MECHANICAL TECHNOLOGY INC
Form 10-K
March 25, 2011

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

x ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE FISCAL YEAR ENDED DECEMBER 31, 2010
OR

o TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934
FOR THE TRANSITION PERIOD FROM _____ TO _____

_____

Mechanical Technology, Incorporated

(Exact name of registrant as specified in its charter)

_____

New York	0-6890	14-1462255
(State or Other Jurisdiction of Incorporation)	(Commission File Number)	(IRS Employer Identification No.)

431 New Karner Road, Albany, New York 12205
(Address of registrant's principal executive office)

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

Securities Registered Pursuant to Section 12(b) of the Act:

Title of each class	Name of each exchange on which registered
None	None

Securities Registered Pursuant to Section 12(g) of the Act:
Common Stock
($0.01 par value)
Title of Class

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes o No x

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes o No x

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 o

Indicate by checkmark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (Section 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes o No o

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 the 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. x

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

Large Accelerated Filer o Accelerated Filer o Non-Accelerated Filer o Smaller reporting company x

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

The aggregate market value of the voting and non-voting common equity held by non-affiliates as of June 30, 2010 (based on the last sale price of $0.60 per share for such stock reported on the over-the-counter market for that date) was $2,862,995. Such value excludes common stock held by executive officers, directors, and 10% or greater stockholders as of June 30, 2010. The identification of 10% or greater stockholders as of June 30, 2010 is based upon Schedule 13G and amended Schedule 13G reports publicly filed before June 30, 2010. This calculation does not reflect a determination that such parties are affiliates for any other purposes.

As of March 14, 2011, the Registrant had 4,771,658 shares of common stock outstanding.

Documents incorporated by reference: Portions of the registrant’s Proxy Statement for its 2011 Annual Meeting of Stockholders are incorporated by reference into Part III of this Form 10-K.

PART I

Item 1: Business

Unless the context requires otherwise in this Annual Report, the terms “we”, “us” and “our” refer to Mechanical Technology, Incorporated, “MTI Instruments” refers to MTI Instruments, Inc., and “MTI Micro” refers to MTI MicroFuel Cells, Inc. We have a registered trademark in the United States for “Mobion”. Other trademarks, trade names, and service marks used in this Annual Report are the property of their respective owners.

Mechanical Technology, Incorporated, (“MTI” or the “Company”), a New York corporation, was incorporated in 1961. MTI operates in two segments: the Test and Measurement Instrumentation segment, which is conducted through MTI Instruments, Inc. (“MTI Instruments”), a wholly-owned subsidiary, and the New Energy segment, which is conducted through MTI MicroFuel Cells Inc. (“MTI Micro”), a majority-owned subsidiary as of December 31, 2010.

MTI Instruments was incorporated in New York on March 8, 2000. MTI Instruments is a worldwide supplier of precision non-contact physical measurement solutions, condition based monitoring systems, portable balance equipment and wafer inspection tools. MTI Instrument’s products use a comprehensive array of technologies to solve complex, real world applications in numerous industries including manufacturing, semiconductor, solar, commercial and military aviation, automotive and data storage. MTI Instruments’ products consist of electronic gauging instruments for position, displacement and vibration application within the design, manufacturing/production, test and research market; wafer characterization of semi-insulating and semi-conducting wafers within both the semiconductor and solar industries; tensile stage systems for materials testing at academic and industrial settings; and engine vibration analysis systems for both military and commercial aircraft.

MTI Micro was incorporated in Delaware on March 26, 2001, and is developing Mobion®, a handheld energy-generating device to replace current lithium-ion and similar rechargeable battery systems in many handheld electronic devices for the military and consumer markets. Mobion® handheld generators are based on direct methanol fuel cell (DFMC) 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® as a solution in the multi-billion dollar battery market for advancing current and future electronic device power needs of portable electronic devices. As of December 31, 2010, the Company owned approximately 50.6% of MTI Micro’s outstanding common stock.

The Test and Measurement Instrumentation Segment

MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems. Our products use state-of-the-art technology to solve complex real world applications in numerous industries including automotive, semiconductor, solar cell manufacturing, commercial and military aviation and data storage. We are continuously working on ways to expand our sales reach, including expanded sales coverage throughout Europe and Asia, as well as a focus on internet marketing.

Products

Our test and measurement segment has three product groups: Precision Instruments, Semiconductor and Solar Metrology Systems and Aviation Balancing Systems. Our products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing/production and test and research markets; metrology tools for wafer characterization of semiconductor and solar wafers; tensile stage systems for materials testing in research and industrial settings; and engine balancing and vibration analysis systems for both military and commercial aircraft.

Precision Instruments: The Precision Instruments group employs capacitance, laser and fiber optic technologies to make nano-accurate measurements in product design and quality related processes. These systems measure a variety of parameters including displacement, position, vibration, dimension and material properties.

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

Accumeasure Series:

The Accumeasure family of products is designed to address the needs of product developers, process engineers, researchers, designers, and others who need precise, reliable, non-contact measurements. MTI Instruments has a large installed base of Accumeasure products around the world, and offers off-the-shelf as well as custom capacitance amplifiers designed per customer specifications.

Accumeasure Series

The market appeal for the Accumeasure family of products is based in part on the strategically offered single channel systems for simple general displacement and position applications, as well as multiple-channel systems for more complex applications, including process control monitoring, differential measurements and profiling.

The Accumeasure products have fast response time and extremely low noise levels making them ideal for critical measurements of targets such as rotating spindles and shafts, disks, tires, precision X-Y stages and piezoelectric elements.

Microtrak II Series:

MTI Instrument's Microtrak family of laser triangulation sensors offers high speed, high resolution displacement, position and vibration measurements. The Microtrak features state-of-the-art CMOS - CCD laser triangulation technology which is ideal for solving tough in-process, production and quality control sensing applications. The large variety of laser triangulation sensors provide operating distances to 300mm, measurement ranges to 200mm and measurement resolution to less than 1 micron. The Microtrak II comes standard with an interface controller that provides a convenient digital display of the target position, alarm set points and connections for analog and RS-485 outputs.

Microtrak II

To complement the laser product offerings, MTI Instruments also offers the performance of the standard Microtrak II Laser Triangulation System in a versatile high speed stand-alone configuration for measuring displacement, position, vibration and thickness. Unaffected by surface texture, color or stray light, the Microtrak II is ideal for solving tough production measurement applications throughout a variety of industries. The Microtrak II Stand-Alone Laser Head also uses CMOS - CCD detection technology for accurate and reliable measurements making it ideal for high volume OEM, production and quality control applications. Configuration of system parameters such as measurement units, frequency response and limits are easily accomplished through a laptop or desktop using the included MTI Instrument’s proprietary remote control software program.

MicrotrakII SA

MTI-2100 Fotonic Sensor Series:

The MTI-2100 features advanced fiber-optic and electronic technologies for precise measurements of displacement, position and vibration. It achieves such precision by measuring changes in light intensity reflected from a target. Light is emitted from a tungsten halogen lamp through a fiber optic probe which also receives light from the target reflection.

The MTI-2100 sets high performance standards with resolution up to 0.01 uin. (2.5 Angstroms) and frequency response from direct-coupled (dc) up to 500 kHz. The modular design has the flexibility to be tailored to specific requirements through the use of a wide range of interchangeable and custom fiber-optic probes. These probes are immune to electromagnetic interference and operate on almost any type of surface: metallic, composite, plastic, glass, ceramic or liquid.

MTI-2100

MTI Tensile Stages:

In 2010, MTI Instruments started selling a series of miniature tensile, compression and bend testing machines specifically designed for use in Scanning Electron Microscopes, Atomic Force Microscopes, and Light Microscopes.

MTI Tensile Stages

The MTI Instruments Tensile Stages are used by industrial and research institutions to investigate how different materials perform under certain conditions. Material specimens are placed within the jaws of the tensile stage and compressive or expansive load forces are applied. Additional stimuli such as heating or cooling can be directed at the sample during the test in order to gather data under various conditions.

Capable of performing tensile, compression, bending and fatigue tests, they are ideal tools for researchers and material scientists. During testing, crack propagation, grain rotation and other effects of mechanical stress can be observed under high magnification. This provides greater insight into early stages of material failure and a better overall understanding how specific materials perform. To control experiments and collect data, MTI Instruments uses a material testing system which provides a user-friendly interface to set system test parameters and analyze data. Results are provided in real time and stress-strain curves generated while tests are in progress. Key parameters such as peak load/stress, offset yield, and modulus of elasticity, as well as other parameters, are also reported. Raw test data and results can be exported in standard formats making it easy to integrate with other data analysis and laboratory management systems. MTI Instruments provides a wide range of custom clamps for virtually any specimen shape.

Semiconductor and Solar Metrology Systems: Our family of wafer metrology systems includes manual and semi-automated systems which test key wafer characteristics critical to producing integrated circuits. Primarily used in quality control applications, they provide highly precise measurements of thickness variation, bow, warp, resistivity, and flatness. These systems can be used on substrates varying widely in size and materials. In addition to MTI Instrument's push/pull capacitance probe technology, we have expanded our line of products to include offerings for the solar industry, including the measurement of solar wafer thickness.

The Semiconductor and Solar Metrology Systems include the following products:

Proforma 200SA/300SA:

Semi-automated Proforma 300SA

Microchips drive the sophisticated electronic devices we use today. These tiny chips are created from larger wafers, which must meet high quality standards. Our Proforma series of products quickly analyze wafer quality to help improve process line efficiency.

The Proforma 200SA/300SA is a semi-automated thickness measurement system capable of handling state-of-the-art 200 mm and 300mm wafers using defined and ASTM/SEMI standard patterns. Summary information is provided in standard export formats along with 3-dimensional images of the wafers for advanced analysis.

This series of products is built around MTI Instrument's exclusive push-pull measurement technology which produces more accurate results than other methods.

Additionally, the Proforma 300SA comes with an easy to use and set-up Windows® user interface.

Proforma 300:

The Proforma 300 is an easy-to-use, manual tool that accepts any wafer size and can measure a number of different materials without recalibrating or electrically grounding the wafers.

ProformaTM 300

Portable and easy to set up, the Proforma 300 provides the user precise non-contact measurements at critical points throughout the wafer manufacturing process. Thickness and TTV values are obtained by placing the wafer between MTI Instruments' non-contact capacitance probes. The Teflon coated wafer stage allows for easy, non-abrasive positioning of the wafer, while removable locating pins can be used for precise center thickness measurements. Thickness and TTV values are indicated on the high resolution LCD display.

PV-1000:

The PV-1000 series brings our 40+ years of precision measurement experience to a line of products specifically designed for the photovoltaic/solar industry. The PV-1000 is incorporated into solar cell production lines to help manufacturers quickly determine quality control issues. High speed, multi-channel thickness, TTV and bow measurements are accomplished in real time at speeds up to 5 wafers per second.

PV-1000

Ideal for both process development and production environments, the PV-1000 solar wafer measurement module fits anywhere on the production line. Its modular design offers expandability to meet our customers' current and future measurement demands. The system uses an integrated data acquisition package and control electronics to analyze and transmit wafer data via the on-board Ethernet port. Additionally, the PV-1000 allows for remote monitoring in production areas.

Aviation Balancing Systems: The 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.

Our aviation balancing 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:

PBS-4100+ Portable Balancing System:

The portable PBS-4100 Plus detects if an engine has a vibration problem or a trim balance problem and provides a solution, resulting in reduced engine vibration, longer engine life, and lower fuel costs.

PBS-4100+ Portable Balancing System

MTI Instruments also makes a PBS-4100R rack mounted system which offers the same features and functions as the portable PBS-4100 Plus with added data channels, speed input channels, DC outputs and diagnostic options. It is used in test cell or other fixed installations and can be configured and operated remotely.

TSC-4800A Tachometer Conditioner:

Additionally, targeted for operators of Engine Test cells where accurate and reliable conditioning of speed signals is essential, MTI Instruments has designed the TSC-4800A Tachometer Conditioner to detect and condition signals for monitoring, measuring, and indicating engine speeds. During the testing of advanced aircraft engines, speed signals are monitored and recorded by a large number of different instruments. The TSC-4800A features multiple output circuits that provide more than 10 different signals types for the monitoring devices. The TSC-4800A Tachometer Conditioner leverages design technologies developed for the PBS-4100R+ systems and offers web-based control. It features firmware based circuitry to determine the nature of the speed signals and the required conditioning algorithms. Advanced filtering, threshold detection and noise controls are also a benefit of the new firmware technologies. The firmware based design also ensures that evolving detection and conditioning requirements for future engine designs will be met with easily accomplished firmware refreshes.

TSC-4800A Tachometer Signal Conditioner

1510A Calibrator:

The PBS family of products includes a 1510A calibrator – a product that automatically performs a complete calibration check of the PBS unit which otherwise would take hours. The 1510A calibrator emits precise, NIST traceable, output voltage signals including voltage levels, frequency, waveshape and phase that allow for easy calibration of the PBS-4100+. If the PBS unit is out of tolerance, the calibration function automatically performs a second set of tests to determine calibration factors, which are automatically stored in the instrument.

