to report selected financial assets and financial liabilities at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings at each subsequent reporting date. SFAS No. 159 is effective beginning January 1, 2008. We are currently reviewing the provisions of SFAS No. 159 to determine any impact for the Company.

In September 2006, the FASB issued SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)* ("SFAS No. 158"). Among other items, SFAS No. 158 requires recognition of the over-funded or under-funded status of an entity's defined benefit postretirement plan as an asset or liability in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer's fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. This Statement is effective for fiscal years ending after December 15, 2006. Since the Company does not maintain any defined benefit or other postretirement plans, the adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ("SFAS No. 157"). SFAS No. 157 establishes a common definition for fair value to be applied to U.S. GAAP guidance requiring use of fair value, establishes a framework for measuring fair value, and expands disclosure about such fair value measurements. This Statement is effective for fiscal years beginning after November 15, 2007. The Company is currently assessing the impact of SFAS No. 157 on the Company's Consolidated Financial Statements.

In September 2006, the SEC issued SAB 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* ("SAB 108"). SAB 108 provides guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of determining whether the current year's financial statements are materially misstated. This Bulletin is effective for fiscal years ending after November 15, 2006. The adoption of this Bulletin did not impact the Company's Consolidated Financial Statements.

In July 2006, the FASB issued FASB Staff Position ("FSP") FIN 48, *Accounting for Uncertainty in Income Taxes* ("FSP FIN 48") an interpretation of SFAS No. 109, *Accounting for Income Taxes*. FSP FIN 48 prescribes a recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interpretation 48 is effective for fiscal years beginning after December 15, 2006; therefore, we will be required to adopt this Interpretation in the first quarter of 2007. We are currently evaluating FSP FIN 48 but have not yet determined the impact, if any; the adoption of this Interpretation will have on the Company's Consolidated Financial Statements.

In March 2006, the FASB issued SFAS No. 156, *Accounting for Servicing of Financial Assets*-an amendment of FASB *Statement No. 140* ("SFAS No. 156") that provides guidance on accounting for separately recognized servicing assets and servicing liabilities. In accordance with the provisions of SFAS No. 156, separately recognized servicing assets and servicing liabilities must be initially measured at fair value, if practicable. Subsequent to initial recognition, the Company may use either the amortization method or the fair value measurement method to account for servicing assets and servicing liabilities within the scope of this Statement. An entity should adopt the Statement as of the beginning of its first fiscal year that begins after June 15, 2006, so the Company will adopt SFAS No. 156 in fiscal year 2007. The adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

In February 2006, the FASB issued SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments*-an amendment of FASB *Statements No. 133 and 140* ("SFAS No. 155"), to permit fair value remeasurement for any hybrid financial instrument that contains an embedded derivative that otherwise would require bifurcation in accordance with the provisions of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. This Statement is effective for all financial instruments acquired or issued after the beginning of an entity's first fiscal year that begins after June 15, 2006. The Company will adopt SFAS No. 155 in fiscal year 2007. The adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

#### Item 7A: Quantitative and Qualitative Disclosures about Market Risk

We develop products in the United States and sell them worldwide. As a result, our financial results could be affected by factors such as changes in foreign exchange rates or weak economic conditions in foreign markets. Since our sales are currently priced in U.S. dollars and are translated to local currency amounts, a strengthening of the dollar could make our products less competitive in foreign markets. Interest income is sensitive to changes in the general level of U.S. interest rates, particularly since our investments are in cash equivalents. Based on the nature and current levels of our cash equivalents, however, we have concluded that there is no material market risk exposure.

As a result of holding marketable equity securities available for sale, the Company is exposed to fluctuations in market value. The Company recognizes changes in market value through the balance sheet, however, if an other than temporary market decline were to occur, it could have a material impact on the Company's operating results.

The Company's issued derivatives have consisted of rights to purchase shares of the Company's common stock ("freestanding warrants") and Plug Power common stock owned by the Company. The fair value of the embedded derivative for the right to purchase Plug Power common stock was recorded in the financial statement line titled "Derivative liability" until its exercise date during June 2005. The fair value of the derivative related to freestanding warrants issued by the Company during its December 2006 capital raise is recorded in the "Derivative liability" line on its financial statements. These derivatives are valued quarterly using the Black-Scholes Option Pricing Model. The Company recognizes changes in fair value through the operating statement line titled "Gain (loss) on derivatives." The Company does not use derivative financial instruments for speculative or trading purposes.



Market risk represents the risk of changes in value of a financial instrument caused by fluctuations in interest rates and equity prices. The Company has performed a sensitivity analysis on its investments in Plug Power and its warrant derivative financial instrument. The sensitivity analysis presents the hypothetical change in fair value of the Company's financial investments as of the balance sheet date. Market risk is estimated as the potential change in fair value resulting from an immediate hypothetical one-percentage point parallel shift in the yield curve. The fair values of the Company's holdings in securities available for sale have been based on quoted market prices and its derivative financial instruments based on estimates using valuation techniques.

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The fair market and estimated values of the Company's investments in Plug Power and company-issued warrant and the calculated impact of a market price decrease of ten percent, is as follows:

(Dollars in thousands)

<u>Balance at</u>	<u>Holdings/Derivatives</u>	<u>Estimated Fair Market Value</u>	<u>Ten Percent Market Decrease</u>
December 31, 2006	Plug Power shares	\$ 10,075	\$ 9,068
	Freestanding warrant	\$ 3,664	\$ 3,298
December 31, 2005	Plug Power shares	\$ 18,947	\$ 17,052

#### Item 8: Financial Statements and Supplementary Data

The financial statements filed herewith are set forth on the Index to Consolidated Financial Statements on Page F-1 of the separate financial section, which follows page 46 of this report and are incorporated herein by reference.

#### Selected Quarterly Financial Data

(Unaudited and in thousands except per share amounts)

1st	2nd	3rd	4th
-----	-----	-----	-----

2006

Product revenue	\$ 1,513	\$ 1,700	\$ 1,693	\$ 2,761
Funded research and development revenue	45	93	173	178
Gross profit - product revenue	974	974	1,043	1,776
Gross loss - funded research and development	(165)	(37)	(150)	(311)
Net loss	\$ (3,431)	\$ (3,222)	\$ (3,678)	\$ (3,336)

## Loss per Share (Basic and Diluted):

Net loss	\$ (0.11)	\$ (0.10)	\$ (0.12)	\$ (0.10)
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2005

Product revenue	\$ 1,403	\$ 1,285	\$ 1,428	\$ 1,896
Funded research and development revenue	324	380	792	333
Gross profit - product revenue	801	768	865	1,197
Gross loss - funded research and development	(731)	(677)	(85)	(233)
Net loss	\$ (6,054)	\$ (2,793)	\$ (1,909)	\$ (4,338)

## Loss per Share (Basic and Diluted):

Net loss	\$ (0.20)	\$ (0.09)	\$ (0.06)	\$ (0.14)
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## Item 9: Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None.

## Item 9A: Controls and Procedures

## (a) Evaluation of Disclosure Controls and Procedures

Evaluation of Disclosure Controls and Procedures:

The Company's management, with the participation of the Company's chief executive officer and chief financial officer, evaluated the effectiveness of the Company's disclosure controls and procedures as of December 31, 2006. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be

disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to the company's management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the valuation of the Company's disclosure controls and procedures as of December 31, 2006, the Company's

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chief executive officer and chief financial officer concluded that, as of such date, the Company's disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting:

There have been no changes in the Company's internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act, during the Company's fiscal quarter ended December 31, 2006 that have materially affected, or are reasonable likely to materially affect, the Company's internal control over financial reporting.

(b) Management's Report on Internal Control Over Financial Reporting

Management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting, as that term is defined in Exchange Act Rules 13a-15(f) and 15d-15(f). The Company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the supervision and with the participation of the Company's management, including the principal executive officer and principal financial officer, the Company conducted an evaluation of the effectiveness of its internal control over financial reporting using the criteria set forth in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on our evaluation using the criteria set forth in *Internal Control-Integrated Framework*, our management concluded that our internal control over financial reporting was effective as of December 31, 2006.

Our management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2006 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included herein at page F-2.

/s/ Peng K. Lim

Chief Executive Officer

(Principal Executive Officer)

/s/ Cynthia A. Scheuer

Vice President and Chief Financial Officer

(Principal Financial Officer)

Item 9B: Other Information

None.

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PART III

Item 10: Directors, Executive Officers and Corporate Governance

(a) Directors

Incorporated herein by reference is the information appearing under the captions "Information about our Directors" and "Compliance with Section 16(a) of the Securities Exchange Act of 1934" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

(b) Executive Officers

Incorporated herein by reference is the information appearing under the captions "Executive Officers" and "Compliance with Section 16(a) of the Securities Exchange Act of 1934" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

Incorporated herein by reference is the information appearing under the caption "Board of Director Meetings and Committees - Audit Committee" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

Code of Ethics:

The Company has adopted a Code of Ethics for employees, officers and directors. The Code of Ethics is intended to comply with Item 406 of Regulation S-K of the Securities Exchange Act of 1934 and with applicable rules of the NASDAQ Stock Market, Inc. A copy may be obtained at no charge by written request to the attention of the Secretary of the Company at 431 New Karner Road, Albany, New York 12205. A copy of the Code of Ethics is also available on the Company's website at <http://www.mechtech.com>.

Incorporated herein by reference is the information appearing under the caption "Compliance with Section 16(a) of the Securities Exchange Act of 1934 - Shareholder Communications with the Board of Directors."

Item 11: Executive Compensation

Incorporated herein by reference is the information appearing under the caption "Executive Compensation" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Shareholder Matters

Incorporated herein by reference is the information appearing under the caption "Principal Shareholders" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

Equity Compensation Plans

As of December 31, 2006, the Company has three equity compensation plans, the Mechanical Technology Incorporated 2006 Equity Incentive Plan (the "2006 Plan"), the 1999 Employee Stock Incentive Plan (the "1999 Plan") and the 1996 Stock Incentive Plan (the "1996 Plan," and together with the 2006 and 1999 Plans, the "Plans"). See Note 13 to the Consolidated Financial Statements referred to in Item 8 for a description of these plans.

The following table presents information regarding these plans:

<u>Plan Category</u>	Number of Securities To Be Issued Upon Exercise of Outstanding	Weighted Average Price of Outstanding	Number of Securities Remaining Available for Future Issuance Under <u>Equity Compensation Plans</u>
----------------------	--	---------------------------------------	---

	<u>Options, Warrants, Rights</u>	<u>Options, Warrants,</u> <u>Rights</u>	
	(1)(2)		
Equity compensation plans approved by security holders	5,509,194	\$ 4.04	2,096,159

(1)

Under the 1996, 1999 and 2006 Plans, the securities available under the Plans for issuance and issuable pursuant to exercises of outstanding options may be adjusted in the event of a change in outstanding stock by reason of stock dividend, stock splits, reverse stock splits, etc.

(2)

The 1996 Plan provided for increases to securities available by 10% of any increase in shares outstanding, excluding shares issued under option plans. The 1996 Plan expired on October 17, 2006 so no additional options may be issued under this plan.

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Item 13: Certain Relationships and Related Transactions, and Director Independence

Incorporated herein by reference is the information appearing under the caption "Certain Relationships and Related Transactions" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.

Item 14: Principal Accountant Fees and Services

Incorporated herein by reference is the information appearing under the caption "Independent Accountants" in the Company's definitive Proxy Statement for its 2007 Annual Meeting of Shareholders to be filed with the Securities and Exchange Commission.



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PART IV

Item 15: Exhibits, Financial Statement Schedules

15(a) (1)

**Financial Statements:** The financial statements filed herewith are set forth on the Index to Consolidated Financial Statements on page F-1 of the separate financial section which accompanies this Report, which is incorporated herein by reference.

15(a) (2)

**Financial Statement Schedules:** The following consolidated financial statement schedule for the years ended December 31, 2006, 2005 and 2004 is included pursuant to Item 15(d):

Report of Independent Registered Public Accounting Firm on Financial Statements Schedule;



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Schedule II - Valuation and Qualifying Accounts.

All other financial statement schedules not listed have been omitted because they are either not required, not applicable, or the information has been included elsewhere in the consolidated financial statements or notes thereto.

15(a) (3) Exhibits:

The exhibits listed in the Exhibit Index immediately preceding the exhibits are filed as part of this Annual Report on Form 10-K.

The following exhibits are filed as part of this Report:

Exhibit

Number

Description

1.1	Placement Agreement dated December 15, 2006 with Rodman & Renshaw, LLC. (30)
3.1	Certificate of Incorporation of the registrant, as amended and restated and amended. (3)(6)(7)
3.2	By-Laws of the registrant, as restated. (3)
4.1	Form of Common Stock Purchase Warrant to be issued by the Company. (30)
10.1	Mechanical Technology Incorporated Restricted Stock Incentive Plan. (1)
10.14	Mechanical Technology Incorporated Stock Incentive Plan for its December 20, 1996 Special Meeting of Shareholders. (2)
10.30	Mechanical Technology Incorporated 1999 Employee Stock Incentive Plan. (4)
10.38	Lease dated August 10, 1999 between Carl E. Touhey and Mechanical Technology, Inc. (5)
10.43	Lease dated April 2, 2001 between Kingfisher LLC and Mechanical Technology Inc. (8)

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- 10.44 First Amendment to lease dated March 13, 2003 between Kingfisher LLC and Mechanical Technology Inc. (10)
- 10.118 Exchange Agreement dated December 20, 2002 by and between First Albany Companies Inc. and Mechanical Technology Incorporated. (9)
- 10.119 Strategic Alliance Agreement, dated as of September 19, 2003, between The Gillette Company and MTI MicroFuel Cells Inc. (11)
- 10.121 Agreement, dated January 26, 2004, between Mechanical Technology Inc. and Fletcher International, Ltd. (13)
- 10.122 Amendment No. 1 to the Main Agreement dated as of May 4, 2004 entered into by and between the registrant and Fletcher International, Ltd. (14)
- 41
- 10.123 Amendment to the Strategic Alliance Agreement between The Gillette Company and MTI MicroFuel Cells Inc. dated August 18, 2004. (15)
- 10.124 MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan (Amended and Restated as of September 23, 2004). (16)
- 10.125 MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan Stock Option Agreement (Updated September 23, 2004). (16)
- 10.126 MTI MicroFuel Cells Inc. 2001 Stock Option Agreement for Employees, Consultants and Directors. (16)
- 10.127 MTI MicroFuel Cells Inc. Notice of Exercise of Option (Updated September 23, 2004). (16)
- 10.128 Lease dated January 26, 2005 between 750 University LLC and MTI MicroFuel Cells Inc. (17)
- 10.129 Summary of Changes in Compensation of Named Executive Officers of the Registrant
- 10.130 Cash Compensation for Non-Management Directors of the Registrant.
- 10.131 Amendment No. 2 to the Strategic Alliance Agreement between The Gillette Company and MTI MicroFuel Cells Inc. dated June 20, 2005. (18)

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- 10.132 Second Amendment to lease dated December 12, 2005 between Kingfisher, LLC and Mechanical Technology Incorporated. (19)
- 10.133 Employment Agreement dated December 20, 2005 between William P. Acker and MTI MicroFuel Cells Inc. (20)
- 10.134 Lease Termination Agreement fully executed on February 9, 2006 between 750 University Avenue, LLC and MTI MicroFuel Cells Inc. (22)
- 10.135 Employment Agreement dated March 6, 2006 between Russel Marvin and MTI MicroFuel Cells Inc. (23)
- 10.136 Employment Agreement dated September 25, 2002 between Cynthia A. Scheuer and Mechanical Technology Incorporated and MTI MicroFuel Cells Inc. (21)
- 10.137 Employment Agreement dated November 19, 2004 between Juan Becerra and MTI MicroFuel Cells Inc. (21)
- 10.138 Employment Agreement dated May 3, 2006 between Shimshon Gottesfeld and MTI MicroFuel Cells Inc. (25)
- 10.139 Employment Agreement dated May 4, 2006 between Peng K. Lim and MTI MicroFuel Cells Inc. (26)
- 10.140 Form of Restricted Stock Agreement. (27)
- 10.141 (A) Alliance Agreement dated May 16, 2006 between MTI MicroFuel Cells Inc. and Samsung Electronics Co., Ltd. (28)
- 10.142 Third Amendment to lease dated August 7, 2006 between Kingfisher, LLC and Mechanical Technology Incorporated. (28)
- 10.143 (A) Amendment No. 3 to the Strategic Alliance Agreement dated September 13, 2006, between MTI MicroFuel Cells Inc. and The Gillette Company. (29)
- 10.144 Form of Subscription Agreement. (30)
- 10.145 Mechanical Technology Incorporated 2006 Equity Incentive Plan. (24)

14.1	Code of Ethics. (21)
21	Subsidiaries of the Registrant. (12)
31.1	Rule 13a-14(a)/15d-14(a) Certification of Peng K. Lim
31.2	Rule 13a-14(a)/15d-14(a) Certification of Cynthia A. Scheuer
32.1	Section 1350 Certification of Peng K. Lim
32.2	Section 1350 Certification of Cynthia A. Scheuer.