1510A

Marketing and Sales

We market our products and services using channels of distribution specific to each of our product groups and customer base. The precision instruments group markets it products through a combination of manufacturer representatives in the United States and distributors overseas. The semiconductor and solar metrology systems group markets its products directly to end customers in the United States and internationally through distributors, while the aviation balancing systems 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 MTI Instrument's sales, are shown below for the years ended December 31:

	2010		2009		2008	
(Dollars in thousands)	Sales	%	Sales	%	Sales	%
Aviation Balancing Systems	$ 3,007	41.89%	$ 2,768	44.19%	$ 1,977	31.76%
Precision Instruments	2,804	39.06	2,619	41.81	2,983	47.93
Semiconductor and Solar Metrology	1,368	19.05	876	14.00	1,264	20.31
Total	$ 7,179	100.00%	$ 6,263	100.00%	$ 6,224	100.00%

Product Development and Manufacturing

MTI Instruments conducts research and develops technology to support its existing products and develop new ones. Management believes that the success of the enterprise depends to a large extent upon innovation, technological expertise and new product development.

Our most recent product offerings include:

- In aviation balancing systems, the introduction of the TSC-4800 Tachometer Signal Conditioner for the characterization of engine speeds as well as the PBS-4100+, an advanced and compact portable jet engine balancing and vibration diagnostics system for use by both military and commercial carriers.

- In the precision instruments area, the addition of the tensile stage products tailored to both academia and industry for the characterization and investigation of material properties.

- In the semiconductor and solar metrology systems, for 2009, the introduction of the PV 1000 product line servicing the solar cell manufacturing industry.

- 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.

We seek to achieve a competitive position by continuously advancing our technology, producing new state of the art precision measurement equipment, expanding our worldwide distribution, and providing intimate customer support and product customization.

MTI Instruments assembles and tests its products at its facilities located in Albany, New York. Management believes that most of the raw materials used in our products are readily available from a variety of vendors.

Intellectual Property and Proprietary Rights

We rely on trade secret laws and patents to establish and protect the proprietary rights of our products. In addition, we enter into standard confidentiality agreements with our employees and consultants and seek to control access to and distribution of our 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.

Significant Customers

MTI Instruments' largest customer is the U.S. Air Force. We also have strong relationships with companies in the manufacturing, semiconductor, automotive, aerospace, aircraft and research industries. In 2010, the U.S. Air Force accounted for $1.6 million or 22.0% of product revenues; in 2009, it accounted for $1.2 million or 19.0% of product revenues; and in 2008, it accounted for $974,000, or 15.7%, of product revenue.

Recent Contracts

In 2009, MTI Instruments was awarded a multi-year U.S. Air Force contract to service and repair 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 $6.5 million in sales for the Company between 2009 and 2014. As of December 31, 2010, MTI Instruments had recorded $1.8 million in orders, approximately 28.2% of the five-year contract's total value.

In 2007, we were awarded a multi-year U.S. Air Force contract for the purchase of up to $2.3 million in PBS4100+ portable aircraft engine balancing systems. As of December 31, 2010, we had recorded $2.2 million in orders, approximately 94.2% of the three-year contract's total value.

Competition

We are 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, E+H Eichhorn+Hausmann GmbH, Chadwick-Helmuth Company, Inc., ACES Systems, Micro-Epsilon, and Keyence Corporation.

The primary competitive considerations in MTI Instruments' markets are product quality, performance, price, timely delivery, and the ability to identify, pursue and obtain new customers. MTI Instruments believes that its employees, product development skills, sales and marketing systems and reputation are competitive advantages.

The New Energy Segment

MTI Micro is developing and commercializing off-the-grid power solutions for various portable electronic devices. Our patented proprietary direct methanol fuel cell (dmfc) technology platform called Mobion®, converts 100% methanol fuel to usable electricity capable of providing continuous power as long as necessary fuel flows are maintained. Our proprietary fuel cell power solution consists of two primary components integrated into an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion® Chip, and methanol fuel cartridges. Our current Mobion® Chip is small enough to fit in the palm of one's hand. The methanol used by the technology is fully biodegradable. We have demonstrated power density of over 100 mW/cm 2, while producing more than 1,800 Wh/kg or 1.4 Wh/cc of fuel from its direct methanol fuel feed, which we believe is the highest performance achieved in a vapor-feed, passive water management direct methanol fuel cell, which should allow for more dense micro fuel cell systems. For these reasons, we believe our technology has the potential to offer several significant advantages to users in the military, industrial and the consumer markets when used on portable devices such as military sensors, global positioning systems (gps), smart phones, digital cameras, portable gaming devices, e-readers and power accessories for other portable devices. We believe our platform will facilitate further developments of numerous electronic product advantages, including smaller size, environmental friendliness, grid-free power, greatly extended run-time of current portable devices, and simplicity of design, all critical for commercialization in the consumer market. We also believe our platform can be implemented as three different product options: a handheld power generator for consumer and military electronic devices, a snap-on or attached power accessory for the industrial market, or an embedded

fuel cell in handheld devices. We have strategic agreements with a global Japanese consumer electronics company; with a U.S. based developer and marketer of universal chargers, with a global power tool manufacturer and a letter of intent with Duracell, part of the Procter & Gamble Company. Our goal is to become a leading provider of portable power for various types of electronic devices.

Our Mobion® technology is protected by a patent portfolio that includes 54 US patents and 5 Patent Cooperation Treaty Foreign patents issued, covering five key technologies and manufacturing areas, one of which is the process that eliminates the need for active water recirculation pumps or the inclusion of water as a fuel dilutant. The water required for the electrochemical process is transferred internally within the Mobion® Chip from the site of water generation on the air-side of the cell. This internal flow of water takes place without the need for any pumps, complicated re-circulation loops or other micro-plumbing tools.

Industry Background

Technological advances in semiconductor manufacturing, LCD displays, memory costs and availability, wireless technologies, and software applications have resulted in a dramatic increase in the number of portable electronic devices, their usage, and especially, their power requirements. In addition, there are a number of new handheld electronic devices, such as smart phones, mobile phone accessories, digital cameras, portable gaming devices, e-readers and other portable devices that have been introduced into the market. Demand for these portable electronics that offer an enhanced experience include the ability to communicate any time, anywhere and have effectively enabled the creation of an “always-on” environment independent of location. This trend towards increased functionality in portable electronic devices has led to a “power gap” in which the disparity between a device’s power supply, typically a rechargeable lithium-ion battery, and its power need, is growing. This power gap leads to a need for the end user to plug in their devices to the electrical grid more frequently, which limits the ability to use these electronic devices where and when needed.

Improvements in rechargeable battery technology have not kept pace with the evolution of consumer electronic device performance. Over the last ten years, device performance as measured by silicon processor speed has increased by a factor of 128 times, while the energy density of lithium-ion technology has only doubled. We believe that further gains in lithium-ion technology for portable electronics will be incremental at best, as any achievable benefits may be outweighed by the decreasing stability, availability, integrity, and relative safety of these higher energy output batteries. In addition to their performance shortfalls, lithium-ion battery technology poses an environmental risk as the various heavy metals incorporated in these batteries require special disposal to prevent contamination of waste disposal sites.

According to a report dated May 2009 by Freedonia Group, Inc., an independent research firm, commercial demand for fuel cell systems, which totaled 17,800 units in 2008, will expand exponentially through 2013, when unit sales will reach 1.3 million, and then climb another sevenfold to 9.95 million units in 2018. Although market gains are projected to be strong for most applications, virtually all of this increase will be attributable to an increase in portable fuel cell systems demand, which is expected to account for 98 percent of all unit sales in 2018.

Our Solution

At the core of our solution is our proprietary Mobion® Chip engine, a design architecture that embodies a reduction in the size, complexity, and cost of fuel cell construction, which results in a reliable, manufacturable, and affordable power solution that we believe provides higher energy density and portability over competing portable power technologies. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion® Chip, and methanol replacement cartridges. Our Mobion® Chip is small enough to fit in the palm of one’s hand. For these reasons, we believe that our Mobion® platform is ideally suited to provide a replacement or go along with rechargeable batteries. Based upon our ability to provide a compact, efficient, clean, safe, and long-lasting power source, we intend to initially target power solutions for applications such as universal handheld power generators, military equipments, power tools, remote sensors, smart phones, mobile phone accessories, digital cameras, portable gaming devices, e-readers and other portable devices.

For handheld consumer electronic applications, we have demonstrated power density of over 100 mW/cm 2 with energy efficiencies of 1.4 Wh/cc of fuel, which is a direct result of our Mobion® platform’s ability to use 100% methanol – a widely available, environmentally friendly, inexpensive, and biodegradable fuel. These advantages result in higher energy density and reduced size, cost, and complexity of our power solution offering consumers portable on-demand power, independence from power outlets, and freedom from the need to constantly recharge their devices.

Our Strategy

Our goal is to become a leading provider of portable power for various electronic devices. Key elements of the MTI Micro strategy designed to achieve this objective include the following:

Business Focus. We are focusing our efforts on the development and commercialization of our portable power source products. Our fuel cell features a flexible architecture that is applicable to various kinds of electronic devices. We continue to partner with various OEM's that will co-develop the integration of Mobion® into their devices.

Design for Mass Manufacturing. Our portable power source products will be manufactured using standard processes, such as injection molding and automated test and assembly, which are broadly employed throughout the electronics manufacturing industry. In preparing Mobion® for commercialization, our current Mobion® Chip is designed for mass manufacturing. In addition, we have continued integrating more functionality into our Mobion® Chip while reducing its part count to one piece. Our current Mobion® Chip is small enough to fit in the palm of a hand.

Outsource Manufacturing. We plan to outsource manufacturing of our products to allow us to expand rapidly and diversify our production capacity. This strategy should allow us to maintain a variable cost model in which we do not incur most of our manufacturing costs until our proprietary fuel cell power solution has been shipped and billed to our customers. We intend to concentrate on our core competencies of research and development and product design. This approach should reduce our fixed capital expenditures and allow us to efficiently scale production.

Utilize our Technology to Provide Compelling Products. We plan to utilize our intellectual property portfolio and technological expertise to develop and offer portable power source products across multiple electronic device markets. We intend to employ our technological expertise to reduce the overall size and weight of our portable power source products while increasing their ease of manufacturing, power capacity, and power duration and decreasing their cost. We believe that these efforts will enable us to meet customer expectations and to achieve our goal of supplying on a timely and cost-effective basis an environmentally friendly portable power source products to our target markets. We believe our products will offer advantages in terms of performance, functionality, size, weight, and ease of use.

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

Develop Strong Customer Relationships. We plan to develop strong and long-lasting customer relationships with leading electronic device OEMs and to provide them with power solutions for their products. We believe that our portable power source products will enable our OEM customers to deliver a more positive user experience and to differentiate their products from those of their competitors. We will attempt to enhance the competitive position of our customers by providing them with innovative, distinctive, and high-quality portable power supply products on a timely basis. We will work continually to improve our portable power source products, reduce costs, and accelerate the speed of delivery of our products while addressing the power requirements and compatibility they need.

Pursue Strategic Relationships. We intend to develop and expand strategic relationships to enhance our ability to offer value-added customer solutions, penetrate new markets, and strengthen the technological leadership of our portable power source products.

Products

MTI Micro is developing three product categories of our Mobion® technology: (i) external power charger products, (ii) snap-on or attached power source products, and (iii) embedded power source products. In addition, we are working with our strategic partners and suppliers to develop removable methanol cartridges that will be used to fuel our portable power source products.

External Power Charger: Our design for an external power charger is a standalone device that uses a standard and widely used universal serial bus (usb) interface as a power output connector that can be used to recharge handheld mobile devices. Our current design for the device is roughly the size of two decks of playing cards (see photo below) and employs a 100% methanol fuel cartridge. For each removable cartridge, our current prototype external power charger provides up to one month of power for the typical mobile phone. Our device is designed to provide 2.5 watts of power output from its USB interface and also offer fast charge, ultra-long run time and self-charging modes.

Mobion® external power charger with removable cartridge prototype

Snap-on or Attached Power Source Products: Similar to aftermarket battery attachments, our snap-on direct methanol fuel cell power solution is an attached power supply that is compatible with existing portable electronic devices and offers users extended run-time power. In this category, we envision a number of product applications, including attachments for digital cameras, portable media players, GPS devices, and other consumer and electronic products. Our initial prototype is a direct methanol fuel cell camera-grip (see photo below) that replaces comparable rechargeable lithium-ion battery-pack grips and is designed to provide twice as much energy as similar rechargeable lithium-ion battery-based products. Our Mobion® direct methanol fuel cell camera grip allows photographers the benefits of extended usage plus the freedom to refill using a methanol cartridge rather than by plugging into a wall outlet.

Sample Mobion® attached power source camera-grip prototype

Embedded power source products: Our goal is to produce direct methanol fuel cells that can be embedded into portable electronic devices in order to increase their run time and to provide fast charge capability by hot-swapping 100% methanol cartridges. We have developed an embedded fuel cell prototype for a handheld GPS unit that we believe will generate three times as much usage time as GPS devices powered by conventional disposable AA batteries (see photo below.)

Prototype of a GPS unit with an embedded Mobion® power source

We have also developed an embedded fuel cell concept model designed for a smart phone (see photo below) and believe that this concept model highlights the anticipated future product direction for our portable power source products in the consumer market.

Concept model of a smart phone with an embedded Mobion® power source

Advantages of our Portable Power Source Products

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

- Off-the-grid power source. Our products provide users of consumer electronic devices with extended mobility by providing power without having to attach to a wall outlet to recharge their devices.
- Mobility. Our power source provides off-the-grid power both indoors and outdoors, using the power generated from its methanol fuel; it does not need sunlight or wind to generate electricity.
- Small size and low weight. The dimensions of our products will offer our OEM customers the flexibility to further enhance and reduce the overall size and weight of their products.
- Power density. Our products have demonstrated power density of over 100 mW/cm2 and high energy efficiencies of 1.4 Wh/cc of methanol.
- Power duration. Our products do not limit power capacity found with a typical battery that just stores electricity. Our product continually generates electricity as you refuel with methanol.
- Ease of manufacturing. Our products will be manufactured using traditional injection molding techniques and system assembly operations that should easily transfer to mass-manufacturing production lines.
- Safety. Our products will utilize methanol fuel cartridges, which have been determined by the ICAO (International Civil Aviation Organization) and the US DOT to be safe; methanol cartridges can be carried on airplanes. In addition, methanol does not require storage under pressure or at low temperatures.
- Environmentally friendly. Our products will utilize fully biodegradable methanol fuel. Also, methanol can be sourced from environmentally friendly sources like wood pulp and lumber tailings which yield a carbon neutral impact while generating electricity.

Codes and Standards

In 2004, we became the world's first company to develop micro fuel cell safety compliance certifications for a fuel cell product with Underwriter's Laboratory and CSA International. In addition, fuel cells were given United Nations packaging standards and our methanol cartridges are designed to be compliant by the U.S. Department of Transportation for worldwide cargo shipment. Certification is required for every commercial product prior to its shipment.

We also assisted in the development of a proposal adopted by the United Nations to provide methanol fuel cartridges a separate classification and, working with other micro fuel cell companies and the appropriate regulatory bodies, generated the first draft of the international standards for methanol safety and use related to transport on commercial airplanes. As a result of our industry coalition efforts, the International Civil Aviation Organization (ICAO) technical instructions and the International Air Transport Association Dangerous Goods Regulations now permit airline passengers and crew to carry on and use certain fuel cell power systems and fuel cell cartridges containing methanol. On April 30, 2008, the U.S. Department of Transportation issued a notification of final rules for adopting the regulations permitting commercial aircraft passengers and crew to bring in their carry-on baggage methanol fuel cell cartridges and fuel cell systems designed for portable electronic devices. The effective date of the final rule making was February 13, 2009.

Technology

A fuel cell is an electrochemical energy conversion device, which is similar to a battery that produces electricity from a liquid or gaseous fuel, such as methanol, and an oxidant, such as oxygen. Fuel cells are different from batteries in that they consume a reactant that can be replenished, while batteries store electrical energy chemically in a closed system.

Generally, the reactants flow in and reaction products flow out of the fuel cell. While the electrodes within a battery react and change as a battery is charged or discharged, a fuel cell's electrodes are catalytic and relatively stable.

A direct methanol fuel cell relies upon the reaction of water with methanol at the catalytic anode layer to release protons and electrons and to form carbon dioxide. The electrons pass through a circuit and generate electricity that can be used to power external devices. The protons generated through this reaction pass through the proton exchange membrane to the cathode, where they combine to form water. The anode and cathode layers of a direct methanol fuel cell are usually made of platinum ruthenium particles and platinum particles embedded on either side of a proton exchange membrane.

Strategic Agreements

In the second half of 2010, we entered into a third phase developmental contract with a leading global power tool manufacturer to evaluate our product for their future cordless power tool products. The initial agreement was entered into on April 21, 2009 for a preliminary evaluation, with the second phase contract signed in 2010. Because of Mobion®'s flexible architecture, we were able to pursue opportunities beyond the consumer electronics market.

On October 26, 2010, MTI Micro was awarded a firm fixed contract from a United States Department of Defense agency for the development of proof of concept fuel cells for technical testing and subsequent demonstration in a capabilities based experiment. The total contract is expected to provide an additional $100 thousand in revenues for MTI Micro.

On July 28, 2010, MTI Micro was awarded a cost share funding grant of $296 thousand from the New York State Energy Research and Development Authority (NYSERDA). MTI Micro has billed $290 thousand for work performed through December 31, 2010.

On April 16, 2009, we entered into a $4.8 million cost-shared development contract with the U.S. Department of Energy, or the DOE, for the commercialization of our Mobion® product solutions, with $2.4 million in funds available under this program. On April 30, 2010, MTI Micro was approved for an extension of this grant with additional funds available of $594 thousand. Through December 2010, the DOE has authorized $2.9 million of reimbursement for costs, with $6 thousand remaining on the contract. This contract expires on March 31, 2011.

On October 31, 2008, we signed an agreement with a U.S. based developer and marketer of universal chargers to evaluate the feasibility, development and production of our Mobion® products. This agreement, which took effect on August 29, 2008, will enable us to collaborate with this developer to evaluate and adopt our Mobion® technology for use with a number of their products.

On September 10, 2008, MTI Micro and Duracell, part of The Gillette Company, which is part of the Procter & Gamble Company ("Duracell") entered into a letter of intent whereby both parties agreed to explore a new relationship to collaborate on the market development and commercialization of Mobion® based fuel cell systems and methanol fuel cartridges for the consumer market.

Additionally, during the second half of 2010, we have deployed production ready units for evaluation and field testing with ten leading OEMs and seven governmental agencies, including multiple agencies within the Department of Defense. If the field testing is successful, we believe our OEMs and governmental agencies may sign supply agreements or product customization contracts with MTI Micro for final production of our Mobion® platform.

Manufacturing

We plan to outsource manufacturing of our portable power source products through third-party relationship contract manufacturers. We believe this strategy will provide us with a business model that allows us to concentrate on our core competencies of research and development and technological know-how and reduce our capital expenditures. In addition, this strategy will significantly reduce our working capital requirements for inventory because we will not incur most of our manufacturing costs until we have actually shipped our portable power source products to our customers and billed those customers for those products. To date, we established an internal developmental pilot production line to test our design and engineering capabilities and a representative office in Shanghai to facilitate our efforts to develop relationships with manufacturers and low cost component suppliers in China. We intend to rely upon third parties to forecast production requirements and have established the basic design, function, and performance of our in-house engineering capabilities to foster the successful commercialization of our

products.

The commercialization of our Mobion® power solution will depend upon our ability to reduce the costs of our portable power source products, as they are currently more expensive than existing rechargeable battery technologies. In addition, we continue to work on enhancing our Mobion® power source design, including our Mobion® Chip, to ensure its manufacturability (including engineering, verification and product testing), design for assembly, design for testability, and design for serviceability, all of which are critical to successful high-volume production.

Sales and Marketing

We plan to sell our portable power source products for incorporation into the products of our OEM customers or to be sold as accessories using their own brand. We plan to generate sales to OEM customers through direct sales employees as well as outside sales representatives and distributors. We have established sales representatives in the United States, South Korea and Japan.

We build awareness in our target markets through a series of targeted campaigns, which include our website, e-mails, conferences, tradeshows, and other standard marketing efforts. In addition, we provide progress reports on our Mobion® developments through a wide array of publications, active public relations, updates with industry analysts and the investment community, and speaking engagements.

In addition, we plan to sell our products in the military market, with minor modifications, as a power accessory meeting military specifications and power requirements. We believe the reduced size and weight of our power solution is a benefit compared to the current batteries used by the military. We plan to generate sales to the military market through direct sales, system integration companies, and outside sales representatives that specialize in government contracts.

Competition

We expect that the primary competitive factor in our portable power source business will be market acceptance of our portable power source products as an alternative power source to conventional lithium-ion and other rechargeable batteries. Market acceptance of our portable power source products will depend on a wide variety of factors, including the compatibility of direct methanol fuel cell power sources with portable electronic devices and the market’s assessment of the advantages offered by our products in terms of size, weight, power density and duration, safety, reliability, and environmental friendliness when measured against price disadvantages. We anticipate direct competition from large Asian-based companies, including Toshiba (Corporation), which recently introduced a fuel cell charger, and some of our potential OEM customers.

Product Development

We have improved the capabilities of our Mobion® Chip technology which we expect will continue to evolve as we integrate greater functionality into our designs. This continuous iterative integration process is intended to reduce the size, simplify the design and construction, and reduce assembly complexity of our technology. We continue to improve the product design of the Mobion® Chip and believe that future product generations will deliver performance improvements in terms of energy density, size, weight, and power duration. Additionally, we have improved on our development of interchangeable methanol fuel cartridges for use with our Mobion® devices.

Intellectual Property and Proprietary Rights

We rely on a combination of patents (both national and international), trade secrets, trademarks, and copyrights to protect our intellectual property. Our strategy is to apply for patent protection for all significant design requirements. Additionally, we systematically analyze the existing intellectual property landscape for direct methanol fuel cells to determine where the greatest opportunities for developing intellectual property exist. We also enter into standard confidentiality agreements with our employees, consultants, vendors, partners and potential customers and seek to control access to and distribution of our proprietary information.

As of December 31, 2010, MTI Micro had filed over 106 U.S. patent applications, 54 of which have been awarded. Of the awarded patents, 44 are assigned to us and 10 are assigned to Duracell as part of our strategic alliance agreement with them. We have filed 33 Patent Cooperation Treaty Applications in multiple countries, including Japan, the European Union, South Korea and Australia, 5 of which have been issued. We have developed a portfolio of patent applications in areas including fuel cell systems, fuel refill and packaging, fuel, components, manufacturing processes, and system packaging.

Research and Development

MTI Instruments conducts research and develops technology to support its existing products and develop new products. Management believes that the success of the enterprise depends to a large extent upon innovation, technological expertise and new product development.

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MTI Micro's research and development team is responsible for advanced research, product planning, design and development, and quality assurance. Through our supply chain, we are also working with subcontractors in developing specific components of our technologies. The primary objective of our research and development program is to advance the development of our direct methanol fuel cell technology to enhance the commercial value of our products and technology, as well as to develop next generation fuel cell products.

MTI, through its subsidiaries, MTI Micro and MTI Instruments, has incurred research and development costs of approximately $8.3 million, $5.4 million and $3.9 million for the years ended December 31, 2008, 2009, and 2010, respectively. We expect to continue to invest in research and development in the future.

Employees

As of December 31, 2010, we had 51 employees. Of these employees, 14 were involved in our new energy segment and 35 were involved in our test and measurement instrumentation business. Two of our employees are also involved in corporate functions.

Properties

We presently lease two premises in the United States and one office in Shanghai, China. MTI Instruments is located at 325 Washington Avenue Extension, Albany, New York. This premise consists of approximately 17,424 useable square feet of space, with the lease expiring in late 2014. MTI Micro and MTI are located at 431 New Karner Road, Albany, NY. This premise consists of approximately 20,000 useable square feet of space. The current lease expired in February 2011 and negotiations are ongoing at this time. Together, the premises are adequate for our current and foreseeable needs. The office in Shanghai, China is a representative office, with approximately 310 usable square feet of space. The lease expires in March of 2011. A search is being conducted for new space more conducive for our current needs.

Legal Proceedings

We are not currently involved in any legal proceeding that we believe would have a material adverse effect on our business or financial condition.

Availability of Information

We make 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 our website's Investor Relations page.

The public may read and copy any materials we file 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. We file 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.