Certain exhibits were previously filed (as indicated below) and are incorporated herein by reference. All other exhibits for which no other filing information is given are filed herewith:

- Filed as Exhibit 28.1 to the registrant's Form S-8 Registration Statement No. 33-26326, filed December 29, 1988.
- Filed as Appendix A to the registrant's Definitive Proxy Statement Schedule 14A filed November 19, 1996.
- Filed as an Exhibit to the Proxy Statement, Schedule 14A, dated March 9, 1998.
- Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated February 13, 1999.
- Filed as an Exhibit (bearing the same exhibit number) to the registrant's Form 10-K Report for the fiscal year ended September 30, 1999.
- Filed as an Exhibit to the Proxy Statement, Schedule 14A, dated February 22, 2000.
- Filed as an Exhibit to the Proxy Statement, Schedule 14A, dated March 19, 2001.
- Filed as an Exhibit (bearing the same exhibit number) to the registrant's Form 10-K Report for the fiscal year ended September 30, 2001.
- Filed as an Exhibit to the registrant's Form 13-D/A Report dated January 3, 2003.
- Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2002.
- Filed as an Exhibit to the registrant's Form 10-Q Report for its fiscal quarter ended September 30, 2003.
- Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2003.
- Filed as an Exhibit to the registrant's Form 8-K Report dated January 27, 2004.
- Filed as an Exhibit to the registrant's Form 8-K Report dated May 4, 2004.
- Filed as an Exhibit to the registrant's Form 10-Q Report for its quarter ended September 30, 2004.
- Filed as an Exhibit to the registrant's Form 8-K Report dated December 10, 2004.
- Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2004.
- Filed as an Exhibit to the registrant's Form 8-K Report dated June 20, 2005.
- Filed as an Exhibit to the registrant's Form 8-K Report dated December 12, 2005.
- Filed as an Exhibit to the registrant's Form 8-K Report dated December 20, 2005.
- Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2005.
- Filed as an Exhibit to the registrant's Form 8-K Report dated February 9, 2006.
- Filed as an Exhibit to the registrant's Form 8-K Report dated March 6, 2006.
- Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated April 3, 2006.
- Filed as an Exhibit to the registrant's Form 8-K Report dated May 3, 2006.
- Filed as an Exhibit to the registrant's Form 8-K Report dated May 4, 2006.
- Filed as an Exhibit to the registrant's Form 8-K Report dated May 18, 2006.
- Filed as an Exhibit to the registrant's Form 10-Q Report for its quarter ended June 30, 2006.
- Filed as an Exhibit to the registrant's Form 10-Q Report for its quarter ended September 30, 2006.
- Filed as an Exhibit to the registrant's Form 8-K Report dated December 15, 2006.

(A) A confidential treatment request with respect to certain portions has been filed with the Security and Exchange Commission.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

MECHANICAL TECHNOLOGY INCORPORATED

Date: March 15, 2007

By: /s/ Peng K. Lim

Peng K. Lim

Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Peng K. Lim</u> Peng K. Lim	Chief Executive Officer and Director	March 15, 2007
<u>/s/ Steven N. Fischer</u> Steven N. Fischer	Executive Chairman and Director	March 15, 2007
<u>/s/ Cynthia A. Scheuer</u> Cynthia A. Scheuer	Vice President, Chief Financial Officer, and Secretary (Principal Financial and Accounting Officer)	March 15, 2007
<u>/s/</u> <u>Thomas J. Marusak</u>	Director	March 15, 2007

Thomas J. Marusak

/s/ William P. Phelan

Director

March 15, 2007

William P. Phelan

/s/ E. Dennis O'Connor

Director

March 15, 2007

E. Dennis O'Connor

/s/ Walter L. Robb

Director

March 15, 2007

Dr. Walter L. Robb

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REPORT OF INDEPENDENT REGISTERED PUBLIC  
ACCOUNTING FIRM ON FINANCIAL STATEMENT SCHEDULE

To the Board of Directors and Shareholders  
of Mechanical Technology Incorporated

Our audits of the consolidated financial statements referred to in our report dated March 9, 2007 appearing on page F-2 of this Form 10-K of Mechanical Technology Incorporated, also included an audit of the financial statement schedule listed in Item 15(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/PricewaterhouseCoopers LLP

Albany, New York

March 9, 2007





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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES  
 VALUATION AND QUALIFYING ACCOUNTS  
 (DOLLARS IN THOUSANDS)

<u>Description</u>	<u>Balance at</u> <u>beginning</u> <u>of period</u>	<u>Additions</u> <u>charged to</u> <u>costs and</u> <u>expenses</u>	<u>Additions</u> <u>charged to</u> <u>other accounts</u>	<u>Deductions</u>	<u>Balance</u> <u>at end of</u> <u>period</u>
				-	
				-	
				-	
Allowance for doubtful accounts (accounts receivable) for the years ended:					
December 31, 2006	\$ -		\$ -	\$ -	\$ -
December 31, 2005	\$ 58		\$ -	\$ (58)	\$ -
December 31, 2004	\$ -		\$ 58	\$ -	\$ 58

Includes accounts written off as uncollectible and recoveries.

Allowance for doubtful accounts (notes receivable) for the years ended:

December 31, 2006	\$ -	\$ -	\$ -	\$ -	\$ -
December 31, 2005	\$ -	\$ -	\$ -	\$ -	\$ -
December 31, 2004	\$ 660	\$ -	\$ (50)	\$ (610)	\$ -

Includes accounts written off as uncollectible and recoveries.

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Valuation allowance for deferred tax assets for the years ended:

December 31, 2006	\$ 10,923	\$ 7,915	\$ (23)	\$ -	\$ 18,815
December 31, 2005	\$ 1,836	\$ 9,087	\$ -	\$ -	\$ 10,923
December 31, 2004	\$ 1,836	\$ -	\$ -	\$ -	\$ 1,836

Inventory reserve for the years ended:

December 31, 2006	\$ 48	\$ 136	\$ (1)	\$ (33)	\$ 150
December 31, 2005	\$ 67	\$ 75	\$ 9	\$ (103)	\$ 48
December 31, 2004	\$ 8	\$ 107	\$ 28	\$ (76)	\$ 67

MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES  
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of

Mechanical Technology Incorporated:

We have completed integrated audits of Mechanical Technology Incorporated's consolidated financial statements and of its internal control over financial reporting as of December 31, 2006, in accordance with the standards of the Public Company Accounting Oversight Board (United States). Our opinions, based on our audits, are presented below.

Consolidated financial statements

In our opinion, the consolidated financial statements listed in the accompanying index present fairly, in all material respects, the financial position of Mechanical Technology Incorporated and its subsidiaries at December 31, 2006 and 2005, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2006 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit of financial statements includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

As discussed in Note 13 to the consolidated financial statements, the Company changed the manner in which it accounts for stock-based compensation in 2006.

Internal control over financial reporting

Also, in our opinion, management's assessment, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A, that the Company maintained effective internal control over financial reporting as of December 31, 2006 based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), is fairly stated, in all material respects, based on those criteria. Furthermore, in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2006, based on criteria established in *Internal Control - Integrated Framework* issued by the COSO. The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting. Our responsibility is to express opinions on management's assessment and on the effectiveness of

the Company's internal control over financial reporting based on our audit. We conducted our audit of internal control over financial reporting in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. An audit of internal control over financial reporting includes obtaining an understanding of internal control over financial reporting, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we consider necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Albany, New York

March 9, 2007

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

December 31, 2006 and 2005

(Dollars in thousands)

	<u>2006</u>	<u>2005</u>
Assets		
Current Assets:		
Cash and cash equivalents	\$ 14,545	\$ 11,230
Securities available for sale	10,075	18,947

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Accounts receivable	1,613	998
Other receivables - related parties	-	3
Inventories, net	1,216	1,058
Prepaid expenses and other current assets	<u>442</u>	<u>451</u>
Total Current Assets	27,891	32,687
Property, plant and equipment, net	2,926	2,495
Deferred income taxes	<u>2,994</u>	<u>6,085</u>
Total Assets	\$ <u>33,811</u>	\$ <u>41,267</u>

Liabilities and Shareholders' Equity

Current Liabilities:

Accounts payable	\$ 651	\$ 375
Accrued liabilities	2,470	1,552
Accrued liabilities - related parties	-	2
Deferred revenue	866	120
Income taxes payable	90	65
Deferred income taxes	<u>2,994</u>	<u>6,108</u>
Total Current Liabilities	7,071	8,222

Long-Term Liabilities:

Derivative liability	<u>3,664</u>	=
Total Liabilities	<u>10,735</u>	<u>8,222</u>

Commitments and Contingencies

Minority interests	<u>205</u>	<u>129</u>
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Shareholders' Equity

Common stock, par value \$0.01 per share, authorized 75,000,000;

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46,084,678 issued in 2006 and 38,965,937 issued in 2005	461	390
Paid-in-capital	130,565	122,095
Accumulated deficit	(95,385)	(81,718)
Accumulated Other Comprehensive Income:		
Unrealized gain on securities available for sale, net of tax	984	5,983
Restricted stock grants - unearned compensation	-	(80)
Common stock in treasury, at cost, 8,040,736 shares in 2006 and 2005	<u>(13,754)</u>	<u>(13,754)</u>
	)	
Total Shareholders' Equity	<u>22,871</u>	<u>32,916</u>
Total Liabilities and Shareholders' Equity	<u>\$ 33,811</u>	<u>\$ 41,267</u>

The accompanying notes are an integral part of the consolidated financial statements.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS

For the Years Ended December 31, 2006, 2005 and 2004

(Dollars in thousands, except per share)

	Year Ended Dec. 31, <u>2006</u>	Year Ended Dec. 31, <u>2005</u>	Year Ended Dec. 31, <u>2004</u>
Product revenue	\$ 7,667	\$ 6,012	\$ 7,530
Funded research and development revenue	<u>489</u>	<u>1,829</u>	<u>1,040</u>



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Total revenue	8,156	0,841	8,570
Operating costs and expenses:			
Cost of product revenue	J,900	J,381	J,877
Research and product development expenses:			
Funded research and product development	I,152	K,555	L,040
Unfunded research and product development	<u>11,769</u>	N,116	<u>8,920</u>
Total research and product development expenses	I2,921	9,671	I2,960
Selling, general and administrative expenses	<u>10,072</u>	<u>10,887</u>	<u>6,325</u>
Operating loss	(17,737)	(15,098)	(13,592)
Gain (loss) on derivatives	I82	(10,407)	N14
Gain on sale of securities available for sale	L,289	I0,125	K,626
Other income, net	<u>286</u>	<u>431</u>	<u>231</u>
Loss before income taxes and minority interests	<u>(12,980)</u>	<u>(14,949)</u>	<u>(9,121)</u>
Income tax (expense) benefit	(1,895)	(1,587)	K,564
Minority interests in losses of consolidated subsidiary	<u>1,208</u>	<u>1,442</u>	<u>1,366</u>
Net loss	\$ <u>(13,667)</u>	\$ <u>(15,094)</u>	\$ <u>(4,191)</u>
Loss per Share (Basic and Diluted):			
Loss per share	\$ <u>(0.43)</u>	\$ <u>(0.49)</u>	\$ <u>(0.14)</u>

The accompanying notes are an integral part of the consolidated financial statements.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES  
 CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY  
 AND COMPREHENSIVE INCOME (LOSS)

For the Years Ended December 31, 2006, 2005 and 2004

(Dollars in thousands)

	Year Ended	Year Ended	Year Ended
	Dec. 31,	Dec. 31,	Dec. 31,
Common Stock	<u>2006</u>	<u>2005</u>	<u>2004</u>
Balance, beginning	\$ 390	\$ 387	\$ 358
Issuance of shares - private placement	-	1	27
Issuance of shares - capital raise	60	-	-
Issuance of shares - anti-dilution penalty	3	-	-
Issuance of shares - stock options	7	1	2
Issuance of shares - restricted stock	<u>1</u>	<u>1</u>	-

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Balance, ending	\$ <u>461</u>	\$ <u>390</u>	\$ <u>387</u>
Paid-In Capital			
Balance, beginning	\$ 122,095	\$ 121,033	\$ 104,126
Private placement, net of expenses	-	(45)	15,159
Capital raise and warrant issuance, net of expenses	6,250	-	-
Derivative tax asset	-	-	696
Issuance of shares - stock options	1,181	325	407
Share-based compensation	2,406	1,083	8
MTI MicroFuel Cell investment	(1,284)	(301)	343
Stock option exercises recognized differently for financial and tax reporting	-	-	294
Elimination of unearned compensation due to change in accounting principle	(80)	-	-
Issuance of shares - anti-dilution penalty	<u>(3)</u>	=	=
Balance, ending	\$ <u>130,565</u>	\$ <u>122,095</u>	\$ <u>121,033</u>
Accumulated Deficit			
Balance, beginning	\$ (81,718)	\$ (66,624)	\$ (62,433)
Net loss	<u>(13,667)</u>	<u>(15,094)</u>	<u>(4,191)</u>
	)	)	
Balance, ending	\$ <u>(95,385)</u>	\$ <u>(81,718)</u>	\$ <u>(66,624)</u>
Accumulated Other Comprehensive Income (Loss):			
Unrealized Gain (loss) on Securities Available for Sale, Net of Taxes			
Balance, beginning	\$ 5,983	\$ 14,542	\$ 19,944
Change in unrealized (loss) gain on securities available for sale (net of taxes of \$0 in 2006, \$0 in 2005, and \$2,550 in 2004)	(3,212)	(3,620)	(3,826)

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Less reclassification adjustment for gains included in net income (net of taxes

of \$1,913 in 2006, \$3,293 in 2005, and \$1,051 in 2004) (1,787)      (4,939)      (1,576)

)

Balance, ending \$ 984      \$ 5,983      \$ 14,542

Restricted Stock Grants - Unearned Compensation

Balance, beginning (80)      \$ -      \$ -

Elimination of unearned compensation due to change in accounting principle 80      -      -

Issuance of shares -      (125)      -

Grants amortization =      45      =

Balance, ending \$ -      \$ (80)      \$ -

Treasury Stock

Balance, beginning \$ (13,754)      \$ (13,754)      \$ (13,729)

Stock acquisition =      =      (25)

)

Balance, ending \$ (13,754)      \$ (13,754)      \$ (13,754)

Total Shareholders' Equity \$ 22,871      \$ 32,916      \$ 55,584

Total Comprehensive (Loss):

Net loss \$ (13,667)      \$ (15,094)      \$ (4,191)

Other comprehensive (loss):

Reclassification adjustment for gains included in net income, net of taxes (1,787)      (4,939)      (1,576)

Change in unrealized (loss) gain on securities available for sale, net of taxes (3,212)      (3,620)      (3,826)

Total comprehensive (loss) \$ (18,666)      \$ (23,653)      \$ (9,593)

The accompanying notes are an integral part of the consolidated financial statements.

## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## CONSOLIDATED STATEMENTS OF CASH FLOWS

For the Years Ended December 31, 2006, 2005 and 2004

(Dollars in thousands)	Year Ended	Year Ended	Year Ended
	Dec. 31,	Dec. 31,	Dec. 31,
	<u>2006</u>	<u>2005</u>	<u>2004</u>
Operating Activities			
Net loss	\$ (13,667)	\$ (15,094)	\$ (4,191)
Adjustments to reconcile net loss to net cash used by operating activities:			
Gain (loss) on derivatives	(182)	10,407	(614)
Gain on sale of securities available for sale	(4,289)	(10,125)	(3,626)
Depreciation and amortization	1,101	1,253	911
Minority interests in losses of consolidated subsidiary	(1,208)	(1,442)	(1,366)
Allowance for bad debts	(1)	(58)	58
Loss on disposal of fixed assets	40	130	38
Deferred income taxes	1,890	1,617	(3,563)
Stock based compensation	2,406	1,003	8
Changes in operating assets and liabilities :			
Accounts receivable	(614)	832	(868)
Other receivables - related parties	3	-	(3)
Inventories	(158)	78	164
Prepaid expenses and other current assets	9	53	10
Accounts payable	277	362	(679)

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Income taxes payable	25	25	28
Deferred revenue	746	(359)	429
Accrued liabilities - related parties	(2)	2	(48)
Accrued liabilities	<u>918</u>	<u>(1,256)</u>	<u>1,330</u>
	)		
Net cash used by operating activities	<u>(12,706)</u>	<u>(12,572)</u>	<u>(11,982)</u>
	)	)	
Investing Activities			
Purchases of property, plant and equipment	(1,574)	(1,004)	(1,834)
Proceeds from sale of property, plant and equipment	2	10	-
Proceeds from sale of securities available for sale	<u>6,249</u>	<u>1,969</u>	<u>4,479</u>
Net cash provided by investing activities	<u>4,677</u>	<u>975</u>	<u>2,645</u>
Financing Activities			
Gross proceeds from capital raise and warrants issued	10,900	-	-
Gross proceeds from private placement	-	-	18,000
Costs of private placement	-	(45)	-
Cost of capital raise	(744)	-	-
Financing costs	-	-	(1,076)
Proceeds from stock option exercises	1,188	327	409
Net proceeds from subsidiary stock issuance	-	-	2,194
Purchase of common stock for treasury	=	=	<u>(25)</u>
Net cash provided by financing activities	<u>11,344</u>	<u>282</u>	<u>19,502</u>
Increase (decrease) in cash and cash equivalents	3,315	(11,315)	10,165
Cash and cash equivalents - beginning of year	<u>11,230</u>	<u>22,545</u>	<u>12,380</u>
Cash and cash equivalents - end of year	\$ <u>14,545</u>	\$ <u>11,230</u>	\$ <u>22,545</u>

The accompanying notes are an integral part of the consolidated financial statements.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 1. Nature of Operations

##### Description of Business

Mechanical Technology Incorporated, ("MTI" or the "Company"), a New York corporation, was incorporated in 1961. MTI operates in two segments, the New Energy segment which is conducted through MTI MicroFuel Cells Inc. ("MTI Micro"), a majority-owned subsidiary, and the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. ("MTI Instruments"), a wholly owned subsidiary.