Item 1A: Risk Factors

Factors Affecting Future Results

This Annual Report on Form 10-K and the documents we have filed with the SEC that are incorporated by reference into this Annual Report on 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 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 history of recurring net losses and the risk of continued net losses;
- our independent auditors have included a going concern paragraph in their opinion:
- sales revenue growth of our test and measurement instrumentation business may not be achieved;
- the dependence of our test and measurement instrumentation business on a small number of customers and potential loss of government contracts;
- our need to raise additional financing for our new energy segment;
- our ownership position in MTI Micro may be reduced further as a result of our need to seek external financing for MTI Micro’s operations;
- risks related to developing Mobion® direct methanol fuel cells and whether we will ever successfully develop reliable and commercially viable Mobion® fuel cell solutions;
- our portable power source products or our customers’ products that utilize our portable power source products may not be accepted by the market;
- our inability to build and maintain relationships with our customers;
- our lack of experience in manufacturing fuel cell systems on a commercial basis;
- our dependence on others for our production requirements for our portable power source products;
- our dependence on our manufacturing subcontractors to provide high levels of productivity and satisfactory delivery schedules for our portable power source products;
- our dependence on third-party suppliers for most of the manufacturing equipment necessary to produce our portable power source products;
- our inability to obtain sufficient quantities of components and other materials, including platinum and ruthenium, necessary for the production of our portable power source products;
- our dependence on OEMs integrating Mobion® fuel cell systems into their devices;
- our lack of long-term purchase commitments from our customers and the ability of our customers to cancel, reduce, or delay orders for our products;

- risks related to protection and infringement of intellectual property;
- our inability to commercialize our proposed portable power source solutions and develop new product solutions on a timely basis;
- our inability to develop and utilize new technologies that address the needs of our customers;
- intense competition in the direct methanol fuel cell and instrumentation businesses;
- changes in policies by U.S. or foreign governments that hinder, disrupt, or economically disadvantage international trade;

- the impact of future exchange rate fluctuations;
- the uncertainty of the U.S. economy;
- the historical volatility of our stock price;
- the cyclical nature of the electronics industry;
- failure of our strategic alliances to achieve their objectives or perform as contemplated and the risk of cancellation or early termination of such alliance by either party;
- product liability or defects;
- risks related to the flammable nature of methanol as a fuel source;
- the loss of services of one or more of our key employees or the inability to hire, train, and retain key personnel;
- significant periodic and seasonal quarterly fluctuations in our results of operations;
- our dependence on sole suppliers or a limited group of suppliers for both business segments;
- risks related to the limitation of the use of our net operating losses in the event of certain ownership changes; and
- other factors discussed under the headings “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 our forward-looking statements. Also refer to Factors Affecting Future Results.

We have incurred recurring net losses and anticipate continued net losses as we execute our commercialization plan for our portable power source business. If we do not raise financing in the next few months, we will be required to dramatically downsize, discontinue, or sell our portable power source business and/or our test and measurement instrumentation business.

We have incurred recurring net losses, including net losses of $12.5 million in 2008, $3.1 million in 2009, and $1.8 million in 2010. As a result of ongoing operating losses, we had an accumulated deficit of approximately $122 million as of December 31, 2010. Subject to cash availability, we expect to continue to make significant expenditures and incur substantial expenses as we develop and commercialize our proposed portable power source products; develop our manufacturing, sales, and distribution networks; implement internal systems and infrastructure; and hire additional personnel. As a result, we expect to continue to incur significant losses as we execute our plan to commercialize our portable power source business and may never achieve or maintain profitability. We will be unable to satisfy our current obligations solely from cash generated from operations or become profitable until we successfully commercialize our portable power source business. If we continue to incur substantial losses and are unable to secure additional financing, we could be forced to discontinue or curtail our business operations; sell assets at unfavorable prices; or merge, consolidate, or combine with a company with greater financial resources in a transaction that may be unfavorable to us.

At present, the Company does not expect to continue to fund MTI Micro on a long-term basis. Based on the Company’s projected cash requirements for operations and capital expenditures and its current cash and cash equivalents of $1.1 million at December 31, 2010,

management believes it will have adequate resources to fund its current operations, excluding MTI Micro operations, but there can be no assurance. Since the company will no longer fund MTI Micro, the subsidiary has sought other sources of funding, but there is no assurance that such funding will be available on acceptable terms, if at all.

Our ownership position in MTI Micro may be reduced as a result of external financing for MTI Micro's operations, which could limit our ability to control the operations.

As of December 31, 2010, we owned approximately 50.6% of the outstanding equity in MTI Micro and have control over the operations of this subsidiary.

In September 2008, MTI Micro executed a Convertible Note and Warrant Purchase Agreement (the "Purchase Agreement"), Secured Convertible Promissory Note Agreements (the "Bridge Notes"), Security Agreement (the "Security Agreement') and Warrant Agreements (the "Warrants"). The investors (the "Bridge Investors") included MTI, in the form of conversion of existing debt of $700 thousand, Dr. Walter L. Robb, a member of the Company's and MTI Micro's Boards of Directors, and Counter Point Ventures Fund II, LP (Counter Point). Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb. The Bridge Notes, along with amendments in 2009, allowed MTI Micro to borrow up to an aggregate of $3.5 million, including conversion of the outstanding debt totaling $700 thousand owed to the Company. Effective December 4, 2009, MTI Micro had sold all additional Bridge Notes. The Bridge Notes had an interest rate of 10%, compounded annually.

In December 2009, MTI Micro entered into a Secured Convertible Promissory Note Negotiated Conversion Agreement (the "Conversion Agreement") with the Company and the other Bridge Investors. The parties agreed to, among other things, convert the aggregate principal and accrued interest amount of $3,910,510 outstanding under the Bridge Notes into an aggregate of 55,864,425 shares of Common Stock of MTI Micro using a conversion price per share of $0.07 (the "Negotiated Conversion"). Warrants to purchase MTI Micro common stock at $0.07 per share were issued to Bridge Investors for an aggregate of 5,081,237 shares. As an incentive for MTI Micro to agree to the terms of the Negotiated Conversion, MTI Micro, the Company and the Bridge Investors also agreed that immediately prior to the consummation of the Negotiated Conversion, MTI Micro would issue to each current MTI Micro stockholder (including the Company), without consideration, a warrant ("Micro Warrant") exercisable after one (1) year for up to 50% of the aggregate number of shares of Common Stock each such MTI Micro stockholder currently held in MTI Micro, at $0.07 per share and with a term of seven (7) years. Accordingly, immediately prior to the consummation of the Negotiated Conversion on December 9, 2009, MTI Micro issued Micro Warrants exercisable for an aggregate of 32,779,310 shares of MTI Micro Common Stock.

As a result of the negotiated conversion in December 2009 of an aggregate principal and accrued interest amount of $3,910,510 outstanding under the Bridge Notes, the Company's ownership interest in MTI Micro decreased from approximately 97.3% to approximately 61.8%, or 67.8% on a fully-diluted basis including the Micro Warrants issued to all current MTI Micro stockholders and the Bridge Warrants.

In January 2010, MTI Micro entered into a Common Stock and Warrant Purchase Agreement (the "Purchase Agreement") with Counter Point Ventures Fund II, L.P. ("Counter Point"). Pursuant to the Purchase Agreement, MTI Micro issued and sold to Counter Point 28,571,429 shares of common stock of Micro at a purchase price per share of $0.07, over a period of twelve months, and 5,714,286 warrants ("Warrants") to purchase shares of Micro Common Stock at an exercise price of $0.07 per share. After the sale of all stock and warrants under the Purchase Agreement, the Company continued to hold an aggregate of 55.8% of the fully-diluted common stock of MTI Micro, excluding stock options outstanding.

On February 9, 2011, MTI Micro entered into Amendment No. 1 to Common Stock and Warrant Purchase Agreement (the "Amendment") with Counter Point. The Amendment allows MTI Micro to draw down $450 thousand through June 30, 2011 in exchange for 6,428,574 shares of MTI Micro Common Stock and 1,285,715 warrants. The funds are available through monthly "Closings", with the amount available of $90 thousand for the month of February, $45 thousand for the month of March, and $105 thousand for the months of April through June.

In addition, we do not currently expect to advance additional long-term resources to MTI Micro to fund its continued direct methanol fuel cell development and commercialization programs. Instead, MTI Micro will seek additional capital from external sources to fund future development and operations. Depending on the valuation of MTI Micro at the time of future financings, if any, our ownership position could be substantially diluted, and we may no longer have sufficient equity to control the operations of MTI Micro. If MTI Micro is unable to secure the necessary additional external financing, we may be forced to substantially downsize or eliminate its operations.

As a result of the financing mentioned above or the exercise of outstanding stock options, the Company is expected to be further diluted and will likely experience a change of ownership position in MTI Micro.

We currently do not have sufficient funds to commercialize our portable power source products.

In order to continue full commercialization of its micro fuel cell solution, MTI Micro will need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- obtain additional government or private funding of the Company's direct methanol fuel cell research, development, manufacturing readiness and commercialization;
- secure additional debt or equity financing; or
- further reduce its current expenditure run-rate.

There is no guarantee that resources will be available to MTI Micro on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that MTI Micro will be able to reduce its expenditure run-rate without materially and adversely affecting its business. MTI Micro had cash and cash equivalents as of December 31, 2010 of $198 thousand. Additionally, in January 2011, MTI Micro received the final drawdown from the Purchase Agreement of $113 thousand, $77 thousand from NYSERDA, and in February 2011 received the first drawdown of the Amendment of $90 thousand. MTI Micro also has $35 thousand in both billable and outstanding invoices on the NYSERDA contract, $6 thousand on the DOE contract and $360 thousand remaining on the Amendment, available to it through monthly closings through June 30, 2011.

In order to conserve cash and extend operations while we pursue any additional necessary financing, we have reduced operating expenses effective January 1, 2011. There is no assurance that funds raised in any financing will be sufficient, that the financing will be available on terms favorable to us or to existing stockholders and at such times as required, or that we will be able to obtain the additional financing required for the continued operation and growth of our business. During the last twenty eight months, MTI Micro has raised $4.7 million in external debt and equity financing. If we raise additional funds by issuing equity securities, MTI Micro's stockholders will experience further dilution. Additional debt financing, if available, may involve restrictive covenants. Any debt financing or additional equity financing may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our research and development programs, or discontinue our portable power source business. Without other resources, management currently believes it will need to make significant changes to its operations before the third quarter of 2011.

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

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

We currently derive all of our product revenue from our test and measurement instrumentation business.

Our test and measurement instrumentation business is subject to a number of risks, including the following:

- a continued slow down or cancellation of sales to the military as a result of a potential redeployment of governmental funding;
- the company may not be able to maintain, improve, or expand its direct and indirect channels of distribution;
- a failure to expand or maintain the business as a result of competition, a lack of brand awareness, or market saturation; and
- an inability to launch new products as a result of intensive competition, uncertainty of new technology development, and developmental timelines.

In addition, our test and measurement instrumentation products can be sold in quantity to a relatively few number of customers, resulting in a customer concentration risk. This business experienced a significant decline in sales in 2008 with comparable sales in 2009, and a sales growth of $900 thousand for 2010. The further loss of any significant portion of such customers or a material adverse change in the financial condition of any one of these customers could have a material adverse effect on our business.

If we are required to discontinue our portable power source business due to lack of funding, all of our corporate overhead costs would be allocated to the test and measurement instrumentation business.

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

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

- continuing our research and development efforts;
- finalizing the design of our portable power source products;
- securing OEM customers to incorporate our portable power source products into products sold by them;
- arranging for adequate manufacturing capabilities; and
- completing, refining, and managing our supply chain and distribution channels.

Additionally, our technology is new and complex, and there may be technical barriers to the development of our portable power source products. The development of our portable power source products may not succeed or may be significantly delayed. Our portable power source products will be produced through manufacturing arrangements that have not been finalized or tested on a commercial scale. If we fail to successfully develop or experience significant delays in the development of our portable power source products, or if there are significant delays in commercialization, we are unlikely to recover those losses, thus making it impossible for us to become profitable through the sales of these products. This would materially and adversely affect our business and financial condition. If adequate funds are not available by the second quarter of 2011, we may have to delay development or commercialization of our portable power source products, or license to third parties the rights to commercialize products or technologies that we would otherwise seek to commercialize. Any of these factors could harm our business and financial condition.

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

We may experience an ownership change which would result in a limitation of the use of our net operating losses.

As of December 31, 2010, it is estimated that MTI has net operating loss carryforwards of approximately $51.9 million and MTI Micro has net operating loss carryforwards of approximately $15.3 million As a result of the conversion of the bridge notes in December 2009, MTI no longer maintained an 80% or greater ownership in MTI Micro. Thus, MTI Micro is no longer included in Mechanical Technology, Inc. and Subsidiaries' consolidated federal and combined New York State tax returns, effective December 9, 2009. Also as a result of the conversion of the bridge note, MTI Micro may have experienced a Section 382 ownership change, which would further reduce their NOLs by an estimated $6.7 million. Our ability to utilize both the MTI and MTI Micro NOL carryforwards, including any future NOL carryforwards that may arise, may be limited by Section 382 of the Internal Revenue Code of 1986, as amended, if we or MTI Micro undergo any further “ownership changes” as a result of subsequent changes in the ownership of our outstanding common stock pursuant to the exercise of the warrants, the conversion of the MTI Micro’s bridge notes, or otherwise. A corporation generally undergoes an “ownership change” when the ownership of its stock, by value, changes by more than 50 percentage points over any three-year testing period. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change NOL carryforwards and certain recognized built-in losses.

Pursuant to the Internal Revenue Service's consolidated tax return regulations (IRS Regulation Section 1.1502-36), upon MTI Micro leaving the Mechanical Technology, Inc. and Subsidiaries consolidated group, MTI has elected to reduce a portion of its stock tax basis in MTI Micro by "reattributing" a portion of MTI Micro's net operating loss carry forwards to MTI, for an amount equivalent to its built in loss amount in MTI's investment in MTI Micro's stock. As the result of MTI making this election with its December 31, 2009 tax return, MTI reattributed approximately $45.2 million of MTI Micro's net operating losses (reducing its tax basis in MTI Micro's stock by the same amount), leaving MTI Micro with approximately $13 million of separate company net operating loss carry forwards at the time of conversion of the Bridge Notes. However, as noted above, as the result of a potential Section 382 limitation, caused by the conversion, it is estimated that at least $6.69 million of these net operating losses may expire prior to utilization.