At its MTI Micro subsidiary, the Company's Mobion® cord-free power packs are being developed to replace current lithium ion and similar rechargeable battery systems in many hand-held electronic devices for the military and consumer markets. Mobion® power packs are based on direct methanol fuel cell ("DMFC") technology which has been recognized as enabling technology for advanced portable power sources by the scientific community and industry analysts. As the need for advancements in portable power increases, MTI Micro is developing Mobion® cord-free rechargeable power pack technology as a superior solution for powering the multi-billion dollar portable electronics market.

At its MTI Instruments subsidiary, the Company continues to be a worldwide supplier of precision non-contact physical measurement solutions, condition based monitoring systems, portable balancing equipment and semiconductor wafer inspection tools. MTI Instruments' products use a comprehensive array of technologies to solve complex real world applications in numerous industries including manufacturing, semiconductor, commercial/military aviation, automotive and data storage. The Company's products consist of electronic gauging instruments for position, displacement and vibration applications within the design, manufacturing/production, test and research markets; semiconductor products for wafer characterization of semi-insulating and semi-conducting wafers within the semiconductor industry; and engine balancing and vibration analysis systems for both military and commercial aircraft.

##### Liquidity

The Company has incurred significant losses as it continues to fund MTI Micro's DMFC product development and commercialization programs. The Company expects that losses will continue and fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, sales of securities available for sale, the operating results of MTI Instruments and MTI Micro, and the availability, or lack thereof, of equity financing and the ability to attract government funding resources to fund research and development costs. The Company anticipates that it will continue incurring losses as it seeks to develop and commercialize its DMFC systems. It expects to continue

funding its operations from current cash and cash equivalents, the sale of securities available for sale, government research program funding and the proceeds, if any, from potential equity offerings by the Company.

During 2006, the Company sold 1,103,500 shares of Plug Power Inc. ("Plug Power") common stock with proceeds totaling \$6,249 thousand and gains totaling \$4,289 thousand. These proceeds reflect the Company's previously announced strategy to raise additional capital through the sale of Plug Power stock in order to fund MTI Micro operations.

On December 20, 2006, the Company executed on agreements to sell 6,055,556 shares of common stock and warrants to purchase 3,027,778 shares of common stock for an aggregate purchase price of \$10,900 thousand. The common stock and warrants were sold in units, with each unit consisting of 100 shares of common stock and a warrant to purchase 50 shares of common stock at an exercise price of \$2.27 per share. The Company's net proceeds of the offering were \$10,200 thousand after deducting the placement agent's fees and other expenses payable by the Company. See Note 10 - Shareholder's Equity for additional information on this transaction.

At December 31, 2006, the Company had cash, cash equivalents and securities available for sale in the amount of \$24,620 thousand and working capital of \$20,820 thousand. The failure to raise the funds necessary to finance our future cash requirements could adversely affect the Company's ability to pursue its strategy and could negatively affect the Company's operations in future periods.

Management believes it will have adequate resources to fund operations and capital expenditures for the next twelve months based on current cash and cash equivalents, current cash flow requirements, revenue and expense projections and the potential sale of securities available for sale at current market values.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 2. Accounting Policies

##### Principles of Consolidation

The consolidated financial statements include the accounts of the Company and its majority-owned subsidiaries. All significant inter-company transactions are eliminated in consolidation.

Minority interest in subsidiaries consists of equity securities issued by a subsidiary of the Company. No gain or loss was recognized as a result of the issuance of these securities, and the Company owned a majority of the voting equity of the subsidiary both before and after the transactions. The Company reflects the impact of the equity securities issuances in its investment in subsidiary and additional paid-in-capital accounts for the dilution or anti-dilution of its ownership interest in the subsidiary.

##### Use of Estimates

The preparation of the consolidated financial statements in conformity with accounting principles generally accepted in the United States of America ("U.S. GAAP") which requires management to make estimates and assumptions that



affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### Fair Value of Financial Instruments

The Company's financial instruments consist of cash and cash equivalents, marketable securities, accounts receivable, unbilled contract costs and fees, derivatives and accounts payable. The estimated fair values of these financial instruments approximate their carrying values at December 31, 2006 and 2005. The estimated fair values have been determined through information obtained from market sources, where available, or Black-Scholes Option Pricing model valuations.

#### Accounting for Derivative Instruments

The Company accounts for derivative instruments and embedded derivative instruments in accordance with Statement of Financial Accounting Standards ("SFAS") No. 133, *Accounting for Derivative Instruments and Hedging Activities*, as amended. The amended standard requires an entity to recognize all derivatives as either assets or liabilities in the statement of financial position and measure these instruments at fair value. Fair value is estimated using the Black-Scholes Option Pricing model. The Company also follows Emerging Issues Task Force ("EITF") Issue No. 00-19, *Accounting for Derivative Financial Instruments Indexed to and Potentially Settled in, a Company's Own Stock*, which requires freestanding contracts that are settled in a company's own stock, including common stock warrants, to be designated as an equity instrument, asset or a liability. Under the provisions of EITF Issue No. 00-19, a contract designated as an asset or a liability must be carried at fair value, with any changes in fair value recorded in the results of operations. A contract designated as an equity instrument can be included in equity, with no fair value adjustments are required.

The asset/liability derivatives are valued on a quarterly basis using the Black-Scholes Option Pricing model. Significant assumptions used in the valuation included exercise dates, closing stock prices for the Company's common stock, volatility of the Company's common stock, and a proxy risk-free interest rate. Gains (losses) on derivatives are included in "Gain (loss) on derivatives" in the Consolidated Statement of Operations.

#### Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. An allowance for doubtful accounts, if necessary, represents our best estimate of the amount of probable credit losses in our existing accounts receivable. We determine the allowance based on historical write-off experience and current exposures identified. We review our allowance for doubtful accounts monthly. Past due balances over 90 days and over a specified amount are reviewed individually for collectibility. All other balances are reviewed on a pooled basis by type of receivable. Account balances are charged off against the allowance when we feel it is probable the receivable will not be recovered. We do not have any off-balance-sheet credit exposure related to our customers.

#### Inventories

Inventories are valued at the lower of cost (first-in, first-out) or market. The Company provides estimated inventory allowances for excess, slow moving and obsolete inventory as well as inventory whose carrying value is in excess of net realizable value.

## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## Property, Plant, and Equipment

Property, plant and equipment are stated at cost and depreciated using primarily the straight-line method over their estimated useful lives:

Leasehold improvements	Lesser of the life of the lease or the useful life of the improvement
Computers and related software	3 to 5 years
Machinery and equipment	8 to 10 years
Office furniture, equipment and fixtures	2 to 10 years

Significant additions or improvements extending assets' useful lives are capitalized; normal maintenance and repair costs are expensed as incurred. The costs of fully depreciated assets remaining in use are included in the respective asset and accumulated depreciation accounts. When items are sold or retired, related gains or losses are included in net (loss) income.

## Income Taxes

The Company accounts for taxes in accordance with SFAS No. 109, *Accounting for Income Taxes* ("SFAS No. 109"), which requires the use of the asset and liability method of accounting for income taxes. Under the asset and liability method, deferred income taxes are recognized for the tax consequences of "temporary differences" by applying enacted statutory tax rates applicable for future years to differences between financial statement and tax bases of existing assets and liabilities. Under SFAS No. 109, the effect of tax rate changes on deferred taxes is recognized in the income tax provision in the period that includes the enactment date. The provision for taxes is reduced by investment and other tax credits in the years such credits become available. A valuation allowance is recorded to reduce the carrying amounts of deferred tax assets unless it is more likely than not those assets will be realized.

## Revenue Recognition

The Company applies the guidance within SEC Staff Accounting Bulletin ("SAB") No. 104, *Revenue Recognition* in the evaluation of its contracts to determine when to properly recognize revenue. Under SAB No. 104, revenue is recognized when title and risk of loss have passed to the customer, there is persuasive evidence of an arrangement, the fee is fixed or determinable, delivery has occurred or services have been rendered, the sales price is determinable, and collectibility is reasonably assured.

## Product Revenue

Product revenue is recognized when there is persuasive evidence of an arrangement, the collection of a fixed fee is probable or determinable, delivery of the product to the customer or distributor has occurred, at which time title generally is passed to the customer or distributor, all of which generally occur upon shipment of the product. If the product requires installation to be performed by the Company, all revenue related to the product is deferred and recognized upon the completion of the installation. If the product requires specific customer acceptance, revenue is deferred until customer acceptance occurs or the acceptance provisions lapse, unless the Company can objectively and reliably demonstrate that the criteria specified in the acceptance provisions are satisfied.

The Company defers recognition of its initial micro fuel cell product-related revenue at the time of delivery and recognizes revenue as the continued warranty obligation expires. The costs associated with the product and warranty obligations are expensed as they are incurred. The Company's initial shipment during 2004 and other initial shipments of its micro fuel cell products are customer specific arrangements that included fuel cell systems and continued warranty support. While contract terms require payment upon delivery of systems and are not contingent on the achievement of specific milestones or other substantive performance, any continuing obligation to warranty the product results in the Company deferring recognition of product-related revenue and recognizing product-related revenue once warranty obligations expire. Revenue is recorded in the Consolidated Statements of Operations in the line titled "Other income (expense), net."

As the Company gains commercial experience, including field experience relative to warranty based on the sales of its initial products, in future periods, the Company may recognize product-related revenue upon delivery of the product or may continue to defer recognition, based on application of appropriate guidance within SAB No. 104, or changes in the manner contractual agreements are structured, including agreements with distribution partners.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

MTI Instruments, a wholly-owned subsidiary of MTI, currently has distributor agreements in place for (1) the domestic sale of its semiconductor products and (2) for the international sale of general instrument and semiconductor products in certain global regions. Such agreements grant a distributor the right of first refusal to act as distributor for such products in the distributor's territory. In return, the distributor agrees to not market other products which are considered by MTI Instruments to be in direct competition with MTI Instruments' products. The distributor is allowed to purchase MTI Instruments' equipment at a price which is discounted off the published domestic/international list prices. Such list prices can be adjusted by MTI Instruments during the term of the distributor agreement, but MTI Instruments must provide advance notice at least 90 days before the price adjustment goes into effect. Generally, payment terms with the distributor are standard net 30 days; however, on occasion, extended payment terms have been granted. Title to the product passes to the distributor upon delivery to the independent carrier (standard "free-on-board" factory), and the distributor is responsible for any required training and/or service with the end-user. The sale (and subsequent payment) between MTI Instruments and the distributor is not contingent upon the successful resale of the product by the distributor. Distributor sales are covered by MTI Instruments' standard one-year warranty and there are no special return policies for distributors.

Some of MTI Instruments' direct sales, particularly sales of semi-automatic and fully-automated semiconductor metrology equipment, involve on-site customer acceptance and/or training. In those instances, revenue recognition does not take place at time of shipment. Instead, MTI Instruments recognizes the sale after the unit is installed and/or training is performed and an on-site acceptance is given by the customer. Agreed-upon acceptance terms and conditions, if any, are negotiated at the time of purchase.

Funded Research and Development Revenue

The Company performs funded research and development for government agencies under both cost reimbursement and fixed-price contracts. Cost reimbursement contracts provide for the reimbursement of allowable costs. On fixed-price contracts, revenue is generally recognized on the percentage of completion method based upon the proportion of costs incurred to the total estimated costs for the contract. Revenue from reimbursement contracts is recognized as the services are performed. In each type of contract, the Company generally receives periodic progress payments or payments upon reaching interim milestones. When the current estimates of total contract revenue for commercial development contracts indicate a loss, a provision for the entire loss on the contract is recorded. Any losses incurred in performing funded research and development projects are recognized as research and development expense as incurred. When government agencies are providing funding they do not expect the government to be the only significant end user of the resulting products. These contracts do not require delivery of products that meet defined performance specifications, but are best efforts arrangements to achieve overall research and development objectives. Included in accounts receivable are billed and unbilled work-in-progress on contracts. Billings in excess of contract revenues earned are recorded as deferred revenue. While the Company's accounting for government contract costs is subject to audit by the sponsoring entity, in the opinion of management, no material adjustments are expected as a result of such audits. Adjustments are recognized in the period made.

#### Commercial Research and Prototype Agreement Income

The Company also applies the guidance in SAB No. 104 in the evaluation of commercially funded fuel cell research and prototype agreements in order to determine when to properly recognize income. Payments received in connection with commercial research and prototype agreements are deferred and recognized on a straight-line basis over the term of the agreement for service-related payments, and for milestone and prototype delivery payments, if and when achieved, revenue is deferred and recognized on a straight-line basis over the remaining term of the agreement. Under this policy, when revenue qualifies for recognition it will be recorded in the Consolidated Statements of Operations in the line "Funded research and development revenue." The costs associated with research and prototype-producing activities are expensed as incurred. Expenses in an amount equal to revenues recognized are reclassified from "Unfunded research and product development" to "Funded research and product development" in the Consolidated Statements of Operations.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Information regarding governmental and commercially funded research and development contracts is as follows:

(Dollars in thousands)

<u>Contract</u>	<u>Contract Type</u>	<u>Expiration</u>
		(5)
\$3,000 thousand DOE <sup>(7)</sup>	B	07/31/07
\$1,250 thousand NYSERDA <sup>(2)</sup>	B	06/30/06
\$ 1 , 0 0 0 t h o u s a n d Samsung <sup>(6)</sup>	C	07/31/07
\$418 thousand SAFT <sup>(1)</sup>	A	12/31/06
\$250 thousand Army ("ARL")	A	09/30/05
\$210 thousand NIST <sup>(3)</sup>	A	06/30/05
\$150 thousand Harris <sup>(4)</sup>	A	06/25/04
\$70 thousand Marine Corps	A	03/31/05

(1)

This is a subcontract with SAFT America Inc. ("SAFT") under the U.S. Army CECOM contract. The purchase order received in connection with this subcontract was revised on November 14, 2006 eliminating Milestone 4. As a result, the contract value was reduced from \$470 thousand to \$418 thousand and the expiration date was extended from September 30 to December 31, 2006.

(2)

Total contract value is \$1,250 thousand consisting of four Phases: Phase I for \$500 thousand was from March 12, 2002 through September 30, 2003; Phase II for \$200 thousand was from October 28, 2003 through October 31, 2004; Phase III for \$348 thousand was from August 23, 2004 through August 31, 2005; and Phase IV for \$202 thousand which commenced on December 14, 2004 and expired on June 30, 2006. Phases I, II and III have been completed. Phase IV expired before it was completed and the Company is working to reinstate this phase.

(3)

This is a subcontract with CSMP under NIST and includes the original contract for \$200 thousand and a contract amendment for \$10 thousand.

(4)

This contract includes the original contract for \$200 thousand, an amendment for \$50 thousand and a 2005 amendment reducing the contract by \$100 thousand.

(5)

Dates represent expiration of contract, not date of final billing.

(6)

This contract includes one up-front payment of \$750 thousand and two milestone payments totaling \$250 thousand for the delivery of acceptable prototypes.

(7)

DOE funding for this contract was suspended in 2006. It is not clear when and if funding will continue on this contract. If additional funding is made available for this contract, the Company expects to request a contract modification and expiration extension.

Contract Type A - Fixed Price Contract.

Contract Type B - Cost Shared Contract.

Contract Type C - Research and Prototype Contract.

The Company's cost-shared contracts require that MTI Micro conduct research and deliver DMFC prototypes pursuant to predefined work plans and schedules. The contracts with NIST (expiration date-6/30/05), NYSERDA (expiration date- 6/30/06) and the DOE (expiration date-7/31/07) result in the following total multi-year contract expenditures by MTI Micro: \$6,696,968, \$2,702,080 and \$6,144,094, and are expected to or have resulted in total multi-year funding of \$3,342,085, \$1,249,736 and \$1,175,000 respectively.

MTI Micro retains ownership of the intellectual property ("IP") generated by MTI Micro under each of its federal government contracts and under contracts with Samsung, Harris and CSMP. Each federal government agency retains a government use license and march-in rights if MTI Micro fails to commercialize technology generated under the contract. In addition, under the New York State Energy Research and Development Authority ("NYSERDA") contract, MTI Micro has the right to elect to retain any invention made under the NYSERDA contract within six months of invention. NYSERDA also retains rights to a government use license for New York State and its political subdivisions for any inventions made under the contract. Additionally, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may potentially be reduced to reflect any New York State jobs created by MTI Micro.