Our common stock was delisted from the NASDAQ Stock Market, which has adversely affected the price of our stock and the ability of our stockholders to trade in our stock.

In April 2009, we voluntarily delisted our common stock from the NASDAQ Stock Market to reduce expenses and to avoid a likely involuntary delisting for failure to comply with the continued listing requirements. Our common stock subsequently began trading on the Pink Sheets under the symbol "MKTY PK." As a result of the delisting, the liquidity in our stock has decreased, which adversely affected the price of our stock, which may make it more difficult for you to trade in our stock.

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

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

- our failure to produce portable power source products that compete favorably against other products on the basis of price, quality, performance, and life;
- competition from conventional lithium-ion or other rechargeable battery systems;
- the ability of our technologies and product solutions to address the needs of the electronic device markets, the requirements of OEMs, and the preferences of end users;
- our ability to provide OEMs with portable power source products that provide advantages in terms of size, weight, peak power, power duration, reliability, durability, performance, and value-added features compared to alternative solutions; and
- our failure to develop and maintain successful relationships with OEMs, manufacturers, distributors, and others as well as strategic partners.

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

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

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

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

We plan to produce portable power source products that our OEM customers incorporate into their products. As a result, the success of our proposed portable power source products will depend upon the widespread market acceptance of the products of our OEM customers. We will not control or influence the manufacture, promotion, distribution, or pricing of the products that incorporate our portable power source products. Instead, we will depend on our OEM customers to manufacture and distribute products incorporating our portable power source products and to generate consumer demand through their marketing and promotional activities. Even if our technologies and products successfully meet our customers' price and performance goals, our sales would be harmed if our OEM customers do not achieve commercial success in selling their products to consumers that incorporate our portable power source products.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- difficulties with other suppliers of components for the products;

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

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

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

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

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

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

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

Technological advances, the introduction of new products, and new design techniques could adversely affect our business prospects unless we are able to adapt to the changing conditions. Technological advances could render our proposed portable power source products obsolete, and we may not be able to respond effectively to the technological requirements of evolving markets. As a result, we will be required to expend substantial funds for and commit significant resources to

- continue research and development activities on portable power source products;
- hire additional engineering and other technical personnel; and
- purchase advanced design tools and test equipment.

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

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

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

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

The electronic, semiconductor, solar, automotive and general instrumentation industries are subject to constant technological change. Our future success will depend on our ability to respond appropriately to changing technologies and changes in product function and quality. If we rely on products and technologies that are not attractive to end users, we may not be successful in capturing or retaining any significant market share. In

addition, any new technologies utilized in our portable power source products may not perform as expected or as desired, in which event our adoption of such products or technologies may harm our business.

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

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

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

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

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

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

Changes in policies by the U.S. or foreign governments resulting in, among other things, higher taxation, currency conversion limitations, restrictions on the transfer of funds, or the expropriation of private enterprises also could have a material adverse effect on us. Any actions by countries in which we conduct business to reverse policies that encourage foreign investment or foreign trade also could adversely affect our operating results. In addition, U.S. trade policies, such as “most favored nation” status and trade preferences for certain Asian nations, could affect the attractiveness of our products to our U.S. customers and adversely impact our operating results.

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

We transact our business predominantly in U.S. dollars and bill and collect our sales in U.S. dollars. In 2010, approximately 30% of our revenue was from customers outside of the United States. A weakening of the dollar could cause our overseas vendors to require renegotiation of either the prices or currency we pay for their goods and services. Similarly, a strengthening of the dollar could cause our products to be more expensive for our international customers, which could cause the demand for our products and our revenue to decline.

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

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

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

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

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

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

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

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

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

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

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

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

- our success in designing and introducing new portable power source products;
- our ability to predict the evolving needs of our customers and to assist them in incorporating our technologies into their new products;
- our ability to meet our customer’s requirements for small size, low weight, peak power, long power duration, ease of use, reliability, durability, and small form factor;
- the quality of our customer services;

- the rate at which customers incorporate our products into their own products;
- product or technology introductions by our competitors; and

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

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

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

Our operating results may experience significant fluctuations.

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

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

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

Item 2: Properties

We lease office, manufacturing and research and development space in the following locations:

Location	Segment	Primary Use	Approximate Number of Square Feet	Lease Expiration
Albany, NY	Test and Measurement Instrumentation	Manufacturing, office and sales	17,400	November, 2014
Albany, NY	New Energy	Corporate headquarters, office and research and development	20,000	February, 2011
Shanghai, China	New Energy	Representative office	300	March, 2011

We believe our facilities are generally well maintained and adequate for our current needs and for expansion, if required. We further believe that a lease renewal on reasonable terms for these properties may be achieved.

Item 3: Legal Proceedings

At any point in time, we 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. We do not believe there are any such proceedings presently pending which could have a material adverse effect on our financial condition.

Item 4: Reserved

PART II

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

Price Range of Common Stock

Our common stock is traded on the OTC Markets at PinkSheets.com under the symbol "MKTY.PK". The following table sets forth the high and low sale prices of our common stock as reported by Pink Sheets for the periods indicated:

	High	Low
Fiscal Year Ended December 31, 2009		
First Quarter	$ 1.87	$ .75
Second Quarter	1.00	.10
Third Quarter	1.90	.51
Fourth Quarter	1.54	.30
Fiscal Year Ended December 31, 2010		
First Quarter	$ 1.13	$ .66
Second Quarter	.90	.42
Third Quarter	.80	.25
Fourth Quarter	.89	.55

Item 6: Selected Financial Data

The following table sets forth our summary consolidated financial data for the fiscal years ended December 31, 2008, 2009 and 2010 which was derived from our audited consolidated financial statements included elsewhere in this Annual Report on Form 10-K. We derived our summary consolidated financial data for the years ended December 31, 2006 and 2007 set forth in the following table from our audited consolidated financial statement not included in this report. You should read the following summary consolidated financial data together with the information under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and our consolidated financial statements, including the related notes thereto.

(In thousands, except per share data)	Years Ended December 31,				
	2006	2007	2008	2009	2010
Statement of Operations Data					
Product revenue	$ 7,667	$ 9,028	$ 6,224	$ 6,263	$ 7,179
Funded research and development revenue	489	1,556	1,154	2,043	1,234
Gain (loss) on derivatives	182	2,967	655	(29)	(3)
Net gain on sale of securities available for sale	4,289	2,549	1,018	—	—
(Loss) income from continuing operations before income taxes, equity in holdings’ losses and non-controlling interest	(12,980)	(7,609)	(10,760)	(3,572)	(3,392)
Income tax (expense) benefit	(1,895)	(2,548)	(2,004)	208	(4)
Non-controlling interests in losses of consolidated subsidiary	1,208	582	260	265	1,638
Net loss	(13,667)	(9,575)	(12,504)	(3,099)	(1,758)
Basic and Diluted Loss Per Share					
Loss from continuing operations	$ (3.46)	$ (2.01)	$ (2.62)	$ (0.65)	$ (0.37)
Loss per share	$ (3.46)	$ (2.01)	$ (2.62)	$ (0.65)	$ (0.37)
Balance Sheet Data (as of period end):					
Working capital	$ 23,076	$ 11,347	$ 252	$ 1,163	$ 1,534
Securities available for sale	10,075	4,492	—	—	—
Total assets	33,811	18,716	5,511	3,741	3,601
Total long-term obligations	3,664	904	254	—	—
Total stockholders' equity (deficit) before non-controlling interest	22,871	13,803	1,515	(1,135)	(1,446)

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

The following discussion of our financial condition and results of operations should be read in conjunction with our Consolidated Financial Statements and the related notes included elsewhere in this Annual Report. This discussion contains forward-looking statements, which involve risk and uncertainties. Our actual results could differ materially from those anticipated in the forward-looking statements as a result of certain factors, including those discussed in Item 1A: "Risk Factors" and elsewhere in this Annual Report.

Overview

MTI operates in two segments, the Test and Measurement Instrumentation segment, through MTI Instruments, Inc. (MTI Instruments), and the New Energy segment conducted through MTI MicroFuel Cells, Inc. (MTI Micro).

Test and Measurement Segment – MTI Instruments is a worldwide supplier of metrology, portable balancing equipment and inspection systems for semiconductor wafers. Our products use state-of-the-art technology to solve complex real world applications in numerous industries including automotive, semiconductor, solar cell manufacturing, commercial and military aviation and data storage. We are continuously working on ways to expand our sales reach, including more sales coverage in Europe and Asia, as well as a focus on internet marketing.

Our test and measurement segment has three product groups: precision instruments, semiconductor and solar metrology systems, and aviation balancing systems. Our products consist of electronic, computerized gauging instruments for position, displacement and vibration applications for the design, manufacturing/production and test markets; metrology tools for wafer characterization of semiconductor and solar wafers; tensile stage systems for materials testing at academic and industrial settings; and engine balancing and vibration analysis systems for both military and commercial aircraft.

We currently have a multi-year U.S. Air Force contract to service and repair 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 $6.5 million in sales for the Company between 2009 and 2014. As of December 31, 2010, MTI Instruments had recorded $1.8 million in orders, approximately 28.2% of the five-year contract's total value.

New Energy Segment - MTI Micro is developing and commercializing off-the-grid power solutions for various portable electronic devices. Our patented proprietary direct methanol fuel cell technology platform, called Mobion®, converts 100% methanol fuel to usable electricity capable of providing continuous power as long as necessary fuel flows are maintained. Our proprietary fuel cell power solution consists of two primary components integrated in an easily manufactured device: the direct methanol fuel cell power engine, which we refer to as our Mobion® Chip, and methanol fuel cartridges. The methanol used by the technology is fully biodegradable. We have demonstrated power density of over 100 mW/cm 2, while producing more than 1,800 Wh/kg or 1.4 Wh/cc of fuel from its direct methanol fuel feed, which we believe is the highest performance achieved in a vapor-feed, passive water management direct methanol fuel cell, which should allow for more dense micro fuel cell systems. For these reasons, we believe our technology offers a superior power solution compared to current lithium-ion and similar rechargeable battery systems currently used by original equipment manufacturers (OEMs) and branded partners in many handheld electronic devices, such as smart phones, mobile phone accessories, digital cameras, portable gaming devices, e-readers and other portable devices. We believe our platform will facilitate further developments of numerous electronic product advantages, including smaller size, environmental friendliness, greatly extended run-time of current portable devices and simplicity of design, all critical for commercialization in the consumer market, and can be implemented as three different product options: a handheld power generator for consumer electronic devices, a snap-on or attached power accessory, or an embedded fuel cell in handheld devices.

Our Mobion® technology is protected by a patent portfolio that includes 54 US patents and 5 Patent Cooperation Treaty Foreign patents issued, covering five key technologies and manufacturing areas, one of which is the process that eliminates the need for active water recirculation pumps or the inclusion of water as a fuel dilutant. The water required for the electrochemical process is transferred internally within the Mobion® Chip from the site of water generation on the air-side of the cell. This internal flow of water takes place without the need for any pumps, complicated re-circulation loops or other micro-plumbing tools.

We currently have strategic agreements with a global Japanese consumer electronics company, with a U.S. based developer and marketer of universal chargers, and a letter of intent with Duracell, part of the Procter & Gamble Company. In the second half of 2010, we have entered into a third phase developmental contract with a global power tool manufacturer, as well as a firm fixed price contract for the development of proof of concept fuel cells for technical testing with a United States Department of Defense agency. Additionally, during the second half of 2010, we have deployed production ready units for evaluation and field testing with ten leading OEMs and seven governmental agencies, including multiple agencies within the Department of Defense. If the field testing is successful, we believe our OEMs and governmental agencies may sign supply agreements or product customization contracts with MTI Micro for final production of our Mobion® platform.

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Liquidity

Our cash requirements depend on numerous factors, including completion of our portable power source products development activities, our ability to commercialize our portable power source products, market acceptance of our portable power source products, and other factors.

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

(Dollars in thousands)	Years ended December 31,		
	2008	2009	2010
Cash and cash equivalents	$ 1,662	$ 785	$ 1,118
Working capital	252	1,163	1,534
Net loss attributed to MTI	(12,504)	(3,099)	(1,758)
Net cash used in operating activities	(10,346)	(2,170)	(1,506)
Purchase of property, plant and equipment	(181)	(7)	(47)

From inception through December 31, 2010, we have incurred an accumulated deficit of $122 million, and we expect to incur losses for the foreseeable future as we continue micro fuel cell product development and commercialization programs. We expect that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, operating results of our businesses.

At present, the Company does not expect to continue to provide equity funding for MTI Micro's development and commercialization of its portable power source products. MTI Micro had cash and cash equivalents as of December 31, 2010 of $198 thousand. In January 2011, MTI Micro received the final drawdown from the Purchase Agreement of $113 thousand and $77 thousand from NYSERDA. MTI Micro also has $35 thousand in both billable and outstanding invoices on the NYSERDA contract and $6 thousand on the DOE contract.

On February 9, 2011, MTI Micro entered into Amendment No. 1 to Common Stock and Warrant Purchase Agreement (the "Amendment") with Counter Point. The Amendment allows MTI Micro to draw down $450 thousand through June 30, 2011 in exchange for 6,428,574 shares of MTI Micro Common Stock at a purchase price per share of $0.07, and 1,285,715 warrants to purchase shares of Micro Common Stock equal to 20% of the shares of Micro Common Stock purchased under the Purchase Agreement at an exercise price of $0.07 per share. The funds are available through monthly "Closings", with MTI Micro raising $90 thousand from the sale of 1,285,714 shares of Micro Common Stock and Warrants to purchase 257,143 shares of Micro Common Stock to Counter Point in the month of February, and additional amounts available of $45 thousand for the month of March, and $105 thousand for the months of April through June. These subsequent Closings may occur at MTI Micro's sole discretion during the Closing Periods upon delivery of written notice by MTI Micro to Counter Point of its desire to consummate a Closing, and Counter Point's acceptance of such offer under the Amendment on the terms agreed upon with MTI Micro. In the event the terms and conditions of the Purchase Agreement no longer reflect current market conditions or otherwise, either party may elect not to participate in a Subsequent Closing(s) or the parties may amend the Purchase Agreement on mutually agreeable terms with respect to such Subsequent Closing(s).

Dr. Robb and Counter Point beneficially held approximately 41.4% of the outstanding common shares and warrants of MTI Micro of December 31, 2010, and as of March 15, 2011 hold 42.4% of the outstanding common shares and warrants of MTI Micro.

If MTI Micro were to issue and sell the remainder of the 6,428,574 shares under the Amendment, the Company would hold an aggregate of 48.0% of the outstanding common shares and 53.6% of the outstanding common shares and warrants of MTI Micro. Further dilution could occur if the outstanding options were exercised.

MTI Micro will be required to raise additional funds through issuance of its equity or debt, government funding and/or explore other strategic alternatives including but not limited to the sale of assets and/or the company. If MTI Micro is unable to raise additional financing, it may be required to discontinue or severely reduce its business operations.

In order to conserve cash and extend operations while we pursue any additional necessary financing, we have reduced operating expenses effective January 1, 2011. There is no assurance that funds raised in any financing will be sufficient, that the financing will be available on terms favorable to us or to existing stockholders and at such times as required, or that we will be able to obtain the additional financing required for the continued operation and growth of our business. During the last twenty eight months, MTI Micro has raised $4.7 million in external debt and equity financing. If we raise additional funds by issuing equity securities, MTI Micro's stockholders will experience further dilution. Additional debt financing, if available, may involve restrictive covenants. Any debt financing or additional equity financing may contain terms that are not favorable to us or our stockholders. If we raise additional funds through collaboration and licensing arrangements with third parties, it may be necessary to relinquish some rights to our technologies or our products, or grant licenses on terms that are not favorable to us. If we are unable to raise adequate funds, we may have to liquidate some or all of our assets or delay, reduce the scope of or eliminate some or all of our research and development programs, or discontinue our portable power source business. Without other resources, management currently believes it will need to make significant changes to its operations before the third quarter of 2011.

Management believes that MTI Instruments will continue to generate positive cash flow and would be able to fund its current operations. However, no assurances can be provided on this subsidiary's ability to continue as a going concern given the level of uncertainty involved with the parent company's operations.

Results of Operations

Results of Operations for the Three Months Ended December 31, 2010 Compared to the Three Months Ended December 31, 2009 and for the Year Ended December 31, 2010 Compared to December 31, 2009.

Test and Measurement Instrumentation Segment

Product Revenue: Product revenue in our test and measurement instrumentation segment for the three months ended December 31, 2010 increased in comparison to the same period in 2009 by $671 thousand, or 34.1%, to $2.6 million. This rise in revenue was due to increased wafer metrology system sales and capacitance product sales, combined with an overall increase in US Air Force activity under existing multi-year contracts (see table below). For both the quarter ended December 31, 2010 and the quarter ended December 31, 2009, the US Air Force was the top customer for the segment; accounting for $743 thousand, or 28.2%, of the fourth quarter revenue in 2010 and $461 thousand, or 23.4%, of the fourth quarter revenue in 2009. The segment's top commercial customer for the fourth quarter of 2010 accounted for $193 thousand, or 7.3%, of the quarterly revenue, as compared to the top commercial customer accounting for $459 thousand, or 23.3%, of the fourth quarter revenue in 2009.

Product revenue in our test and measurement instrumentation segment for the year ended December 31, 2010 increased by $915 thousand, or 14.6%, in comparison to 2009, to $7.2 million. As with the prior year, the US Air Force was the top customer for the segment; accounting for $1.6 million, or 22.0%, of the total year revenue, as compared to $1.2 million, or 19.0%, of the total revenue in 2009. The segment's top commercial customer in 2010 accounted for $560 thousand, or 7.8%, of the annual revenue, as compared to the top commercial customer last year accounting for $618 thousand, or 9.9%, of the total 2009 revenue.

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

(Dollars in thousands)		Revenues for the Three Months Ended December 31,		Revenue Contract to Date December 31, 2010	Total Contract Orders Received to Date December 31, 2010
Contract(1)	Expiration	2009	2010		
$2.3 million Air Force New PBS-4100 Systems	06/19/2008(2)	$ —	$ —	$ 2,166	$ 2,166
$8.8 million Air Force Retrofit and Maintenance of PBS-4100 Systems	06/19/2008(3)	$ —	$ —	$ 8,009	$ 8,009
$6.5 million Air Force Retrofit and Maintenance of PBS-4100 Systems	09/27/2014(4)	$ 439	$ 629	$ 1,825	$ 1,828

(Dollars in thousands)	Revenues for the Twelve Months Ended December 31,		Revenue Contract to Date	Total Contract Orders Received to Date

Contract(1)	Expiration	2009	2010	December 31, 2010	December 31, 2010
$2.3 million Air Force New PBS-4100 Systems	07/28/2010(2)	$ 513	$ 57	$ 2,166	$ 2,166
$8.8 million Air Force Retrofit and Maintenance of PBS-4100 Systems	06/19/2008(3)	$ 50	$ —	$ 8,009	$ 8,009
$6.5 million Air Force Retrofit and Maintenance of PBS-4100 Systems	09/27/2014(4)	$ 439	$ 1,386	$ 1,825	$ 1,828

(1) Contract values represent maximum potential values and may not be representative of actual results.
(2) Date represents expiration of contract, including all three potential option extensions.
(3) The contract expiration date has passed; however, one delivery order remains open under the contract.
(4) Date represents expiration of contract, including all four potential option extensions.

Cost of Product Revenue: Cost of product revenue in our test and measurement instrumentation segment for the three months ended December 31, 2010 increased in comparison to the same period in 2009 by $209 thousand, or 26.5%, to $997 thousand. The increase corresponded to the 34.1% rise in product revenue for the quarter. Gross profit, as a percentage of product revenue, increased to 62%, compared to 60% for the same period in 2009 due to additional expense recorded in 2009 for potentially obsolete and slow-moving inventory which did not recur in 2010.

Cost of product revenue in our test and measurement instrumentation segment for the year ended December 31, 2010 increased in comparison to 2009 by $265 thousand, or 9.9%, to $2.9 million in conjunction with the aforementioned 14.6% increase in product revenue. Gross profit, as a percentage of product revenue, rose two points to 59% in 2010 due to a reduction in expense for potentially obsolete and slow-moving inventory.

Unfunded Research and Product Development Expenses: Unfunded research and product development expenses in our test and measurement segment increased $19 thousand, or 9.0%, to $231 thousand for the three months ended December 31, 2010 from $212 thousand for the three months ended December 31, 2009. This increase is attributable to increased personnel costs in the segment's engineering department during the current quarter, along with a slight increase in material spending to support existing products.

Unfunded research and product development expenses in our test and measurement segment for the year ended December 31, 2010 decreased by $6 thousand, or 0.6%, to $959 thousand from $965 thousand in 2009. This decrease is attributable to lower personnel costs in the segment's engineering department during the year, which were partially offset by increases in material spending for new product development and existing product support.

Selling, General and Administrative Expenses: Selling, general and administrative expenses in our test and measurement segment decreased by $39 thousand, or 6.9%, to $530 thousand for the three months ended December 31, 2010 from $569 thousand for the three months ended December 31, 2009. This decrease is due to reduced personnel costs, being partially offset by a slight increase in travel costs.

Selling, general and administrative expenses in our test and measurement segment increased for the year ended December 31, 2010 by $162 thousand, or 8.2%, to $1.98 million from $1.82 million for 2009. This increase is primarily the result of additional staffing in the segment's sales and business development departments.

New Energy Segment

Funded Research and Development Revenue: Funded research and development revenue in our new energy segment decreased by $334 thousand, or 73%, to $125 thousand for the three months ended December 31, 2010 from $459 thousand for the same period in 2009. All revenue recognized in 2009 was in relation to the DOE contract, which was received for the commercialization of our fuel cell product, and the majority of research and development work on this was completed in 2009. Revenue for 2010 was from both DOE and NYSERDA, as illustrated in the below charts.

Funded research and development revenue in our new energy segment decreased by $810 thousand, or 40%, to $1.23 million for the year ended December 31, 2010 from $2.04 million for the year ended December 31, 2009. The decrease in revenue was primarily the result of the research and development performed under the DOE contract in 2009 for the commercialization of our fuel cell product, while billing in 2010 has been substantially less as we entered into the market test phase of the commercialization.

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

(Dollars in thousands) Contract	Expiration(1)	Revenue for the Three Months Ended December 31, 2009	Revenue for the Three Months Ended December 31, 2010	Revenue Contract to Date
$2.99 million DOE(2)	03/31/11	$ 459	$ 39	$ 2,987
$296 thousand NYSERDA	12/31/10	-0-	86	290
Total		$ 459	$ 125	$ 3,277

(Dollars in thousands) Contract	Expiration(1)	Revenue for the Year Ended December 31, 2009	Revenue for the Year Ended December 31, 2010	Revenue Contract to Date
$2.99 million DOE(2)	03/31/11	$ 2,043	$ 944	$ 2,987
$296 thousand NYSERDA	12/31/10	-0-	290	290
Total		$ 2,043	$ 1,234	$ 3,277

(1) Dates represent expiration of contract, not date of final billing.
(2) The DOE contract was initially awarded for $2.4 million, effective for January 2009 through March 31, 2010. An extension to this was granted in April 2010, increasing total funding to $2.99 million and an expiration date of 3/31/2011. The DOE contract is a cost share contract.

Funded Research and Product Development Expenses: Funded research and product development expenses in our new energy segment for the three months ended December 31, 2010 decreased in comparison to the same period in 2009 by $516 thousand or 56% to $403 thousand from $919 thousand. This is a result of the majority of the work being performed in 2009 for the DOE contract, as discussed in funded research and development revenue above.

Funded research and product development expenses in our new energy segment for the year ended December 31, 2010 decreased by $1.56 million or 38% to $2.54 million from $4.1 million in 2009. This is a result of the majority of the work being performed in 2009 for the DOE contract, as discussed in funded research and development revenue above.

Unfunded Research and Product Development Expenses: Unfunded research and product development in our new energy segment for the three months ended December 31, 2010 decreased in comparison to the same period in 2009 by $21 thousand, or 20%, to $88 thousand in 2010 from $109 thousand in 2009. This decrease from the prior year was due to staff reductions and substantial cut backs in external development spending.

Unfunded research and product development in our new energy segment decreased by $26 thousand, or 7%, to $358 thousand for the year ended December 31, 2010 compared to 2009. This decrease from the prior year was due to staff reductions and substantial cut backs in external development spending.

Selling, General and Administrative Expenses: Selling, general and administrative expenses in our new energy segment for the three months ended December 31, 2010 increased in comparison to the same period in 2009 by $233 thousand, or 222%, to $338 thousand in 2010. This increase is due to stock option expense on MTI Micro options given to employees in 2010 of $98 thousand for the quarter, as well as a decrease in costs allocated to research and development as we move into the commercialization phase of our Mobion® product.

Selling, general and administrative expenses in our new energy segment for the year ended December 31, 2010 increased by $1.85 million, or 1,758%, to $1.95 million in 2010 from $105 thousand in 2009. This increase was primarily the result of stock option expense on MTI and MTI Micro Options awarded to employees increasing from $428 thousand in 2009 to $1.4 million in 2010 and a decrease in the allocation of costs to research and development.

Results of Consolidated Operations

Operating Loss: Operating loss for the three month period ended December 31, 2010 was $104 thousand compared to an operating loss of $547 thousand for the same period in 2009. This decrease in losses of $443 thousand, or 81%, is a result of the factors noted above.

Operating loss for the year ended December 31, 2010 compared with the operating loss for the year ended December 31, 2009 increased by $305 thousand to $3.4 million, a 10% increase, as a result of the factors noted above.