Cost of Product Revenue

Cost of product revenue includes material, labor and overhead. Costs incurred in connection with funded research and development arrangements are included in funded research and product development expenses.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Deferred Revenue

Deferred revenue consists of payments received from customers in advance of services performed, products shipped, installation completion or customer acceptance.

#### Warranty

The Company records a warranty reserve at the time product revenue is recorded based on a historical rate. The reserve is reviewed during the year and is adjusted, if appropriate, to reflect new product offerings or changes in experience. Actual warranty claims are tracked by product line.

#### Accounting for Goodwill and Other Intangible Assets

Intangible assets include patents and trade names. Goodwill and other intangible assets are accounted for in accordance with SFAS No. 142, *Goodwill and Other Intangible Assets*. Intangible assets with finite useful lives are amortized over those periods. Indefinite life intangible assets are tested for impairment annually, and will be tested for impairment between annual tests if an event occurs or circumstances change that would indicate that the carrying amount may be impaired. Definite life assets are tested for impairment whenever events or circumstances indicate that a carrying amount of an asset may not be recoverable. An impairment loss would be recognized when the carrying amount of an asset exceeds the estimated undiscounted cash flows used in determining the fair value of the asset. The amount of the impairment loss to be recorded is calculated by the excess of the assets carrying value over its fair value. Fair value is generally determined using a discounted cash flow analysis. Costs related to internally-developed intangible assets are expensed as incurred.

#### Accounting for Impairment or Disposal of Long-Lived Assets

The Company accounts for impairment or disposal of long-lived assets in accordance with SFAS No. 144, *Accounting for the Impairment or Disposal of Long-Lived Assets*. This Statement addresses financial accounting and reporting for the impairment or disposal of long-lived assets and specifies how impairment will be measured and how impaired assets will be classified in the consolidated financial statements. On a quarterly basis, the Company analyzes the status of its long-lived assets at each subsidiary for potential impairment. As of December 31, 2006, the Company does not believe that any of its long-lived assets have suffered any type of impairment that would require an adjustment to an asset's recorded value.

#### Cash and Cash Equivalents

Cash and cash equivalents consist of cash and highly liquid short-term investments with original maturities of less than three months.

#### Securities Available for Sale

Management determines the appropriate classification of its investments in marketable securities at the time of purchase and reevaluates such determinations at each balance sheet date. Marketable securities for which the Company does not have the intent or ability to hold to maturity are classified as available for sale. Securities available for sale are carried at fair value, with the unrealized gains and losses, net of income taxes, reported as a separate component of shareholders' equity. The Company has had no investments that qualify as trading or held to maturity. Realized gains and losses are included in "Gain (loss) on sale of securities available for sale" in the Consolidated Statements of Operations. The cost of securities sold is based on the specific identification method.

#### Net (Loss) Income per Common Share

The Company reports net (loss) income per basic and diluted common share in accordance with SFAS No. 128, *Earnings Per Share*, which establishes standards for computing and presenting (loss) income per share. Basic earnings per common share are computed by dividing net (loss) income by the weighted average number of common shares outstanding during the reporting period. Diluted (loss) income per share reflects the potential dilution, if any, computed by dividing net (loss) income by the combination of dilutive common share equivalents, comprised of shares issuable under outstanding investment rights, warrants and the Company's share-based compensation plans, and the weighted average number of common shares outstanding during the reporting period. Dilutive common share equivalents include the dilutive effect of in-the-money stock options, which are calculated based on the average share price for each period using the treasury stock method. Under the treasury stock method, the exercise price of a stock option, the amount of compensation cost, if any, for future service that the Company has not yet recognized, and the amount of windfall tax benefits that would be recorded in additional paid-in capital, if any, when the stock option is exercised are assumed to be used to repurchase shares in the current period.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Share-Based Payments

The Company has three share-based employee compensation plans and its majority-owned subsidiary, MTI Micro, has one share-based employee compensation plan, all of which are described more fully in Note 13, Stock Based Compensation.

In December 2004, the Financial Accounting Standards Board ("FASB") revised SFAS No. 123 ("FAS 123R"), *Share-Based Payment*, which establishes accounting for share-based awards exchanged for employee services and requires companies to expense the estimated fair value of these awards over the requisite employee service period. During April 2005, the SEC adopted a rule amending the effective dates for FAS 123R. In accordance with this rule, the accounting provisions of FAS 123R have been adopted by the Company as of January 1, 2006. In March 2005, the SEC issued SAB 107, *Share-Based Payment* ("SAB 107") to assist filers by simplifying some of the implementation challenges of FAS 123R. In particular, SAB 107 provides supplemental implementation guidance on FAS 123R, including guidance on valuation methods, classification of compensation expense, inventory capitalization of share-based compensation cost, income tax effects, disclosures in Management's Discussion and Analysis and several other issues. The Company applied the principles of SAB 107 in conjunction with its adoption of FAS 123R.

Under FAS 123R, share-based compensation cost is measured at the grant date, based on the estimated fair value of the award, and is recognized as expense over the employee's requisite service period. The Company has awards with performance conditions, but no awards with market conditions. The Company adopted the provisions of FAS 123R on January 1, 2006, the first day of the Company's fiscal year, using the modified prospective application, which provided for certain changes to the method for valuing share-based compensation. Under the modified prospective application, prior periods were not revised for comparative purposes. The valuation provisions of FAS 123R apply to new awards and to awards that are outstanding on the effective date and subsequently modified or cancelled. Estimated compensation expense for awards outstanding at the effective date will be recognized over the remaining service period using the compensation cost calculated for pro forma disclosure purposes under the original FASB Statement No. 123, *Accounting for Stock-Based Compensation* ("FAS 123").

In November 2005, the FASB issued Staff Position No. FAS 123(R)-3, *Transition Election Related to Accounting for Tax Effects of Share-Based Payment Awards*. The Company elected to adopt the alternative transition method provided in this FASB Staff Position for calculating the tax effects of share-based compensation pursuant to FAS 123R. This method included a simplified method to establish the beginning balance of the additional paid-in capital



pool related to the tax effects of employee share-based compensation, which is available to absorb tax deficiencies recognized subsequent to the adoption of FAS 123R.

Prior to the adoption of FAS 123R, the Company accounted for stock-based awards to employees and directors using the intrinsic value method in accordance with Accounting Principles Board ("APB") Opinion No. 25, *Accounting for Stock Issued to Employees*, and related Interpretations as permitted under FAS 123. Under the intrinsic value method, stock-based compensation was typically only recognized by the Company due to modifications in option provisions, since the exercise price of the Company's and MTI Micro's common stock options granted to employees and directors usually equaled the fair market value of the underlying stock at the date of grant.

Stock-based compensation represents the cost related to stock-based awards granted to employees and directors. The Company measures stock-based compensation cost at grant date based on the estimated fair value of the award, and recognizes the cost as expense on a straight-line basis (net of estimated forfeitures) over the option's requisite service period. The Company estimates the fair value of stock-based awards using a Black Scholes valuation model. Stock-based compensation expense is recorded in "Selling, general and administrative expenses" and "Unfunded research and product development expenses" in the Consolidated Statements of Operations based on the employees' respective function.

The Company records deferred tax assets for awards that potentially can result in deductions on the Company's income tax returns based on the amount of compensation cost recognized and the Company's statutory tax rate. Differences between the deferred tax assets recognized for financial reporting purposes and the actual tax deduction reported on the Company's income tax return are recorded in Additional Paid-In Capital (if the tax deduction exceeds the deferred tax asset) or in the Consolidated Statement of Operations (if the deferred tax asset exceeds the tax deduction and no historical pool of windfall tax benefits exists). No tax benefit was recognized related to share-based compensation since we have incurred net operating losses and we have established a full valuation allowance to offset all the potential tax benefits associated with these deferred tax assets. The Company continues to record the fair market value of stock options and warrants granted to non-employees and non-directors in exchange for services in accordance with EITF Issue No. 96-18, *Accounting for Equity Instruments That Are Issued to Other Than Employees for Acquiring, or in Conjunction with Selling, Goods or Services*, in the Consolidated Statements of Operations.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Advertising

The costs of advertising are expensed as incurred. Advertising expense was approximately \$110, \$45 and \$41 thousand in 2006, 2005 and 2004, respectively.

#### Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents, marketable securities, trade accounts receivable and unbilled contract costs.

The Company's trade accounts receivable and unbilled contract costs and fees are primarily from sales to commercial customers and U.S. government and state agencies. The Company does not require collateral and has not historically experienced significant credit losses related to receivables or unbilled contract costs and fees from individual customers or groups of customers in any particular industry or geographic area.

The Company deposits its cash and invests in marketable securities primarily through commercial banks and investment companies. Credit exposure to any one entity is limited by Company policy.

#### Research and Development Costs

The Company expenses research and development costs as incurred.

#### Comprehensive (Loss) Income

Comprehensive (loss) income includes net (loss) income, as well as changes in shareholders' equity, other than those resulting from investments by shareholders (i.e., issuance or repurchase of common shares and dividends).

#### Effect of Recent Accounting Pronouncements

In February 2007, the FASB issued SFAS No. 159, *The Fair Value Option for Financial Assets and Financial Liabilities* ("SFAS No. 159"). SFAS No. 159 provides companies with an option to report selected financial assets and financial liabilities at fair value. Unrealized gains and losses on items for which the fair value option has been elected are reported in earnings at each subsequent reporting date. SFAS No. 159 is effective beginning January 1, 2008. We are currently reviewing the provisions of SFAS No. 159 to determine any impact for the Company.

In September 2006, the FASB issued SFAS No. 158, *Employers' Accounting for Defined Benefit Pension and Other Postretirement Plans, an amendment of FASB Statements No. 87, 88, 106, and 132(R)* ("SFAS No. 158"). Among other items, SFAS No. 158 requires recognition of the over-funded or under-funded status of an entity's defined benefit postretirement plan as an asset or liability in the financial statements, requires the measurement of defined benefit postretirement plan assets and obligations as of the end of the employer's fiscal year, and requires recognition of the funded status of defined benefit postretirement plans in other comprehensive income. This Statement is effective for fiscal years ending after December 15, 2006. Since the Company does not maintain any defined benefit or other postretirement plans, the adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

In September 2006, the FASB issued SFAS No. 157, *Fair Value Measurements* ("SFAS No. 157"). SFAS No. 157 establishes a common definition for fair value to be applied to U.S. GAAP guidance requiring use of fair value, establishes a framework for measuring fair value, and expands disclosure about such fair value measurements. This Statement is effective for fiscal years beginning after November 15, 2007. The Company is currently assessing the impact of SFAS No. 157 on the Company's Consolidated Financial Statements.

In September 2006, the SEC issued SAB 108, *Considering the Effects of Prior Year Misstatements when Quantifying Misstatements in Current Year Financial Statements* ("SAB 108"). SAB 108 provides guidance on the consideration of the effects of prior year misstatements in quantifying current year misstatements for the purpose of determining whether the current year's financial statements are materially misstated. This Bulletin is effective for fiscal years ending after November 15, 2006. The adoption of this Bulletin did not impact the Company's Consolidated Financial Statements.

In July 2006, the FASB issued FASB Staff Position ("FSP") FIN 48, *Accounting for Uncertainty in Income Taxes* ("FSP FIN 48") an interpretation of SFAS No. 109, *Accounting for Income Taxes*. FSP FIN 48 prescribes a recognition threshold and measurement

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. Interpretation 48 is effective for fiscal years beginning after December 15, 2006; therefore, we will be required to adopt this Interpretation in the first quarter of 2007. We are currently evaluating FSP FIN 48 but have not yet determined the impact, if any; the adoption of this Interpretation will have on the Company's Consolidated Financial Statements.

In March 2006, the FASB issued SFAS No. 156, *Accounting for Servicing of Financial Assets*-an amendment of FASB *Statement No. 140* ("SFAS No. 156") that provides guidance on accounting for separately recognized servicing assets and servicing liabilities. In accordance with the provisions of SFAS No. 156, separately recognized servicing assets and servicing liabilities must be initially measured at fair value, if practicable. Subsequent to initial recognition, the Company may use either the amortization method or the fair value measurement method to account for servicing assets and servicing liabilities within the scope of this Statement. An entity should adopt the Statement as of the beginning of its first fiscal year that begins after June 15, 2006, so the Company will adopt SFAS No. 156 in fiscal year 2007. The adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

In February 2006, the FASB issued SFAS No. 155, *Accounting for Certain Hybrid Financial Instruments*-an amendment of FASB *Statements No. 133 and 140* ("SFAS No. 155"), to permit fair value remeasurement for any hybrid financial instrument that contains an embedded derivative that otherwise would require bifurcation in accordance with the provisions of SFAS No. 133, *Accounting for Derivative Instruments and Hedging Activities*. This Statement is effective for all financial instruments acquired or issued after the beginning of an entity's first fiscal year that begins after June 15, 2006. The Company will adopt SFAS No. 155 in fiscal year 2007. The adoption of this Statement is not expected to have a material effect on the Company's Consolidated Financial Statements.

In April 2006, the FASB issued FSP FIN 46(R)-6, *Determining the Variability to Be Considered in Applying FASB Interpretation No. 46(R)* ("FSP FIN 46 (R)-6") that will become effective beginning third quarter of 2006. FSP FIN No. 46(R)-6 clarifies that the variability to be considered in applying this Interpretation shall be based on an analysis of the design of variable interest entity. The adoption of this FSP is not expected to have a material effect on the Company's Consolidated Financial Statements.

In the first quarter of 2006, the Company adopted SFAS No. 154, *Accounting Changes and Error Corrections*-a replacement of *APB Opinion No. 20 and FASB Statement No. 3* ("SFAS No. 154"). SFAS No. 154 changed the requirements for the accounting for and reporting of a voluntary change in accounting principle. The adoption of this Statement did not affect the Company's Consolidated Financial Statements in the period of adoption. Its effects on future periods will depend on the nature and significance of any future accounting changes subject to this statement.

Beginning January 2006, the Company adopted SFAS No. 151, *Inventory Costs*-an amendment of *ARB No. 43, Chapter 4* ("SFAS No. 151"). SFAS No. 151 requires certain abnormal expenditures to be recognized as expenses in the current period versus being capitalized in inventory. It also requires that the amount of fixed production overhead allocated to inventory be based on the normal capacity of the production facilities. The adoption of this statement did not have a material effect on the Company's Consolidated Financial Statements.

Beginning January 2006, the Company adopted FSP FIN 47, *Accounting for Conditional Asset Retirement Obligations*, which is an interpretation of SFAS No. 143, *Accounting for Asset Retirement Obligations*. The interpretation requires a liability for the fair value of a conditional asset retirement obligation be recognized if the fair value of the liability can be reasonably estimated. The adoption of this statement did not have a material effect on the Company's Consolidated Financial Statements.

Beginning January 2006, the Company adopted SFAS No. 153, *Exchanges of Non-Monetary Assets* ("SFAS No. 153"), an amendment of *APB Opinion No. 29*. SFAS No. 153 which addresses the measurement of exchanges of non-monetary assets and redefines the scope of transactions that should be measured based on the fair value of the assets exchanged. The adoption of this statement did not affect the Company's Consolidated Financial Statements in the period of adoption. Its effects on future periods will depend on the nature and significance of any future transactions subject to this statement.

Reclassifications and Revisions

Certain 2004 and 2005 amounts have been reclassified to conform to the 2006 presentation. The reclassifications have no effect on total revenues, total expenses, net loss or shareholders' equity as previously reported.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The reclassifications impact our Consolidated Statements of Shareholders' Equity and Comprehensive Income in the following ways:

-Paid-In Capital MTI MicroFuel Cell investment now only includes the minority accounting impact for share-based compensation charges related to MTI Micro.

-Paid-In Capital Share-based compensation now includes the total share-based compensation charges related to MTI Micro, previously included in Paid-In Capital MTI MicroFuel Cell investment; and the effect of both stock option compensation and restricted stock compensation which had previously been presented as separate items.

The reclassifications impact our Consolidated Statements of Cash Flows in the following way:

-Stock-based compensation now includes both stock based compensation and the minority interest portion of stock-based compensation.

3. Accounts Receivable and Allowance for Doubtful Accounts

Receivables consist of the following at December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
U.S. and State Government:		
Amount billable	\$ 194	\$ 98
Amount billed	9	373

Retainage	<u>0</u>	<u>35</u>
Total U.S. and State Government	<u>203</u>	<u>506</u>
Commercial	<u>1,410</u>	<u>492</u>
Total	<u>\$ 1,613</u>	<u>\$ 998</u>

The balances billed but not paid by customers pursuant to retainage provisions in contracts are due upon completion of the contracts and acceptance by the customer. Based on the Company's experience, most retainage amounts are expected to be collected within the ensuing year.

As of December 31, 2006 and 2005, the Company concluded that a reserve for doubtful trade accounts receivable was not considered necessary.

#### 4. Issuance of Stock by Subsidiary

MTI Micro was formed on March 26, 2001 and as of December 31, 2006, the Company owns approximately 94% of MTI Micro's outstanding common stock.