Gain (loss) on Derivatives: We recorded a loss on derivative accounting of $3 thousand for the year ended December 31, 2010 and a loss of $29 thousand on derivative accounting for the year ended December 31, 2009. Both the 2010 loss and 2009 loss are the result of derivative treatment of the freestanding warrants issued to investors in conjunction with our December 2006 capital raise.

Income Tax Benefit (Expense): Income tax benefit went from a benefit of $208 thousand in 2009 to an expense of $4 thousand for 2010. This is primarily the result of a reversal of an uncertain tax position in 2009 of $194 thousand that was recorded in 2008 and settled in 2009. Our income tax rate for the year ended December 31, 2010 was 0%, while the income tax rate for the year ended December 31, 2009 was 6%. These

tax rates were primarily the result of losses generated by operations, changes in the valuation allowance, state true-ups upon tax return filings, and permanent deductible differences for the derivative valuation.

The valuation allowance against our deferred tax assets at December 31, 2010 was $27.8 million and at December 31, 2009 was $26.4 million. We determined that it was more likely than not that the ultimate recognition of certain deferred tax assets would not be realized.

Net Losses Attributed to Non-Controlling Interests (of MTI Micro): The net loss attributed to non-controlling interests increased from $265 thousand for 2009 to $1.6 million in 2010. This is a result of the increase in the percentage of ownership of the non-controlling interest of MTI Micro in 2010 due to additional equity contributions of $1.9 million. In addition, the equity contributions of $3.4 million in 2009 occurred in September 2009; thus 2010 includes a full year of losses for these additions.

Net Income (Loss): Net Income for the three month period ended December 31, 2010 was $278 thousand compared to a loss of $530 thousand for the same period in 2009. This shift from a loss situation to an income position can be attributed to the MTII quarterly net income of $793 thousand for 2010, as compared to a net income of $276 thousand for 2009, and a reduction of the net loss for MTI Micro from $1.0 million in 2009 to $695 thousand for 2010. These are a result of the factors discussed above.

Net loss for the year ended December 31, 2010 was $1.8 million compared to a net loss of $3.1 million for 2009. This reduction in losses is a result of the factors discussed above.

Results of Operations for the Year Ended December 31, 2009 Compared to December 31, 2008.

Test and Measurement Instrumentation Segment

Product Revenue: Product revenue in our test and measurement instrumentation segment rose slightly from $6.22 million in 2008 to $6.26 million in 2009; an increase of less than 1%. As with the prior year, the U.S. Air Force remained the top customer for the segment, accounting for 19.0% of product revenue in 2009 and 15.6% in 2008. In addition, during 2009, a single U.S. based commercial customer accounted for 9.9% of total product revenue, versus 2008 when a single Japanese based commercial distributor accounted for 13.9% of total product revenue.

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

(Dollars in thousands)		Revenue Year Ended December 31,		Revenue Contract to Date December 31, 2009	Total Contract Orders Received to Date December 31, 2009
Contract(1)	Expiration	2008	2009		
$2.3 million Air Force New PBS-4100 Systems	07/28/2010(2)	$ —	$ 513	$ 2,109	$ 2,109
$8.8 million Air Force Retrofit and Maintenance of PBS-4100 Systems	06/19/2008(3)	$ 594	$ 50	$ 8,009	$ 8,009
$6.5 million Air Force Retrofit and Maintenance of PBS-4100 Systems	09/27/2014(4)	$ —	$ 439	$ 439	$ 439

(1) Contract values represent maximum potential values and may not be representative of actual results.
(2) Date represents expiration of contract, including all three potential option extensions.
(3) The contract expiration date has passed, however, one delivery order remains open under the contract.
(4) Date represents expiration of contract, including all four potential option extensions.

Cost of Product Revenue: Cost of product revenue in our test and measurement instrumentation segment decreased by $516 thousand, or 16.2%, to $2.7 million during the year ended December 31, 2009 from $3.2 million for the year ended December 31, 2008. As a percentage of product revenue, the annual cost of product revenue decreased eight percentage points (43% in 2009 compared to 51% in 2008). Margin improvements were attributed to a $406 thousand (33%) decrease in manufacturing overhead costs and a $322 thousand decrease in the annual inventory reserve expense. These were partially offset by a one percentage point drop in product margins due to the 2009 product mix.

Unfunded Research and Product Development Expenses: Unfunded research and product development decreased by $685 thousand, or 42%, to $965 thousand in 2009 in the test and measurement instrumentation segment due to staff reductions and substantial cut backs in external development spending in 2009.

Selling, General and Administrative Expenses: Selling, general and administrative expenses in our test and measurement segment decreased by $509 thousand, or 22%, to $1.8 million for the year ended December 31, 2009 from $2.3 million for the year ended December 31, 2008. This decrease was primarily the result of staff reductions, which contributed to labor and benefit savings of $303 thousand and lower spending for travel (a cost reduction of $97 thousand). Further adding to the decrease was a drop in promotional and trade show spending and an overall reduction in facility costs corresponding with a renegotiated lease for the space at MTI Instruments.

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New Energy Segment

Funded Research and Development Revenue: Funded research and development revenue in our new energy segment increased by $890 thousand, or 77%, to $2.04 million for the year ended December 31, 2009 from $1.15 million for the year ended December 31, 2008. The increase in revenue was primarily the result of the full year of recognition under the new DOE contract awarded in 2009 for the commercialization of our fuel cell product and an increase in our cost reimbursement rates, while in 2008, the DOE contract was for research and development costs.

(Dollars in thousands) Contract	Expiration	Revenue Year Ended December 31, 2008	Revenue Year Ended December 31, 2009	Revenue Contract to Date
$3.0 million DOE(2)	03/31/09	$ 1,154	$ -0-	$ 3,000
$2.4 million DOE(3)	03/31/10	-0-	2,043	2,043
Total		$ 1,154	$ 2,043	$ 5,043

(1) Dates represent expiration of contract, not date of final billing.
(2) The DOE contract was a cost share contract. DOE funding for this contract was suspended during January 2006 and reinstated during May 2007. During 2007, we received notifications from the DOE of funding releases totaling $1.0 million and also received an extension of the termination date for the contract from July 31, 2007 to September 30, 2008. During 2008, we received notification from the DOE of a funding release of $325,000, and an extension of the termination date for the contract from September 30, 2008 to March 31, 2009.
(3) The DOE contract is a cost share contract.

Unfunded Research and Product Development Expenses: Unfunded research and product development decreased by $3.8 million, or 91%, to $384 thousand in 2009 due to staff reductions and substantial cut backs in external development spending.

Selling, General and Administrative Expenses: Selling, general and administrative expenses decreased by $2.4 million, or 96%, to $105 thousand for the year ended December 31, 2009 from $2.5 million for the year ended December 31, 2008. This decrease was primarily the result of an increase in the G&A rate used in government contracts, resulting in a $2 million increase in the allocation of G&A to research and development and a $150 thousand overall decrease in payroll costs due to staff reductions in 2008, with a full year impact in 2009.

Results of Consolidated Operations

Operating Loss: Operating loss for the year ended December 31, 2009 compared with the operating loss for the year ended December 31, 2008 decreased by $9.35 million to $3.1 million, a 76% decrease, as a result of the factors noted above.

Gain on Sale of Securities Available for Sale: During 2008, we sold 1,137,166 shares of Plug Power common stock at a weighted average price of $2.67 per share, with gross proceeds to us of $3.3 million. As of December 31, 2008, we no longer owned any Plug Power common stock or other securities available for sale.

Gain (loss) on Derivatives: We recorded a loss on derivative accounting of $29 thousand for the year ended December 31, 2009 and a gain of $655 thousand on derivative accounting for the year ended December 31, 2008. Both the 2009 loss and 2008 gain are the result of derivative treatment of the freestanding warrants issued to investors in conjunction with our December 2006 capital raise.

Income Tax (Expense) Benefit: Income taxes went from an expense of $2 million in 2008 to a benefit of $208 thousand in 2009. The benefit in 2009 was a result of the reversal of the uncertain tax position accrual recorded in 2008, and settled in 2009. The remainder of the difference pertains to the differences described below for the tax rates for each year.

Our income tax rate for the year ended December 31, 2009 was 6%, while the income tax rate for the year ended December 31, 2008 was (19%). These tax rates were primarily the result of losses generated by operations, changes in the valuation allowance, state true-ups upon tax return filings, permanent deductible differences for the derivative valuation, and disproportionate effects of reclassification of gains on Plug Power security sales included in operating loss.

The valuation allowance against our deferred tax assets at December 31, 2009 was $26.4 million and at December 31, 2008 was $27.9 million. We 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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Liquidity and Capital Resources

We have incurred significant losses as we continue to fund the development and commercialization costs of our New Energy Segment. We expect that losses will fluctuate from year to year and that such fluctuations may be substantial as a result of, among other factors, our operating results, the availability of equity financing, and the ability to attract government funding resources to offset research and development costs. As of December 31, 2010, we had an accumulated deficit of $122 million. During the year ended December 31, 2010, our results of operations resulted in a net loss after the non-controlling interest allocation of $1.8 million and cash used in operating activities totaling $1.5 million. This cash use in 2010 was funded primarily by cash and cash equivalents on hand as of December 31, 2009 of $785 thousand, equity financing to MTI Micro of $1.9 million, and results of operations of MTI Instruments.

We expect to continue to incur losses during this global economic slowdown, and we expect to continue funding our operations from current cash and cash equivalents, proceeds, if any, from debt or equity financings and government funding. We expect to spend approximately $1.0 million in research and development on MTI Instruments' products during 2011.

We have the Amendment for MTI Micro to receive $450 thousand in equity financing over the first six months of 2011. We have no other commitments for funding future needs of the organization at this time and additional financing during 2011 may not be available to us on acceptable terms, if at all. We may also seek to supplement our resources through additional debt or equity financings, sales of assets (including MTI Micro or MTI Instruments), and additional government funding.

Working capital was $1.5 million at December 31, 2010, a $371 thousand increase from $1.2 million at December 31, 2009. This increase was primarily the result of operations for MTI Instruments, a continued hold on expenses and capital raised through the issuance of MTI Micro stock.

At December 31, 2010, the Company's order backlog was $2.13 million, compared to $419 thousand at December 31, 2009.

Our inventory turnover ratios and average accounts receivable days sales outstanding for the years ended December 31, 2009 and 2010 and their changes are as follows:

	Years Ended December 31,		
	2009	2010	Change
Inventory turnover	2.0	3.7	1.7
Average accounts receivable days sales outstanding	38	42	4

The increase in inventory turnover is driven by a 36% decrease in the average inventory balances on 15% higher sales volume in 2010.

The increase in average accounts receivable days sales outstanding in 2010 compared with 2009 was primarily attributable to an increase in business with large, multi-national companies who pay in 60 to 120 days.

Cash flow used by operating activities was $1.5 million during 2010 compared with $2.2 million during 2009. This cash use decrease of $700 thousand reflects an overall net decrease in cash expenditures to fund operations due to management's continued efforts to reduce the overall costs of operations.

Capital expenditures were $47 thousand during 2010, an increase of $40 thousand from the prior year of $7 thousand. All capital purchases were made in MTI Instruments, and represent new demo equipment associated with the new tensile stage product line and a thermal imaging camera for use in the engineering lab. We had no outstanding commitments for capital expenditures as of December 31, 2010.

During 2008, we sold our remaining 1,137,166 shares of Plug Power common stock with proceeds totaling $3.0 million and gains totaling $1.0 million. These proceeds reflect our previously announced strategy to raise additional capital through the sale of Plug Power stock to fund our micro fuel cell operations. The net gains of these transactions were offset by our operating losses for purposes of computing taxable income. We estimate that as of December 31, 2010, our remaining net operating loss carryforwards were approximately $67.2 million.

Off-Balance Sheet Arrangements

There were no off balance sheet arrangements.

Contractual Payment Obligations

We have entered into various agreements that result in contractual payment obligations in future years. These contracts include financing arrangements for current manufacturing, laboratory and office facility lease agreements. The following table summarizes cash payments that we are committed to make under the existing terms of contracts to which we are a party as of December 31, 2010. This table does not include contingencies.

Contractual Payment Obligations (in thousands)	Less Than 1 Year	1-3 Years	3-5 Years	More Than 5 Years	Total
Operating Leases / Total Contractual Payment Obligations	$ 323	$ 809	$ —	$ —	$ 1,132

Market Risk

Market risk is the risk that changes in market conditions will adversely affect earnings or cashflow. We categorize our market risks as interest rate risk and credit risk. Immediately below are detailed descriptions of the market risks and explanations as to how each of these risks are managed.

Interest Rate Risk. Interest rate risk is the risk that changes in interest rates could adversely affect earnings or cashflows. The Company's cash equivalents are sensitive to changes in interest rates. Interest rate changes would result in a change in interest income due to the difference between the current interest rates on cash. Interest rate risk sensitivity analysis is used to measure interest rate risk by computing estimated changes in cashflow as a result of assumed changes in market interest rates. A 10% decrease in 2010 interest rates would be immaterial to the Company's consolidated financial statements.