On March 31, 2006, MTI Micro issued 1,400,000 shares of its common stock at a price of \$2.50 per share to the Company in connection with the conversion of its \$3,500 thousand loan receivable to equity; between April 11 and April 18, 2006, MTI Micro issued 1,662,400 shares of its common stock at a price of \$2.50 per share to the Company in connection with the transfer of \$4,156 thousand worth of Plug Power common stock to MTI Micro; on May 27, 2006, MTI Micro issued 50,158 shares of its common stock at a price of \$2.32 to the Company as compensation for the minority shareholder benefit in connection with the Company issuing Company options to MTI Micro employees; on September 1, 2006, MTI Micro issued 56,055 shares of its common stock at a price of \$3.10 per share to the Company as compensation for the minority shareholder benefit in connection with the Company issuing Company options to MTI Micro employees; on September 30, 2006, MTI Micro issued 2,574,627 shares of its common stock at a price of \$1.34 per share to the Company in connection with the conversion of its \$3,450 thousand loan receivable to equity; on November 11, 2006, MTI Micro issued 1,960,506 shares of its common stock at a price of \$1.06 per share to the Company in connection with the transfer of \$2,070 thousand worth of Plug Power common stock to MTI Micro; on December 1, 2006, MTI Micro issued 739 shares of its common stock at a price of \$1.61 per share to the Company as compensation for the minority shareholder benefit in connection with the Company issuing Company options to MTI Micro employees; and on December 31, 2006, MTI Micro issued 3,772,727 shares of its common stock at a price of \$1.10 per share to the Company in connection with the conversion of its \$4,150 thousand loan receivable to equity.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

On December 31, 2005, as a result of the MTI and MTI Micro option exchange, MTI Micro issued 105,701 shares of its common stock at a price of \$2.22 per share to the Company as compensation for minority shareholder benefit in connection with the transaction. Additionally, on December 31, 2005, MTI Micro issued 1,103,604 shares of its common stock at a price of \$2.22 per share to the Company in connection with the conversion of its \$2,450 thousand loan receivable to equity.

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On April 7, 2004, MTI Micro sold 3,218,885 and 215,000 shares of MTI Micro common stock to the Company and a group of private investors, respectively, at a price of \$4.66 per share for approximately \$15,000 thousand and \$1,000 thousand, respectively. Further, on May 20, 2004, MTI Micro sold 215,000 shares of MTI Micro common stock to a private investor at a price of \$4.66 per share for approximately \$1,000 thousand.

The (decrease) increase in the Company's paid-in-capital of \$(1,284), \$(301) and \$343 thousand in 2006, 2005 and 2004, respectively, represents the changes in the Company's equity investment in MTI Micro, which resulted from the (anti-dilutive)/dilutive impact of the Company's investments into and third-party stock transactions in MTI Micro stock.

5. Inventories

Inventories, net consist of the following at December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Finished goods	\$ 279	\$ 351
Work in process	238	92
Raw materials, net	<u>699</u>	<u>615</u>
	<u>\$ 1,216</u>	<u>\$ 1,058</u>

6. Property, Plant and Equipment

Property, plant and equipment consist of the following at December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Leasehold improvements	\$ 1,213	\$ 1,191
Computers and related software	2,186	2,225
Machinery and equipment	3,625	2,522
Office furniture and fixtures	<u>303</u>	<u>281</u>
	7,327	6,219
Less accumulated depreciation	<u>4,401</u>	<u>3,724</u>
	<u>\$ 2,926</u>	<u>\$ 2,495</u>

Depreciation expense was \$1,100, \$1,253 and \$911 thousand for 2006, 2005 and 2004, respectively. Repairs and maintenance expense was \$75, \$105 and \$111 thousand for 2006, 2005 and 2004, respectively.

7. Securities Available for Sale

Securities available for sale are classified as current assets and accumulated net unrealized gains (losses) are charged to other comprehensive income (loss).

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The principal components of the Company's securities available for sale consist of the following at:

(Dollars in thousands, except stock price and share data)

<u>Security</u>	<u>Book</u> <u>Basis</u>	<u>Unrealized</u> <u>Gain</u>	<u>Recorded</u> <u>Fair Value</u>	<u>Quoted</u> <u>Market</u> <u>Price</u> <u>Per</u> <u>NASDAQ</u>	<u>Ownership</u>	<u>Shares</u>
<u>December 31,</u> <u>2006</u>						
Plug Power	\$ <u>4,602</u>	\$ <u>5,473</u>	\$ <u>10,075</u>	\$ 3.89	<u>2.99</u>	<u>2,589,936</u>
					%	
<u>December 31,</u> <u>2005</u>						
Plug Power	\$ <u>6,562</u>	\$ <u>12,385</u>	\$ <u>18,947</u>	\$ 5.13	<u>4.31%</u>	<u>3,693,436</u>

The book basis roll forward of Plug Power securities as of December 31 is as follows:

## Plug Power - Current

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Securities available for sale, beginning of period	\$ 6,562	\$ 5,141
Sale of shares	(1,960)	(178)
Transfer 900,209 shares from restricted on 6/30/05	=	<u>1,599</u>
Securities book basis	4,602	6,562
Unrealized gain on securities available for sale	<u>5,473</u>	<u>12,385</u>
Securities available for sale, end of period	\$ <u>10,075</u>	\$ <u>18,947</u>

## Plug Power - Restricted

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Securities available for sale, beginning of period	\$ -	\$ 4,797
Sale of shares	-	(3,198)
Transfer 900,209 shares to current on 6/30/05	-	(1,599)
Securities book basis	=	=
Securities available for sale - restricted, end of period	\$ -	\$ -

Accumulated unrealized gains related to securities available for sale for each of the years ended December 31 are as follows:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Accumulated unrealized gains	\$ 5,473	\$ 12,385
Accumulated deferred tax expense on unrealized gains	<u>(4,489)</u>	<u>(6,402)</u>
		)
Accumulated net unrealized gains	\$ <u>984</u>	\$ <u>5,983</u>

Realized gains related to Plug Power securities available for sale sold during each of the years ended December 31 are as follows:

(Dollars in thousands, except shares)	<u>2006</u>	<u>2005</u>
Shares sold	1,103,500	1,899,791



Proceeds	\$ 6,249	\$ 1,969
Total net gain on sales	\$ 4,289	\$ 10,125

The Company regularly reviews its securities available for sale to determine if any declines in value of those securities available for sale are other than temporary. The Company assesses whether declines in the value of its securities in publicly traded companies, measured by comparison of the current market price of the securities to the carrying value of the Company's securities, are considered to be other than temporary based on factors that include the length of time carrying value exceeds fair market value, the Company's assessment of the financial condition and the near term prospects of the companies and the Company's intent with respect to the securities.

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8. Income Taxes

Deferred tax assets and liabilities are determined based on the temporary differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates.

Income tax (expense) benefit for each of the years ended December 31 consists of the following:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Operations before minority interest			
Federal	\$ -	\$ -	\$ 96
State	(5)	M4	(95)
Deferred	<u>(1,890)</u>	<u>(1,641)</u>	<u>3,563</u>
Total	\$ <u>(1,895)</u>	\$ <u>(1,587)</u>	\$ <u>3,564</u>

Income tax benefit (expense) allocated directly to shareholders' equity for each of the years ended December 31 is as follows:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Derivative tax asset - Deferred	\$ -	\$ -	\$ 696

Change in unrealized (gain) loss on securities available for sale:

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Deferred tax benefit (expense)	I,285	I,448	J,550
Valuation allowance (expense)	(1,285)	(1,448)	-
Tax effect of reclassification adjustment for gains included in net income (loss)	I,913	K,293	I,051
Expenses for employee stock options recognized differently for financial reporting/tax purposes:			
Federal tax benefit	-	87	J94
Valuation allowance (expense)	=	(87)	=
	\$ <u>1,913</u>	\$ <u>3,293</u>	\$ <u>4,591</u>

The significant components of deferred income tax (expense) benefit from operations before minority interest for each of the years ended December 31 consists of the following:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Deferred tax benefit (expense)	\$ 805	\$ 238	\$ (570)
Net operating loss carry forward	3,983	M,673	4,133
Valuation allowance	(4,765)	(4,259)	-
Disproportionate tax effect of reclassification adjustment for gains included in net income (loss)	(1,913)	(3,293)	=
	\$ <u>(1,890)</u>	\$ <u>(1,641)</u>	\$ <u>3,563</u>

The Company's effective income tax rate from operations before minority interest differed from the Federal statutory rate for each of the years ended December 31 is as follows:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Federal statutory tax rate		34%	34%
State taxes, net of federal tax effect		3	3
Change in valuation allowance		(37)	(29)
Disproportionate tax effect of reclassification adjustment for gains included in net			

income (loss)	(13)	(19)	-
Other	<u>(2)</u>	=	=
	<u>(15)</u>	<u>(11)</u>	<u>39</u>
	%	%	%

Pre-tax loss before minority interests was \$12,980, \$14,949 and \$9,121 thousand for 2006, 2005 and 2004, respectively.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The deferred tax assets and liabilities as of December 31 consist of the following tax effects relating to temporary differences and carry forwards:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Current deferred tax (liabilities) assets:		
Inventory valuation	\$ 60	\$ 19
Inventory capitalization	14	14
Securities available for sale	(3,039)	(6,166)
Vacation pay	161	180
Warranty and other sale obligations	8	8
Other reserves and accruals	<u>58</u>	<u>(23)</u>
	(2,738)	(5,968)
Valuation allowance	<u>(256)</u>	<u>(140)</u>
Net current deferred tax liabilities	\$ <u>(2,994)</u>	\$ <u>(6,108)</u>
Noncurrent deferred tax assets (liabilities):		

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Net operating loss	\$ 19,661	\$ 15,678
Property, plant and equipment	(239)	(156)
Stock options	1,379	594
Other	239	239
Research and development tax credit	459	459
Alternative minimum tax credit	<u>54</u>	<u>54</u>
	21,553	16,868
Valuation allowance	<u>(18,559)</u>	<u>(10,783)</u>
		)
Noncurrent net deferred tax assets	\$ <u>2,994</u>	\$ <u>6,085</u>

The valuation allowance at December 31, 2006 and 2005 was \$18,815 and \$10,923 thousand, respectively. The net change in the valuation allowance was \$7,892 thousand in 2006 and \$9,087 thousand in 2005. The valuation allowance at December 31, 2006 and 2005 reflects the estimate that it is more likely than not that the net deferred tax assets may not be realized.

Included in the financial statement line "Income taxes payable" as of December 31, 2006 and 2005 is \$79 thousand and \$56 thousand, respectively, representing the Company's best estimate of reserves for potential adjustments related to an ongoing New York State tax examination for the years 2002 through 2004. Although the outcome of tax examinations are always uncertain, the Company believes that adequate amounts of tax and interest have been provided for any adjustments that may result for these years.

At December 31, 2006, the Company has unused Federal net operating loss carry forwards of approximately \$50,529 thousand. Of these carry forwards, \$1,457 thousand represents windfall tax benefits from stock option transactions, the tax effect of which are not included in the Company's net deferred tax assets. The Federal net operating loss carry forwards, if unused, will begin to expire in 2010. As of December 31, 2006, the Company has approximately \$459 thousand of research and development tax credit carry forwards, which begin to expire in 2018, and approximately \$54 thousand of alternative minimum tax credit carry forwards, which have no expiration date.

#### 9. Accrued Liabilities

Accrued liabilities consist of the following at December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Salaries, wages and related expenses	\$ 781	\$ 680
Acquisition and disposition costs	363	363
Legal and professional fees	311	148
Warranty and other sale obligations	19	20

Commissions	139	42
Other	<u>857</u>	<u>299</u>
	<u>\$ 2,470</u>	<u>\$ 1,552</u>

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

## 10. Shareholders' Equity

## Common Shares

Changes in common shares are as follows for the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Balance, beginning	38,965,937	38,650,949	35,776,510
Issuance of shares for stock option exercises	719,791	148,575	193,768
Issuance of shares for private placement shares	-	66,413	2,680,671
Issuance of shares for restricted and unrestricted stock grants	76,080	100,000	-
Issuance of shares for capital raise	6,055,556	-	-
Issuance of shares for anti-dilution penalty	<u>267,314</u>	=	=
Balance, ending	<u>46,084,678</u>	<u>38,965,937</u>	<u>38,650,949</u>

## Treasury Stock

Changes in treasury stock are as follows for the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Balance, beginning	8,040,736	8,040,736	8,035,974
Shares acquired for cash	=	=	<u>4,762</u>
Balance, ending	<u>8,040,736</u>	<u>8,040,736</u>	<u>8,040,736</u>

## Sale of Common Stock

## Capital Raise:

On December 15, 2006, the Company entered into agreements with certain investors to sell 6,055,556 shares of common stock and warrants to purchase 3,027,778 shares of common stock for an aggregate purchase price of

\$10,900 thousand. The common stock and warrants were sold in units, with each unit consisting of 100 shares of common stock and a warrant to purchase 50 shares of common stock, at an exercise price of \$2.27 per share. Each non-certificated unit was sold at a negotiated price of \$180.00.. The shares of common stock and warrants are immediately separable and were issued separately. (see Warrants Issued below). The common stock, the warrants and shares issuable upon exercise of the warrants are registered with the SEC on the Company's filed and effective registration statement.

In connection with the 2006 capital raise, in December 2006, the Company paid Rodman & Renshaw, LLC placement fees, recorded in equity against the proceeds of the capital raise, of \$570 thousand.

#### Private Placement:

The Company entered into a financing transaction with Fletcher on January 29, 2004 and amended the terms of such transaction on May 4, 2004. Fletcher purchased 2,680,671 shares of our common stock for \$18,000 thousand pursuant to such financing transaction - 1,418,842 shares at \$7.048 per share and 1,261,829 shares at \$6.34 per share. In addition, Fletcher had the right to purchase an additional \$20,000 thousand of the Company's common stock, on one or more occasions, at a price of \$6.023 (adjusted from \$6.34) per share at any time prior to December 31, 2006. Fletcher had the right to receive Company shares without payment upon the occurrence of certain events, including but not limited to, failing to register for resale with the SEC shares purchased by Fletcher on the agreed upon time table, a restatement of the Company's financial statements, change of control of the Company and issuance of securities at a price below Fletcher's purchase price. We have filed registration statements covering all of the shares purchased by Fletcher.

We filed a registration statement on January 6, 2005 covering the resale of 1,261,829 shares of our common stock purchased by Fletcher on December 22, 2004. The Company failed to meet its contractual obligation with Fletcher to have such registration statement declared effective by March 22, 2005 and therefore under the terms of the Fletcher agreement we were required to issue additional shares of common stock to Fletcher and the exercise price for the Fletcher additional investment rights has been reduced to \$6.023 per share. We were required to issue a number of shares of common stock that resulted in Fletcher having effectively made its December 2004 investment at a price per share that was lower than the actual price paid. We refer to this reduced exercise price as the "deemed exercise price." More specifically, for each month during which we fail to satisfy the registration requirement, the deemed exercise price is reduced by \$0.317 per share. As a consequence, on April 20, 2005 we issued 66,413 shares of common stock to Fletcher without any additional payment required by Fletcher, representing a deemed exercise price for Fletcher's December

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

2004 investment of \$6.023 per share. In addition, since we are required to file a registration statement covering the resale of any such additional shares issued to Fletcher, we amended the registration statement initially filed in January 2005 to include the additional 66,413 shares of common stock. That registration statement, covering the resale of 1,328,242 shares of common stock, was declared effective by the SEC on April 21, 2005.

#### Plug Power Shares:

On June 24, 2005, Fletcher notified the Company of its election to exercise in full its right to purchase from the Company certain shares of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from the Company at a price of \$0.7226 per share, with proceeds to the Company

of \$1,301 thousand. This transaction closed on June 28, 2005 and, in connection with this exercise, the Company recognized a loss on the derivative immediately prior to exercise of \$7,173 thousand and a gain on the sale of Plug Power common shares of \$9,635 thousand.

The Company placed 2,700,000 shares of Plug Power common stock in escrow that was available for purchase by Fletcher in certain instances. Fletcher could, on one or multiple occasions, from June 1, 2005 to December 31, 2006, exercise its right to purchase from us a number of shares of Plug Power common stock totaling \$10,000 thousand divided by the prevailing price (as defined below) per share of Plug Power common stock, but only to the extent of the number of shares remaining in escrow. Commencing immediately after the SEC declared effective on May 20, 2004 the registration statement relating to shares of our common stock owned by Fletcher, we had the right to have 250,000 of such shares released from escrow to us, on a monthly basis, in the event that on any day during such month, the prevailing price of our common stock exceeds \$6.343 (which price may have been adjusted to reflect stock splits, recombinations, stock dividends or the like).

The exercise price for the Plug Power investment right was \$10,000 thousand less the positive difference between \$18,000 thousand and the product of the sum of 2,680,671 shares multiplied by the prevailing price per share of our common stock on the date Fletcher elected to exercise such right, all divided by the quotient obtained by dividing \$10,000 thousand by the prevailing price of Plug Power common stock on the date

Fletcher elected to exercise such right. As used herein, a prevailing price is the average of the daily volume-weighted average price per share of common stock during the sixty-business-day period ending three days prior to the date Fletcher elects to exercise such right, provided however that the price may not exceed the average of the daily volume-weighted average prices for any ten business days within such sixty-business day period.

#### Additional Investment Rights:

The additional investment rights provide Fletcher with the right, but not the obligation, to purchase in a single purchase or multiple purchases, up to an additional \$20,000 thousand of our common stock at any time prior to December 31, 2006 at a price per share equal to \$6.023 (adjusted from \$6.34). This investment right expired unexercised on December 31, 2006.

#### Change of Control

: In the event of a change of control of our company prior to sixty days after the expiration of the additional investment term, we may have to issue additional shares of our common stock to Fletcher and the additional investment rights may be accelerated. If the consideration per share paid to our shareholders in the change of control transaction is less than twice the amount of the price per share paid by Fletcher for any of its investments pursuant to the agreement with Fletcher or the certificate of additional investment rights, then we must issue to Fletcher a number of shares of our common stock such that all of its investments will have been effectively made at a price per share equal to such per share change of control consideration multiplied by 0.5.

#### Dilutive Issuances:

If, after December 31, 2004 and ending December 31, 2006, we issued any equity securities at a price below \$7.048 as it relates to the initial \$10,000 thousand investment and \$6.34 as it relates to any additional investments which have been made, the exercise price for the additional investment rights would be adjusted to provide Fletcher "weighted average" anti-dilution protection and we would have to issue to Fletcher a number of additional shares such that all prior investments will have been effectively made at such adjusted exercise price.

On December 7, 2006, Fletcher agreed to lower the dilutive issuance provision by 25% of the original calculation for the remainder of the provision's original term and in connection with the issuance of common stock in the Company's

December 2006 capital raise, the Company issued Fletcher 267,314 of its common shares. Through a release dated January 5, 2007, between the Company and Fletcher, the Company is not required to register these shares with the SEC since these shares may be sold by Fletcher pursuant to Rule 144(k) under the Securities Act of 1933, as amended. In very limited circumstances, the Company may be required to register these shares in the future if requested by Fletcher.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Placement and Amendment Fees:

In connection with the 2004 Private Placement, in February 2004 the Company paid placement fees, recorded in equity against the proceeds of the private placement, of \$600 thousand to Chicago Investment Group, LLC and issued a warrant to purchase 28,377 shares of the Company's common stock at an exercise price of \$10.572 per share. The warrant was not exercisable until February 5, 2005 and expired unexercised on February 5, 2006. In connection with the May 2004 amendment of the private placement, the Company paid advisory fees of \$300 thousand to Citigroup Global Markets Inc. In conjunction with the Company's December 2006 capital raise, the Company paid a securities placement fee of \$570 thousand to Rodman and Renshaw, LLC.

Reservation of Shares

The Company has reserved common shares for future issuance as follows as of December 31, 2006:

Stock options outstanding	5,554,194
Stock options available for issuance	2,096,159
Warrants outstanding	<u>3,027,778</u>
Number of common shares reserved	<u>10,678,131</u>

Change in Par Value

On June 28, 2005, shareholders of the Company approved an Amendment to the Company's Restated Certificate of Incorporation, as amended, to reduce the par value of the Company's common stock from \$1.00 to \$.01 per share. The reduction in the par value of the Company's common stock was effected on the Company's balance sheet by a reduction in the common stock par value account and a corresponding increase in the additional paid-in capital account. The reduction in the par value does not change the number of authorized shares of the Company's common stock. All per share amounts have been adjusted to retroactively give effect to the change in par value.

Completion of Option Exchange with MTI Micro Option Holders

On December 30, 2005, the Company issued options to acquire 1,021,213 shares of MTI common stock, par value \$0.01 per share, to certain employees, officers and directors of MTI and MTI Micro who previously held MTI Micro options (the "Optionees"). The options have an exercise price per share of \$2.80 (the closing price of the Company's common stock on December 30, 2005). The Company issued the options pursuant to a November 28, 2005 stock option exchange offer. MTI Micro options outstanding for a purchase of a total of 2,392,947 shares of MTI Micro common stock, par value \$0.01 per share, were tendered by the Optionees and then cancelled by MTI Micro as a



result of this exchange. Each option is exercisable for one share of MTI common stock. The exchange rate was one option for each two MTI Micro options, rounded down to the nearest whole option, or if an individual had an MTI Micro option balance in excess of 150,000 options, then at a rate of one option for each four MTI Micro options in excess of 150,000 options. The exchange was accounted for in accordance with EITF 00-23 Issue 1, *Issues Related to the Accounting for Stock Compensation under APB Opinion No. 25 and FASB Interpretation No. 44* and no compensation expense was recorded.

#### Completion of Option Exchange

On December 22, 2003, the Company announced the completion of the first phase of its stock option exchange offer. A total of 757,000 options with an average exercise price of approximately \$19 per share were tendered by employees, officers and directors and then cancelled by the Company in exchange for the future issuance of options at a one-for-two ratio. New options totaling 341,000 were issued in the final phase of the exchange offer on June 23, 2004 at an exercise price of \$6.17 per share to employees, officers and directors who were employed by the Company or served as directors of the Company from December 22, 2003, the acceptance date, through June 23, 2004. The exchange was accounted for in accordance with EITF 00-23 Issue 36(c) and no compensation expense was recorded.

#### Warrants Issued

On December 20, 2006, the Company issued warrants to investors to purchase 3,027,778 shares of the Company's common stock at an exercise price of \$2.27 per share. The estimated fair value of this warrant at the date issued was \$1.27 per share, using a Black-Scholes Option Pricing model and assumptions similar to those used for valuing the Company's employee share-based compensation. The warrants cannot be exercised until June 20, 2007 and expire on December 19, 2011.

On February 5, 2004, the Company issued to Chicago Investment Group, LLC a warrant to purchase 28,377 shares of the Company's common stock at an exercise price of \$10.572 per share. The estimated fair value of this warrant at the date issued was \$1.39 per share using a Black-Scholes Option Pricing model and assumptions similar to those used for valuing the Company's stock options. The warrant could not be exercised until February 5, 2005 and expired unexercised on February 5, 2006.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### 11. Retirement Plan

The Company maintains a voluntary savings and retirement plan under Internal Revenue Code Section 401(k) covering substantially all employees. Employees must complete six months of service and have attained the age of twenty-one prior to becoming eligible for participation in the plan. The Company plan allows eligible employees to contribute a percentage of their compensation on a pre-tax basis and the Company matches employee contributions dollar for dollar up to a discretionary amount, currently 4%, of the employee's salary, subject to annual tax deduction limitations. Company matching contributions vest at a rate of 25% annually for each year of service completed. Company matching contributions were \$269, \$272 and \$242 thousand for 2006, 2005 and 2004, respectively. The Company may also make additional discretionary contributions in amounts as determined by management and the Board of Directors. There were no additional discretionary contributions by the Company for the years 2006, 2005 or 2004.

## 12. Earnings per Share

The following table sets forth the reconciliation of the numerators and denominators of the basic and diluted per share computations for continuing operations for the years ended December 31:

(Dollars in thousands, except shares)	2006	2005	2004
<u>Numerator</u>			
Net loss	\$ <u>(13,667)</u>	\$ <u>(15,094)</u>	\$ <u>(4,191)</u>
<u>Denominator:</u>			
Basic EPS:			
Common shares outstanding, beginning of period	30,925,201	30,610,213	27,740,536
Weighted average common shares issued during the period	700,267	127,395	1,424,259
Less Weighted average non-vested restricted stock	<u>(3,123)</u>	=	<u>(3,617)</u>
Denominator for basic earnings per common share -			
Weighted average common shares	<u>31,622,345</u>	<u>30,737,608</u>	<u>29,161,178</u>
Diluted EPS:			
Common shares outstanding, beginning of period	30,925,201	30,610,213	27,740,536
Weighted average common shares issued during the period	700,267	127,395	1,424,259
Less Weighted average non-vested restricted stock due to anti-dilutive effect	<u>(3,123)</u>	=	<u>(3,617)</u>
Denominator for diluted earnings per common share -			
Weighted average common shares	<u>31,622,345</u>	<u>30,737,608</u>	<u>29,161,178</u>

At December 31, 2006, options to purchase 5,509,194 shares of the Company's common stock at prices ranging from \$0.54 to \$20.92 per share, unvested restricted common shares, and options to purchase 33,668 shares of MTI Micro common stock at prices ranging from \$2.39 to \$4.66 per share were outstanding but were not included in the computation of earnings per share-assuming dilution because the Company incurred a net loss during this period and their inclusion would be anti-dilutive. The MTI options expire between January 4, 2007 and November 9, 2016, while the MTI Micro options expire between September 29, 2012 and September 18, 2015. The Company also has 3,027,778 warrants outstanding as of December 31, 2006; however, these were excluded in the computation earnings per share because they are not eligible to be exercised until June 20, 2007.

At December 31, 2005, options to purchase 5,041,242 shares of common stock at prices ranging from \$0.54 to \$20.92 per share, additional investment rights to purchase approximately 3,320,604 shares (\$20,000 thousand divided by

\$6.023 per share) of common stock with an exercise price of \$6.023 per share and warrants to purchase 28,377 shares of common stock with an exercise price of \$10.572 per share and options to purchase 78,461 shares of MTI Micro common stock at prices ranging from \$2.39 to \$4.66 per share were outstanding but were not included in the computation of earnings per share-assuming dilution because the Company incurred a loss from continuing operations during this period and inclusion would be anti-dilutive. The MTI options expire between December 20, 2006, and December 18, 2015. The MTI Micro options expire between September 29, 2012, and September 18, 2015. Warrants for the purchase of 28,377 shares expired unexercised on February 5, 2006. Investment rights issued to Fletcher expired on December 31, 2006.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

At December 31, 2004, options to purchase 3,752,063 shares of common stock at prices ranging from \$0.54 to \$20.92 per share, additional investment rights to purchase approximately 3,154,575 shares (\$20,000 thousand divided by \$6.34 per share) of common stock with an exercise price of \$6.34 per share and warrants to purchase 28,377 shares of common stock with an exercise price of \$10.572 per share and options to purchase 2,876,881 shares of MTI Micro common stock at prices from \$2.39 to \$4.66 per share were outstanding but were not included in the computation of earnings per share-assuming dilution because the Company incurred a loss from continuing operations during this period and inclusion would be anti-dilutive. The MTI options expire between December 20, 2006, and December 16, 2014. The MTI Micro options expire between May 6, 2011, and December 12, 2014. Warrants for the purchase of 28,377 shares expired unexercised on February 5, 2006. Investment rights issued to Fletcher expired on December 31, 2006.

#### 13. Stock Based Compensation

##### MTI Option Plans

Stock-based incentive awards are provided to employees and directors under the terms of the Company's 2006 Equity Incentive Plan ("2006 Plan"), the 1999 Employee Stock Incentive Plan ("1999 Plan") and the 1996 Stock Incentive Plan ("1996 Plan") (collectively, the "Plans"). Awards under the Plans have generally included at-the-money options and restricted stock grants. MTI Micro also issued awards under the MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan ("2001 MTI Micro Plan"). During 2005, MTI Micro ceased making grants under the 2001 MTI Micro Plan and determined that it would make no new awards under this plan in the future.

The 2006 Plan was adopted by the Company's Board of Directors on March 16, 2006 and approved by shareholders on May 18, 2006. The 2006 Plan provides that an initial aggregate number of two million shares of common stock may be awarded or issued. The number of shares which may be awarded under the 2006 Plan and awards outstanding will be adjusted for stock splits and other similar events. Under the 2006 Plan, the Board of Directors is authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others.

The 1999 Plan was approved by shareholders during March 1999. The 1999 Plan provides that an initial aggregate number of one million shares of common stock may be awarded or issued. The number of shares which may be awarded under the 1999 Plan and awards outstanding have been adjusted for stock splits, and during 2006, 2005 and 2004, the total number of shares which may be awarded under the 1999 Plan was 4,500,000 shares. Under the 1999 Plan, the Board of Directors is authorized to issue stock-based awards to officers, employees and others.

The 1996 Plan was approved by shareholders during December 1996 and expired during October 2006. The 1996 Plan provided an initial aggregate number of 500,000 shares of common stock to be awarded or issued. The number of shares available to be awarded under the 1996 Plan and awards outstanding were adjusted for stock splits and rights offerings. During 2005 and 2004, the total number of shares available to be awarded under the 1996 Plan were 3,746,813 and 3,478,746 shares, respectively. Under the 1996 Plan, the Board of Directors was authorized to issue stock options, stock appreciation rights, restricted stock, and other stock-based incentives to officers, employees and others.

Stock-based compensation expense for the year ended December 31, 2006 was generated from stock options and restricted stock grants. Stock options are awards which allow holders to purchase shares of the Company's common stock at a fixed price. Stock options issued to employees generally vest 25% per year beginning one year after grant. Options issued to non-employee members of the MTI Board generally vest upon grant. Certain options granted may be fully or partially exercisable immediately, may vest on other than a four year schedule or vest upon attainment of specific performance criteria. Restricted stock awards generally vest one year after the date of grant; however, certain awards may vest immediately or vest upon attainment of specific performance criteria. Option exercise prices are generally equivalent to, but cannot be less than 85 percent of the closing market value price of the Company's common stock on the date of grant. Unexercised options generally terminate ten years after date of grant, except for options issued under the 2006 Plan, which terminate seven years after date of grant.

#### Share-Based Compensation Information under FAS 123R

As discussed in Note 2 "Significant Accounting Policies" effective January 1, 2006, the Company adopted the fair value recognition provisions for stock-based awards granted to employees using the modified prospective application method provided by FAS 123R. Stock-based compensation cost is measured at grant date, based on the fair value of the award, and is recognized as expense over the employee requisite service period.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company estimates the fair value of stock options using a Black Scholes valuation model consistent with the provisions of FAS 123R and SAB 107. Key inputs and assumptions used to estimate the fair value of stock options include the grant price of the award, the expected option term, volatility of the Company's stock, an appropriate risk-free rate, and the Company's dividend yield. Estimates of fair value are not intended to predict actual future events or the value ultimately realized by employees who receive equity awards, and subsequent events are not indicative of the reasonableness of the original estimates of fair value made by the Company.

The fair value of each stock option grant was estimated at the date of grant using a Black-Scholes Option Pricing model. The following table presents the weighted-average assumptions used for options granted:

	<u>2006</u>
Option term (years) <sup>A</sup>	4.26
Volatility <sup>B</sup>	73.14%

Risk-free interest rate (zero coupon U.S. treasury note) <sup>C</sup>	4.77%
Dividend yield <sup>D</sup>	0%
Weighted-average fair value per option granted	\$ 2.51

A

The Option term is the number of years that the Company estimates, based upon historical experience and the full contractual term of the options outstanding, those options will be outstanding prior to exercise.

B

The expected stock price volatility as of the grant date is based on the historical volatility of the Company's common stock price over a period corresponding to the expected term of the option, adjusted for activity that is not expected to occur in the future.

C

The risk-free interest rate assumption is based upon observed interest rates appropriate for the expected term of the Company's employee stock options.

D

The dividend yield assumption is based on the Company's history and expectation of future dividend payouts, which may be subject to substantial change in the future.

As share-based compensation expense recognized in the Consolidated Statement of Operations for the year ended December 31, 2006 is based on awards ultimately expected to vest, it should be reduced for estimated forfeitures. FAS 123R requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Pre-vesting forfeitures for service-period stock option grants were estimated to be approximately 9.5% (annualized) during fiscal 2006 based on historical experience. In the Company's pro forma information required under FAS 123 for the periods prior to fiscal 2006, the Company accounted for forfeitures as they occurred. The cumulative effect for the change in forfeitures was immaterial to be presented separately.

#### Share-Based Compensation Information under FAS 123 and APB 25

Prior to January 1, 2006, the Company had elected to follow APB Opinion No. 25, *Accounting for Stock Issued to Employees* ("APB Opinion No. 25") and related Interpretations in accounting for employee stock-based compensation and to provide the disclosures required under FAS 123. APB Opinion No. 25 requires no recognition of compensation expense for most of the stock-based compensation arrangements provided by the Company, namely, broad-based employee option grants where the exercise price is equal to or not less than 85 percent of the market value at the date of grant. However, APB Opinion No. 25 requires recognition of compensation expense for variable award plans over the vesting periods of such plans, based upon the then-current market values of the underlying stock. In contrast, FAS 123 requires recognition of compensation expense for grants of stock, stock options, and other equity instruments, over the vesting periods of such grants, based on the estimated grant-date fair values of those grants. Under the intrinsic-value-based method, compensation cost is the excess, if any, of the market value of the stock at grant over the amount an employee must pay to acquire the stock.

During 2005, the Company awarded 50,000 shares each of common stock and restricted common stock which vested over a one-year period. Presented below is a summary of compensation expense related to the intrinsic value of performance-based, time-based and unrestricted awards, which is included in the summary of the Company's compensation expense under all share-based awards

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

above, for the Plans which was recorded in the financial statement line "Selling, general and administrative expenses" for each of the years ended December 31:

(Dollars in thousands)	<u>2005</u>	<u>2004</u>
Stock	124	-
Restricted stock	45	-
Stock options	<u>633</u>	-
Total stock-based compensation expense	<u>\$ 802</u>	<u>\$ -</u>

The 2005 stock-based compensation expense included \$438 thousand of stock-based compensation expense recorded as a result of accelerating the vesting and/or extending the time to exercise options after termination but not in excess of the original contractual life of the options. These changes were made in connection with employment, termination and change in status (employee to consultant) arrangements.

## Pro Forma Information under FAS 123 for Periods Prior to Fiscal 2006

Prior to adopting the provisions of FAS 123R, the Company recorded estimated compensation expense for employee stock options based upon their intrinsic value on the date of grant pursuant to APB Opinion No. 25 and provided the required pro forma disclosures of FAS 123. Because the Company generally established the exercise price based on the fair market value of the Company's stock at the date of grant, the stock options generally had no intrinsic value upon grant, and therefore compensation expense was recorded primarily for grant modifications prior to adopting FAS 123R. Each accounting period, the Company reported the potential dilutive impact of stock options in its diluted earnings per common share using the treasury-stock method. Out-of-the-money stock options (i.e., the average stock price during the period was below the strike price of the stock option) were not included in diluted earnings per common share as their effect was anti-dilutive.

For purposes of pro forma disclosures under FAS 123 for the year ended December 31, 2005 and 2004, the estimated fair value of the stock options was assumed to be amortized to expense over the stock options' vesting periods. The pro forma effects of recognizing estimated compensation expense under the fair value method on net income (loss) and earnings (loss) per common share for the years ended December 31, 2005 and 2004 were as follows:

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(Dollars in thousands, except per share data)	<u>2005</u>	<u>2004</u>
Net loss, as reported	\$ (15,094)	\$ (4,191)
Add: Total stock-based employee compensation expense already recorded in financial statements, net of related tax effects	1,003	M
Deduct: Total stock-based employee compensation expense determined under fair value based method for all awards, net of related tax effects	<u>(2,963)</u>	<u>(3,116)</u>
	)	)
Pro forma net loss	\$ <u>(17,054)</u>	\$ <u>(7,302)</u>
Loss per Share:		
Basic and diluted - as reported	\$ <u>(0.49)</u>	\$ <u>(0.14)</u>
Basic and diluted - pro forma	\$ <u>(0.55)</u>	\$ <u>(0.25)</u>
	<u>2005</u>	<u>2004</u>
Fair value of each option granted	\$ 2.85	\$ 3.93
Number of options granted	1,467,880	1,097,500
Fair value of all options granted	\$ 4,187,301	\$ 4,133,652

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

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The fair value of options granted, which is amortized to expense over the option vesting period in determining the pro forma impact, is estimated on the date of grant using the Black-Scholes Option Pricing model with the following weighted average assumptions for each of the years ended December 31:

	<u>2005</u>	<u>2004</u>
Expected life of option	5 yrs	5 yrs
Risk-free interest rate	4.28%	3.77%
Expected volatility of the Company's stock	77.3%	80.8%
Expected dividend yield on the Company's stock	0%	0%

The weighted average grant-date fair value of stock awarded and vested for each of the years ended December 31 is as follows:

	<u>2005</u>	<u>2004</u>
Fair value of each share granted	\$ 2.49	\$ -
Number of shares granted	50,000	-
Fair value of all shares granted	\$ 124,500	\$ -

The weighted average grant-date fair value of restricted stock awarded for each of the years ended December 31 is as follows:

	<u>2005</u>	<u>2004</u>
Fair value of each restricted share granted	\$ 2.49	\$ -
Number of restricted shares granted	50,000	-
Fair value of all restricted shares granted	\$ 124,500	\$ -

Total share-based compensation expense, related to all of the Company's share-based awards, recognized for the year ended December 31, 2006, 2005 and 2004 was comprised as follows (in thousands):

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Unfunded research and product development	\$ 512	\$ -	\$ -
Selling, general and administrative	<u>1,894</u>	<u>1,003</u>	<u>8</u>
	<i>B</i>	<i>B</i>	
Share-based compensation expense before taxes	2,406	1,003	8
Related income tax benefits	=	=	=



A

Share-based compensation expense, net of taxes	\$ <u>2,406</u>	\$ <u>1,003</u>	\$ <u>8</u>
Impact on basic and diluted EPS	\$ <u>(0.08)</u>		

A

Income tax effect is zero due to the Company maintaining a full valuation allowance.

B

Compensation expense for the years ended December 31, 2005 and 2004 was calculated under APB 25.

Total unrecognized compensation costs related to non-vested awards as of December 31, 2006 is \$2,518 thousand and is expected to be recognized over a weighted-average vesting period of approximately 1.35 years.

As of January 1, 2006, the adoption of FAS 123R resulted in the elimination of unearned compensation related to restricted stock (contra equity account) against additional paid in capital totaling approximately \$80 thousand.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Presented below is a summary of the Company's stock option plans' activity for the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Shares under option, beginning	5,041,242	3,752,063	2,875,150
Granted	1,564,750	1,467,880	1,097,500
Exercised	(719,791)	(148,575)	(193,768)
Canceled/Forfeited	(175,099)	(10,126)	(24,219)
Expired	<u>(201,908)</u>	<u>(20,000)</u>	<u>(2,600)</u>
Shares under option, ending	<u>5,509,194</u>	<u>5,041,242</u>	<u>3,752,063</u>

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Options exercisable	4,053,286	4,197,029	3,331,968
Remaining shares available for granting of options	2,096,159	1,363,214	2,632,901

The weighted average exercise price is as follows for each of the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Shares under option, beginning	\$ 3.76	\$ 4.06	\$ 3.29
Granted	\$ 4.04	\$ 2.85	\$ 5.72
Exercised	\$ 1.65	\$ 2.20	\$ 2.11
Canceled/Forfeited	\$ 4.29	\$ 4.26	\$ 3.46
Expired	\$ 5.30	\$ 6.17	\$ 6.00
Shares under option, ending	\$ 4.04	\$ 3.76	\$ 4.06
Options exercisable, ending	\$ 4.12	\$ 3.85	\$ 4.03

The following table summarizes information for options outstanding and exercisable at December 31, 2006:

Options Outstanding				Options Exercisable	
		Weighted Average	Weighted		Weighted
Exercise		Remaining	Average		Average
Price Range	Number	Contractual Life	Exercise Price	Number	Exercise Price
\$ 0.54 - \$ 0.77	85,946	0.5	\$ 0.70	85,946	\$ 0.70
\$ 0.98 - \$ 1.34	331,250	1.4	\$ 1.27	331,250	\$ 1.27
\$ 1.61 - \$ 2.04	359,200	5.0	\$ 1.88	330,293	\$ 1.87
\$ 2.28 - \$ 3.68	2,192,631	7.1	\$ 3.08	1,486,215	\$ 2.97
\$ 3.74 - \$ 4.83	1,626,167	6.0	\$ 4.25	938,582	\$ 4.19
\$ 6.01 - \$ 6.40	647,500	5.8	\$ 6.17	614,500	\$ 6.17
\$ 9.25 - \$ 12.97	206,500	3.5	\$ 10.60	206,500	\$ 10.60
\$ 20.92	<u>60,000</u>	3.2	\$ 20.92	<u>60,000</u>	\$ 20.92

	<u>5,509,194</u>	5.9	\$ 4.04	<u>4,053,286</u>	\$ 4.12
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The aggregate intrinsic value (i.e. the difference between the closing stock price and the price to be paid by the option holder to exercise the option) for both the Company's outstanding and exercisable options as of December 31, 2006 is \$323 thousand and \$322 thousand, respectively. The amounts are based on the Company's closing stock price of \$1.89 as of December 31, 2006, and would have been the net amount received by the option holders had all in-the-money options been exercised and sold on that date.

#### Exercises of Employee Stock Options

The total intrinsic value of options exercised during years ended December 31, 2006, 2005 and 2004 was \$1,307 thousand, \$217 thousand, and \$734 thousand, respectively. The total cash received by the Company as a result of stock option exercises for the year ended December 31, 2006 was approximately \$1,188 thousand. In connection with these exercises, there was no tax benefit or expense realized by the Company for the year ended December 31, 2006. The Company settles employee stock option exercises with newly issued shares of Company common stock.

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### MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

#### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The number and weighted average grant-date fair value of unvested restricted stock for the period ended December 31, 2006 is as follows:

		Weighted Average
	Number	Grant-Date Fair Value
Unvested restricted stock, beginning	50,000	\$ 2.49
Granted	76,080	4.05
Vested	<u>(121,080)</u>	3.41
Unvested restricted stock, ending	<u>5,000</u>	\$ 4.05

#### MTI Micro Option Plan

The 2001 MTI Micro Plan was approved by MTI Micro's shareholders in 2001 and provided an initial aggregate number of 1,766,000 shares of MTI Micro common stock to be awarded. The number of shares which may be awarded under the 2001 MTI Micro Plan and awards outstanding have been adjusted for a 2004 reverse stock split, and during 2006, 2005 and 2004, the total number of shares which may be awarded under the 2001 MTI Micro Plan were 3,416,667 shares. Under the 2001 MTI Micro Plan, the MTI Micro Board of Directors was authorized to award stock options to officers, directors, employees and consultants. No further grants will be made under this plan.

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Options issued to employees generally vest 25% per year beginning one year after grant. Option exercise prices were determined by MTI Micro's Board of Directors. Unexercised options generally terminate ten years after date of grant. Up until January 1, 2006, MTI Micro followed APB Opinion No. 25 and related Interpretations, in accounting for employee stock-based compensation and to provide the disclosures required under SFAS No. 123. APB Opinion No. 25 requires no recognition of compensation expense for most of the stock-based compensation arrangements provided by MTI Micro, namely, broad-based employee stock purchase plans and option grants where the exercise price is equal to or not less than 85 percent of the market value at the date of grant. However, APB Opinion No. 25 requires recognition of compensation expense for variable award plans over the vesting periods of such plans, based upon the then-current market values of the underlying stock. As of January 1, 2006, MTI Micro is accounting for employee stock-based compensation under FAS 123R.

Presented below is a summary of compensation expense, which is included in the summary of the Company's compensation expense under all share-based awards above, for the MTI Micro plan recorded in "Selling, general and administrative expenses" at MTI Micro for each of the years ended December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Stock options	\$ <u>25</u>	\$ <u>201</u>	\$ <u>8</u>
Total stock-based compensation expense	\$ <u>25</u>	\$ <u>201</u>	\$ <u>8</u>

Presented below is a summary of the 2001 MTI Micro stock option plans activity for the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Shares under option, beginning	78,461	2,876,881	1,570,711
Granted	-	358,000	1,508,110
Exercised	-	(10)	(57,626)
Canceled/Forfeited	<u>(44,793)</u>	<u>(3,156,410)</u>	<u>(144,314)</u>
	)	)	
Shares under option, ending	<u>33,668</u>	<u>78,461</u>	<u>2,876,881</u>
Options exercisable	17,003	35,752	604,881
Remaining shares available for granting of options	3,295,903	3,280,403	481,993

The weighted average exercise price for MTI Micro options is as follows for each of the years ended December 31:

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Shares under option, beginning	\$ 3.22	\$ 3.00	\$ 2.94
Granted	-	3.68	3.11
Exercised	-	2.55	3.28

Canceled/Forfeited	2.93	3.12	3.31
Shares under option, ending	3.61	3.22	3.00
Options exercisable, ending	3.57	2.93	3.14

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The fair value of MTI Micro options granted prior to 2006, which is amortized to expense over the option vesting period in determining the pro forma impact, is estimated on the date of grant using the Black-Scholes Option Pricing model with the following weighted average assumptions for each of the years ended December 31:

	<u>2005</u>	<u>2004</u>
Expected life of option	5 yrs	5 yrs
Risk-free interest rate	4.28%	3.77%
Expected volatility of the MTI Micro's stock	77.3%	80.8%
Expected dividend yield on MTI Micro's stock	0%	0%

The weighted average fair value of MTI Micro options granted for each of the years ended December 31 is as follows:

	<u>2005</u>	<u>2004</u>
Fair value of each option granted	\$ 3.68	\$ 3.11
Fair value of all options granted	\$ 930,890	\$ 3,851,202

In accordance with SFAS No. 123, the weighted average fair value of stock options granted is required to be based on a theoretical statistical model using the preceding Black-Scholes Option Pricing model assumptions.

Outstanding Options			Options Exercisable		
		Weighted	Weighted		Weighted
Exercise		Average	Average		Average
Price		Remaining	Exercise		Exercise
Range	Number	Contractual Life	Price	Number	Price
\$ 2.39 - \$ 2.55	11,500	7.6	\$ 2.43	5,500	\$ 2.46
\$ 2.76 - \$ 3.80	4,501	6.7	\$ 3.03	3,668	\$ 3.09

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\$ 4.06 - \$ 4.66	<u>17,667</u>	7.6	\$ 4.52	<u>7,835</u>	\$ 4.58
	<u>33,668</u>	7.5	\$ 3.61	<u>17,003</u>	\$ 3.57

Based upon an estimated common stock price of \$1.10 at December 31, 2006, the intrinsic value of all MTI Micro's outstanding and exercisable options are zero, since all exercise prices are below the estimated common stock fair value price.

On December 30, 2005, the Company granted options to acquire 1,021,213 shares of MTI common stock, par value \$0.01 per share, to certain Optionees. The options have an exercise price per share of \$2.80 (the closing price of the Company's common stock on December 30, 2005). The Company issued the options pursuant to a November 28, 2005 stock option exchange offer. MTI Micro options outstanding for a purchase of a total of 2,392,947 shares of MTI Micro common stock, par value \$0.01 per share, were tendered by the Optionees and then cancelled by MTI Micro as a result of this exchange. Each option is exercisable for one share of MTI common stock. The exchange rate was one option for each two MTI Micro options, rounded down to the nearest whole option, or if an individual had an MTI Micro option balance in excess of 150,000 options, then at a rate of one option for each four MTI Micro options in excess of 150,000 options. The exchange was accounted for in accordance with EITF 00-23 Issue 1 and no compensation expense was recorded.

14. Cash Flows - Supplemental Information

	Year Ended	Year Ended	Year Ended
	Dec. 31,	Dec. 31,	Dec. 31,
(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Non-Cash Investing and Financing Activities:			
Additional paid-in-capital resulting from stock option exercises			
treated differently for financial reporting and tax purposes	\$ -	\$ -	\$ 294
Change in investment and paid-in-capital resulting from			
other investors' activity in MTI Micro stock	(1,284)	(301)	343
Derivative tax asset	-	-	696
Cash Payments:			
Taxes paid (tax refunds), net	3	37	(143)

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

15. Derivatives

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The Company held or has outstanding as of December 31, the following derivative financial instruments:

Derivatives issued:	<u>2006</u>	<u>2005</u>	<u>Expiration</u>
Warrants, exercisable beginning June 20, 2007, to purchase the Company's common stock issued to three investors at a purchase price of \$2.27 per share	3,027,778	-	December 19, 2011
Warrants, exercisable beginning February 5, 2005, to purchase the Company's common stock issued to Chicago Investment Group, LLC at a purchase price of \$10.572 per share	-	28,377	February 5, 2006
Second Investment Right, exercisable beginning December 22, 2004, to purchase the Company's common stock issued to Fletcher International, Ltd. at a purchase price of \$6.023 per share	-	3,320,604	December 31, 2006

The warrants issued during the Company's December 2006 capital raise were legally freestanding, detachable and transferable by the holders. The features of the warrant allowed both straight cash exercises as well as cashless exercises. Due primarily to a stipulation in the warrant agreement which allowed a potential cash settlement with the holders if the Company was acquired by, or merged with a private company, these warrants were classified as an asset/liability derivative in accordance with SFAS No. 133 (paragraph 11) and EITF 00-19.

The Second Investment Right issued to Fletcher International, Ltd. ("Fletcher") met the exception criteria of SFAS No. 133, paragraph 11(a) since it was indexed to the Company's own stock and could appropriately be classified as a component of shareholder's equity. Additional guidance in the treatment of this right was derived from EITF 00-19. Because this right was part of the initial Fletcher investment, it was included within the original investment's fair value and recorded as permanent equity.

On June 24, 2005, Fletcher notified the Company of their election to exercise in full its right to purchase from the Company certain shares of common stock of Plug Power. As a result of this election, Fletcher purchased 1,799,791 shares of Plug Power common stock from the Company at a price of \$0.7226 per share, with proceeds to the Company of \$1,301 thousand. This transaction closed on June 28, 2005 and, in connection with this exercise, the Company recognized a loss on the derivative immediately prior to exercise of \$7,173 thousand and a gain on the sale of Plug Power common shares of \$9,635 thousand.

## 16. Commitments and Contingencies

### Litigation

### Lawrence

On September 9, 1998, Barbara Lawrence, the Lawrence Group, Inc. ("Lawrence") and certain other Lawrence-related entities ("Plaintiffs") initially filed suit in the Bankruptcy Court and the United States District Court for the Northern District of New York, which were subsequently consolidated in the District Court, against First Albany Corporation ("FAC"), the Company, Dale Church, Edward Dohring, Beno Sternlicht, Alan Goldberg and George McNamee (Church, Dohring, Sternlicht, Goldberg and McNamee are former Directors of the Company), Marty Mastroianni (former President and Chief Operating Officer of the Company), and 33 other individuals ("Defendants") who purchased a total of 820,909 (2,462,727 shares post split) shares of the Company's stock from the Plaintiffs. The case concerns the Defendants' 1997 purchase of the Company's common stock from the Plaintiffs at the price of \$2.25 per share (\$0.75 per share post split). FAC acted as Placement Agent for the Defendants in the negotiation and sale of the shares and in proceedings before the Bankruptcy Court for the Northern District of New York, which approved the sale in September 1997.

Plaintiffs claim that the Defendants failed to disclose material inside information concerning Plug Power, LLC to the Plaintiffs and therefore the \$2.25 per share (\$0.75 per share post split) purchase price was unfair. Plaintiffs are seeking damages of \$5 million plus punitive damages and costs. In April 1999, Defendants filed a motion to dismiss the amended complaint, which was denied by the Bankruptcy Court. On appeal in October 2000, Plaintiffs' cause of action was dismissed by the United States District Court for the Northern District of New York. In November 2000, Plaintiffs filed an appeal of that dismissal with the United States Court of Appeals for the Second Circuit. In June 2002, the Second Circuit Court of Appeals reversed the District Court decision and remanded the case for further consideration of the Plaintiff's claims as motions to modify the Bankruptcy Court sale order. The Plaintiff's claims have now been referred back to Bankruptcy Court for such consideration. In September 2003, the Bankruptcy Court issued an order permitting Plaintiffs to conduct limited discovery concerning how First Albany formed an opinion about the Company's stock up until the date the Stock Purchase Agreement was executed. Discovery has commenced.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company believes the claims have no merit and intends to defend them vigorously. The Company cannot predict the outcome of the claims nor reasonably estimate a range of possible loss given the current status of the litigation. Accordingly, no amounts have been reserved for this matter.

#### Leases

The Company and its subsidiaries lease certain manufacturing, laboratory and office facilities. The leases generally provide for the Company to pay either an increase over a base year level for taxes, maintenance, insurance and other costs of the leased properties or the Company's allocated share of insurance, taxes, maintenance and other costs of leased properties. The leases contain renewal provisions.

Future minimum rental payments required under non-cancelable operating leases are (dollars in thousands): \$374 in 2007, \$372 in 2008, \$337 in 2009 and \$0 in 2010 and 2011. Rent expense under all leases was \$748, \$746 and \$706 thousand for 2006, 2005 and 2004, respectively. Contingent rent included in the rent expense was \$3, \$11 and \$53 thousand for 2006, 2005 and 2004, respectively.

#### Warranties

Below is a reconciliation of changes in product warranty liabilities at December 31:



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(Dollars in thousands)	<u>2006</u>	<u>2005</u>
Balance, beginning of period	\$ 20	\$ 38
Accruals for warranties issued	25	30
Accruals related to pre-existing warranties (including changes in estimates)	(12)	(31)
Settlements made (in cash or in kind)	<u>(14)</u>	<u>(17)</u>
		)
Balance, end of period	\$ <u>19</u>	\$ <u>20</u>

Licenses

The Company licenses, on a non-exclusive basis, certain DMFC technology from Los Alamos National Laboratory ("LANL"). Under this agreement, the Company was required to pay future minimum annual license fees of \$250 thousand yearly through 2019; however the agreement was modified on May 17, 2006 to lower future minimum and annual license fees as follows:

License	Original	Amended
<u>Year</u>	<u>Agreement</u>	<u>Agreement</u>
2006	\$ 250,000	\$ 20,000
2007	\$ 250,000	\$ 25,000
2008	\$ 250,000	\$ 35,000
2009	\$ 250,000	\$ 45,000
2010	\$ 250,000	\$ 50,000
2011	\$ 250,000	\$ 65,000
2012	\$ 250,000	\$ 85,000
2013	\$ 250,000	\$ 100,000
2014-2019	\$ 250,000	\$ 100,000

Effective, July 6, 2005, MTI Micro entered into an exclusive field-of-use patent license agreement with LANL. Under this agreement, MTI Micro paid a non-refundable License Issue Fee of \$30 thousand upon execution of such agreement.

Under both LANL licenses, license payments made in any year can be applied against royalties due with total annual fees in any year not to exceed \$1 million. Also under both LANL licenses, once products are being sold, royalties will be based on 3%, up from 2%, of the first \$50 million of net sales, 2%, up from 1%, on net sales in excess of \$50 million but less than \$100 million and 1%, up from 0.5%, on net sales in excess of \$100 million. Any royalties due shall not exceed 2% of net sales.

Under the NYSERDA contract, MTI Micro agreed to pay NYSERDA a royalty of 5.0% of the sales price of any product sold incorporating IP developed pursuant to the NYSERDA contract. If the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5%. Total royalties are subject to a cap equal to two times the total contract funds paid by NYSERDA to MTI Micro, and may be reduced to reflect any New York State jobs created by MTI Micro.

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## MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Employment Agreements

The Company has employment agreements with certain employees that provide severance payments, certain other payments, accelerated vesting and exercise extension periods of certain options upon termination of employment under certain circumstances, as defined in the applicable agreements. As of December 31, 2006, the Company's potential minimum obligation to these employees was approximately \$1,001 thousand.

#### Contract Losses

During 2005, MTI Micro entered into a fixed price contract with Saft America, Inc. ("SAFT") under the U.S. Army CECOM contract. The total fixed price to be paid at the completion was amended on November 14, 2006 from \$470 thousand to \$418 thousand, in recognition of the elimination of Milestone 4. As of December 31, 2006, MTI Micro forecasted costs in excess of this revised contract value of \$66 thousand, and accrued this amount for the anticipated cost overrun for this project. The project was completed during February 2007.

During 2004, MTI Micro entered into a fixed price-cost type completion contract with the U.S. Army. The contract which totaled \$250 thousand permitted monthly cost progress payments and called for the delivery of five DMFC power system units. These prototypes required substantial engineering to meet the performance requirements of the customer and at December 31, 2004, MTI Micro accrued \$540 thousand for the then anticipated cost needed to complete the project. The contract was completed on November 25, 2005.

#### 17. Related Party Transactions

Management believes transactions among related parties are as fair to the Company as obtainable from unaffiliated third parties.

During the Company's December 2006 capital raise, Sidney V. Gold, a shareholder in MTI Micro, purchased units consisting of 500,000 shares of the Company's common stock and warrants to purchase an additional 250,000 shares of its common stock. These warrants are exercisable between June 20, 2007 and December 19, 2011 at \$2.27 per share.

Alan P. Goldberg, a member of the board of directors of MTI Micro, is the Vice Chairman of the Board of First Albany Companies Inc. ("FAC"). FAC owned 1,116,040 shares or approximately 3.61% of the Company's common stock at December 31, 2005. As of December 31, 2006, FAC no longer owns any shares of the Company's common stock.

On December 19, 2005, MTI Micro entered into a Market Development Agreement with SES Americom Inc. ("SES"). Robert Phelan is Senior Vice President of SES and is a sibling of William Phelan, a director of the Company. The Company has not received, nor has it made, any payments to SES.

During August 2004, Dr. William Perry, a former member of the board of directors of MTI Micro (who resigned on April 23, 2006) purchased through the exercise of stock options 56,668 shares of MTI Micro.

On March 29, 2004, the Company acquired 4,762 shares of its common stock from its then CEO, Dale Church, in connection with a tax liability of Mr. Church resulting from the vesting of restricted stock in October 2003.

The Company purchases materials from E.I. du Pont de Nemours and Company ("DuPont"), a shareholder in MTI Micro. Such purchases totaled \$130 and \$253 thousand in 2005 and 2004, respectively. The Company had a liability to DuPont for materials purchases totaling \$2 and \$0 thousand as of December 31, 2005 and 2004, respectively. These liabilities are included in the financial statement line "Accrued liabilities - related parties." The Company had a net receivable due from DuPont for material purchases as of December 31, 2004 of \$2 thousand. This receivable was included in the financial statement line "Other receivables - related parties."

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

18. Geographic and Segment Information

The Company sells its products on a worldwide basis with its principal markets listed in the table below where information on product revenue and funded research and development revenue is summarized by geographic area for the Company as a whole for each of the years ended December 31:

(Dollars in thousands)

	<u>2006</u>	<u>2005</u>	<u>2004</u>
Product revenue:			
United States	\$ 4,737	\$ 4,751	\$ 6,384
Japan	1,762	628	353

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Singapore	355	31	20
Other Pacific Rim	196	151	195
Europe	175	96	246
Turkey	170	18	-
Hong Kong	83	51	98
Israel	61	19	87
Canada	36	87	39
South America	19	100	-
Rest of World	<u>73</u>	<u>80</u>	<u>108</u>
Total product revenue	<u>\$ 7,667</u>	<u>\$ 6,012</u>	<u>\$ 7,530</u>
Funded research and development revenue:			
Korea	426	-	-
United States	<u>63</u>	<u>1,829</u>	<u>1,040</u>
Total funded research and development revenue	<u>489</u>	<u>1,829</u>	<u>1,040</u>
Total product and funded research and development revenue	<u>\$ 8,156</u>	<u>\$ 7,841</u>	<u>\$ 8,570</u>

Revenues are attributed to regions based on the location of customers.

The Company operates in two business segments, New Energy and Test and Measurement Instrumentation. The New Energy segment is focused on commercializing DMFCs. The Test and Measurement Instrumentation segment designs, manufactures, markets and services computer-based balancing systems for aircraft engines, high performance test and measurement instruments and systems, and wafer characterization tools for the semiconductor industry. The Company's principal operations are located in North America.

The accounting policies of the New Energy and Test and Measurement Instrumentation segments are similar to those described in the summary of significant accounting policies (See Note 2). The Company evaluates performance based on profit or loss from operations before income taxes, accounting changes, items management does not deem relevant to segment performance, and interest income and expense. Inter-segment sales are not significant.

Total product revenues contributed by the Test and Measurement Instrumentation products segment and their percentage of total product revenues for each of the years ended December 31 are shown below:

	<u>2006</u>		<u>2005</u>		<u>2004</u>	
(Dollars in thousands)	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>	<u>Dollars</u>	<u>Percent</u>

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Aviation	\$ 2,990	39.00%	\$ 3,013	50.12%	\$ 4,027	53.48%
Dimensional Gauging	4,165	54.32	2,688	44.71	2,393	31.78%
Semiconductor	<u>512</u>	<u>6.68</u>	<u>311</u>	<u>5.17</u>	<u>1,110</u>	<u>14.74</u>
						%
Total	\$ <u>7,667</u>	<u>100.00</u>	\$ <u>6,012</u>	<u>100.00</u>	\$ <u>7,530</u>	<u>100.00</u>
		%		%		%

In the Test and Measurement Instrumentation Segment, the U.S. Air Force accounted for \$1,774 thousand or 23.1% of total revenue in 2006; \$2,385 thousand or 30.4% of total revenues in 2005; and \$3,508 thousand or 40.9% of product revenues in 2004. Sales to its Japanese distributor accounted for \$1,757 thousand or 22.9% of total revenue in 2006.

In the New Energy Segment, DOE accounted for \$63 thousand or 12.8% of total revenue in 2006 and \$930 thousand or 11.9% of total revenue in 2005 and Samsung accounted for \$426 thousand or 87.2% of total revenue in 2006.

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Summarized financial information concerning the Company's reportable segments is shown in the following table. The "Other" column includes corporate related items and items such as income taxes or unusual items, which are not allocated to reportable segments. The "Reconciling Items" column includes minority interests in a consolidated subsidiary. In addition, segments' non-cash items include any depreciation and amortization in reported profit or loss. The New Energy segment figures include the Company's micro fuel cell operations, equity securities of Plug Power, gains on the sale of these securities, and (losses) gains related to the embedded derivative for the purchase of Plug Power common stock.

(Dollars in thousands)		Test and Measurement		Reconciling Items	Consolidated Totals
	<u>New Energy</u>	<u>Instrumentation</u>	<u>Other</u>		
<u>Year Ended December 31, 2006</u>					
Product revenue	\$ -	\$ 7,667	\$ -	\$ -	\$ 7,667
Funded research and development revenue	489	-	-	-	489
Research and product development expenses	11,588	1,333	-	-	12,921
Selling, general and					

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administrative expenses	2,733	2,457	4,882	-	10,072
Segment (loss) profit from continuing operations before income taxes,					
equity in holdings' losses and minority interests	(12,847)	662	(795)	-	(12,980)
Segment (loss) profit	(12,847)	662	(2,690)	1,208	(13,667)
Total assets	15,565	2,782	15,464	-	33,811
Securities available for sale	10,075	-	-	-	10,075
Capital expenditures	1,284	200	90	-	1,574
Depreciation and amortization	604	94	403	-	1,101

(Dollars in thousands)

		Test and Measurement		Reconciling	Consolidated
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	<u>New Energy</u>	<u>Instrumentation</u>	<u>Other</u>	<u>Items</u>	<u>Totals</u>
--	-------------------	------------------------	--------------	--------------	---------------

Year Ended December 31, 2005

Product revenue	\$ -	\$ 6,012	\$ -	\$ -	\$ 6,012
Funded research and development revenue	1,829	-	-	-	1,829
Research and product development expenses	8,546	1,125	-	-	9,671
Selling, general and administrative expenses	3,772	2,188	4,927	-	10,887
Loss on derivatives	(10,407)	-	-	-	(10,407)
Segment (loss) profit from continuing					

operations before income taxes,					
equity in holdings' losses and					
minority interests	(13,708)	(74)	(1,167)	-	(14,949)
Segment (loss) profit	(13,708)	(74)	(2,754)	1,442	(15,094)
Total assets	20,996	1,962	18,309	-	41,267
Securities available for sale	18,947	-	-	-	18,947
Capital expenditures	783	123	98	-	1,004
Depreciation and amortization	576	69	608	-	1,253

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MECHANICAL TECHNOLOGY INCORPORATED AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Dollars in thousands)	Test and Measurement			Reconciling	Consolidated
	<u>New Energy</u>	<u>Instrumentation</u>	<u>Other</u>	<u>Items</u>	<u>Totals</u>
<u>Year Ended December 31, 2004</u>					
Product revenue	\$ -	\$ 7,530	\$ -	\$ -	\$ 7,530

Funded research and development revenue	1,040	-	-	-	1,040
Research and product development expenses	11,811	1,149	-	-	12,960
Selling, general and administrative expenses	1,395	1,677	3,253	-	6,325
Gain on derivatives	614	-	-	-	614
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and minority interests	(8,970)	1,530	(1,681)	-	(9,121)
Segment (loss) profit	(8,970)	1,530	1,883	1,366	(4,191)
Total assets	47,940	2,373	16,517	-	66,830
Securities available for sale	17,678	-	-	-	17,678
Securities available for sale - restricted	16,497	-	-	-	16,497
Derivative liability	1,125	-	-	-	1,125
Capital expenditures	942	64	828	-	1,834
Depreciation and amortization	441	68	402	-	911

The following table presents the details of "Other" segment (loss) profit for each of the years ended December 31:

(Dollars in thousands)	<u>2006</u>	<u>2005</u>	<u>2004</u>
Corporate and other (expenses) income:			
Depreciation and amortization	\$ (403)	\$ (608)	\$ (402)
Interest income	486	K09	K7



Income tax (expense) benefit	(1,895)	(1,587)	K,564
Other expense, net	<u>(878)</u>	<u>(868)</u>	<u>(1,316)</u>
Total (expense) income	\$ <u>(2,690)</u>	\$ <u>(2,754)</u>	\$ <u>1,883</u>

## 19. Subsequent Events

In late February 2007, the Company learned that the Land Warrior program - a program intended to integrate commercial, off-the-shelf technologies into a complete soldier system for the dismounted infantryman - would be terminated. This termination triggered the Company's reassessment of its high power program's market potential.

The Land Warrior Program had significant market potential for the Company since it required the development of a new power source that could handle its power demand. Land Warrior was also a catalyst for funding the development of alternative advanced power solutions at the various government and military agencies. We were pursuing advanced power solutions for radios, satellite communications and general purpose power requirements and ultimately to the Land Warrior vision of a fuel cell for every soldier.

The Company's market research and product entry roadmap identified the high power DMFC platform as a natural solution for not only Land Warrior but also communications and general purpose power applications and expected to eventually sell 30W power solutions into the military market for both Land Warrior and other on-body power programs. The Company was progressing towards the development and testing of high power prototypes to achieve a technology readiness level acceptable for trials.

As a result of the termination of the Land Warrior Program and the Company's associated reassessment of its high power program, it was determined that both sales and future funding opportunities from the military and other government agencies would be negatively impacted. Accordingly, the Company determined that the continuation of the 30W high power program would no longer be prudent and suspended its development. Additionally, the Company will not proceed with the delivery of 30W prototype systems to two of its customers and has separated employees supporting this effort.