Credit Risk. Credit risk is the risk of loss we would incur if counterparties fail to perform their contractual obligations. 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.

Our trade accounts receivable and unbilled contract costs and fees are primarily from sales to commercial customers, the U.S. government and state agencies. We do not require collateral and have 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.

Our deposits are primarily in cash and investments in marketable securities, primarily deposited in commercial banks and investment companies. Credit exposure to any one entity is limited by Company policy.

Critical Accounting Policies and Significant Judgments and Estimates

The following discussion and analysis of our financial condition and results of operations is based upon our 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 audited financial statements includes a summary of our most significant accounting policies. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, and expenses, and related disclosure of assets and liabilities. On an ongoing basis, we evaluate our estimates and judgments, including those related to revenue recognition, inventories, securities available for sale, income taxes, share-based compensation and derivatives. We base our 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. Periodically, we review our critical accounting estimates with the Audit Committee of our Board of Directors.

The significant accounting policies that we believe are most critical to aid in fully understanding and evaluating our financial statements include the following:

Revenue Recognition. We recognize 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 direct methanol fuel cell technology. Some of these contracts require us to contribute to the development effort. The customers for these contracts are 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, we do 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 we are not successful in securing additional funding, we record the estimated additional expense before it is incurred.

We apply accounting guidance on Revenue Recognition in the evaluation of commercially funded fuel cell research and prototype agreements 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. 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 revenue recognized are reclassified from unfunded research and product development to funded research and product development.

We recognize product revenue 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 we have 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 us, 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 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 assure 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.

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 appropriate accounting provisions regarding Share-Based Payments. Effective January 1, 2006, we use the fair value method of accounting with the modified prospective application, which provides for certain changes to the method for valuing share-based compensation. The valuation provisions 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 these accounting methods for the year ended December 31, 2010 was $1.5 million. At December 31, 2010, total unrecognized estimated compensation expense related to non-vested awards granted prior to that date was $292 thousand, which is expected to be recognized over a weighted average period of 1.31 years.

We began estimating the value of share-based awards on the date of grant using a Black-Scholes option-pricing model effective January 1, 2006. Prior to this adoption, 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. 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 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 for the accounting methodology during future periods, the compensation expense that we record 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. 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 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 currently is 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 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.

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 twelve months ended December 31, 2010 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 proper accounting guidance. 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.

Income Taxes. As part of the process of preparing our consolidated financial statements, we are required to estimate our income taxes in each of the jurisdictions in which we operate. 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. We must assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent that we believe that recovery is not likely, we 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 as a result of uncertainties in 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. We have recorded a full valuation allowance against our net deferred tax assets of $27.8 million as of December 31, 2010.

During June 2006 accounting standards on Accounting for Uncertainty in Income Taxes were released, which became effective for us beginning in fiscal 2007. This methodology addresses the determination of how tax benefits claimed or expected to be claimed on a tax return should be recorded in the financial statements. Under this methodology, we must recognize the tax benefit from an uncertain tax position only if it is more likely than not that the tax position will be sustained on examination by the taxing authorities, based on the technical merits of the position. The tax benefits recognized in the financial statements from such a position are measured based on the largest benefit that has a greater than 50% likelihood of being realized upon ultimate resolution. The impact of our reassessment of our tax positions for these standards did not have a material impact on our results of operations, financial condition, or liquidity.

Derivative Instruments. We account for derivative instruments and embedded derivative instruments in accordance with the accounting standard for 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 Pricing model. We also follow accounting standards for the 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 these provisions 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 required.

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

New Accounting Pronouncements

Effect of Recent Accounting Pronouncements:

In June 2010, the FASB issued Accounting Standards Update 2010-06 requiring a gross presentation of activities within the Level 3 rollforward, and adds a new requirement to disclose transfers in and out of Level 1 and 2 measurements. Consistent with the current guidance in Accounting Standard Codification 820-10, ASU 2010-06 allows disclosure of derivative assets and liabilities in the Level 3 rollforward to be presented on either a gross or net balance. The effective date of the ASU was the first interim or annual reporting period beginning after December 15, 2009, except for the gross presentation of the Level 3 rollforward information, which is required for annual reporting periods beginning after December 15, 2010 and for interim reporting periods within those years. The Company's adoption of this standard did not have a material effect on its financial statements.

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to market risk from changes in interest rates and credit risk, which could affect its future results of operations and financial condition. We manage our exposure to these risks through regular operating and financing activities. (See “Market Risk”, included in Item 7, Management’s Discussion and Analysis of Financial Condition and Results of Operations above.)

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 and are incorporated herein by reference.

Selected Quarterly Financial Data

(Unaudited and in thousands except per share amounts)	Q1	Q2	Q3	Q4
2009				
Product revenue	$ 1,550	$ 1,309	$ 1,439	$ 1,965
Funded research and development revenue	517	542	526	458
Gross profit – product revenue	885	681	855	1,177
Gross loss – funded research and development	(518)	(545)	(528)	(461)
Net loss	$ (742)	$ (946)	$ (882)	$ (529)
Loss per Share (Basic and Diluted):				
Net loss	$ (0.15)	$ (0.20)	$ (0.19)	$ (0.11)
2010				
Product revenue	$ 1,267	$ 1,627	$ 1,646	$ 2,639
Funded research and development revenue	357	418	334	125
Gross profit – product revenue	723	901	984	1,641
Gross loss – funded research and development	(413)	(409)	(203)	(279)
Net gain (loss)	$ (1,234)	$ (437)	$ (366)	$ 279
Earnings (Loss) per Share (Basic and Diluted):				
Earnings (loss) per share	$ (.26)	$ (.09)	$ (.08)	$ .06

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: Our management, with the participation of our chief executive officer and acting chief financial officer, evaluated the effectiveness of MTI's disclosure controls and procedures as of December 31, 2010. 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 it 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. We recognize that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and we necessarily apply our judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the valuation of our disclosure controls and procedures as of December 31, 2010, our chief executive officer and acting chief financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

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

Management of our 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). Our 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 our management, including the principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our 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, Management has concluded that our internal control over financial reporting was effective as of December 31, 2010.

This annual report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. Our report was not subject to attestation by our independent registered public accounting firm pursuant to temporary rules of the SEC that permit us to provide only Management's Report in this annual report.

/s/ Peng K. Lim	/s/ Frederick W. Jones
Chief Executive Officer	Acting Chief Financial Officer
(Principal Executive Officer)	(Principal Financial Officer)

(c) Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(1) under the Exchange Act, during our fiscal quarter ended December 31, 2010 that have materially affected, or are reasonable likely to materially affect our internal control over financial reporting.

Item 9B: Other Information

None.

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 our definitive Proxy Statement for our 2011 Annual Meeting of Stockholders to be filed with the SEC on or before April 30, 2011.

(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 our definitive Proxy Statement for our 2011 Annual Meeting of Stockholders to be filed with the SEC.

Incorporated herein by reference is the information appearing under the caption “Board of Director Meetings and Committees – Audit Committee” in our definitive Proxy Statement for our 2011 Annual Meeting of Stockholders to be filed with the SEC.

Code of Ethics: We have 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. A copy may be obtained at no charge by written request to the attention of our Secretary at 431 New Karner Road, Albany, New York 12205. A copy of the Code of Ethics is also available on our website at http://www.mechtech.com.

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 our 2011 Annual Meeting of Stockholders to be filed with the SEC.

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

Incorporated herein by reference is the information appearing under the caption “Principal Stockholders” in our definitive Proxy Statement for our 2011 Annual Meeting of Stockholders to be filed with the SEC.

Equity Compensation Plans

As of December 31, 2010, we have three equity compensation plans, each of which was originally approved by our stockholders; the Mechanical Technology, Incorporated 1996 Stock Incentive Plan (the “1996 Plan”), 1999 Employee Stock Incentive Plan (the “1999 Plan”) and 2006 Equity Incentive Plan (the “2006 Plan”). The 2006 plan was amended and approved by our Board of Directors in 2009. We refer collectively to these as 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:

Plan Category	Number of Securities To Be Issued Upon Exercise of Outstanding Options, Warrants, Rights(1) (a)	Weighted Average Exercise Price of Outstanding Options, Warrants, Rights (b)	Number of Securities Remaining Available for Future Issuance Under Equity Compensation Plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	399,827	$ 21.91	-0-
Equity compensation plans			

not approved by security holders	479,159	2.65	114,591

(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.

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 our definitive Proxy Statement for the 2011 Annual Meeting of Stockholders to be filed with the SEC.

Item 14: Principal Accountant Fees and Services

Incorporated herein by reference is the information appearing under the caption “Independent Accountants” in our definitive Proxy Statement for the 2011 Annual Meeting of Stockholders to be filed with the Securities and Exchange Commission.

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, 2008, 2009, and 2010 is included pursuant to Item 15(d):

Report of Independent Registered Public Accounting Firm on Financial Statements Schedule;
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
3.1	Certificate of Incorporation of the registrant, as amended and restated. (16)
3.2	Certificate of Amendment of the Certificate of Incorporation of the registrant. (17)
3.3	By-Laws of the registrant, as amended and restated. (15)
4.1	Form of Common Stock Purchase Warrant to be issued by the Company. (13)
10.14	Mechanical Technology, Incorporated 1996 Stock Incentive Plan. (1)
10.30	Mechanical Technology, Incorporated 1999 Employee Stock Incentive Plan. (2)
10.38	Lease dated August 10, 1999 between Carl E. Touhey and Mechanical Technology, Inc. (3)
10.43	Lease dated April 2, 2001 between Kingfisher LLC and Mechanical Technology, Inc. (4)
10.44	First Amendment to lease dated March 13, 2003 between Kingfisher LLC and Mechanical Technology, Inc. (5)
10.132	Second Amendment to lease dated December 12, 2005 between Kingfisher, LLC and Mechanical Technology, Incorporated. (7)
10.139	Employment Agreement dated May 4, 2006 between Peng K. Lim and Mechanical Technology, Incorporated (10)
10.140	Form of Restricted Stock Agreement for the 1996 and 1999 Mechanical Technology, Inc. Stock Incentive Plans. (11)
10.142	Third Amendment to lease dated August 7, 2006 between Kingfisher, LLC and Mechanical Technology, Incorporated. (12)
10.145	Mechanical Technology, Incorporated 2006 Equity Incentive Plan. (9)

10.148	Fourth Amendment to lease dated August 6, 2007 between Kingfisher LLC and Mechanical Technology, Incorporated. (14)
10.151	Employment Agreement dated April 3, 2006 between James K. Prueitt and MTI MicroFuel Cells Inc (20) (amended and restated on December 31, 2008) (19).
10.153	Form of Convertible Note and Warrant Purchase Agreement dated September 18, 2008 (18)
10.154	Amended and Restated Employment Agreement dated December 30, 2008 between James K. Prueitt and MTI MicroFuel Cells Inc. (19)
10.155	Amended and Restated Employment Agreement dated December 31, 2008 between Peng K. Lim and Mechanical Technology, Inc. (19)
10.158	Amendment No. 1 to Convertible Note and Warrant Purchase Agreement dated February 20, 2009 (19)

10.159	Letter Agreement dated February 24, 2009 between Peng K. Lim and Mechanical Technology, Inc. (19)
10.160	Letter Agreement dated February 24, 2009 between James K. Prueitt and MTI MicroFuel Cells Inc. (19)
10.161	Amendment No. 2 to Convertible Note and Warrant Purchase Agreement dated April 15, 2009 (20)
10.162	Secured Convertible Promissory Note Negotiated Conversion Agreement, dated December 9, 2009, by and among the Company, MTI Micro and the Bridge Investors (21)
10.163	Form of Common Stock Warrant (21)
10.164	Mechanical Technology, Incorporated Amended and Restated 2006 Equity Incentive Plan (22)
10.165	Fifth Amendment to lease dated August 6, 2007 between Kingfisher LLC and Mechanical Technology, Incorporated (23)
10.166	Amendment No 1 to Lease Agreement Between Mechanical Technology Inc. and Carl E. Touhey (23)
10.167	MTI MicroFuel Cells Inc. 2009 Stock Plan (23)
10.168	Common Stock and Warrant Purchase Agreement, dated January 11, 2010, by and between MTI MicroFuel Cells Inc. and Counter Point Ventures Fund II, L.P. (24)
10.169	Form of Common Stock Warrant (24)
10.170	Seventh Amendment to Lease Agreement between Kingfisher LLC and Mechanical Technology, Incorporated (25)
10.171	Service Agreement between CEO Suite Shanghai and MTI Micro Fuel Cells Inc.
10.181	Amendment No. 1, dated February 9, 2011, to the Common Stock and Warrant Purchase Agreement, dated January 11, 2010, by and between MTI MicroFuel Cells Inc. and Counter Point Ventures Fund II, L.P. (26)
10.182	Form of Common Stock Warrant (26)
14.1	Code of Ethics. (8)
21	Subsidiaries of the Registrant. (6)
23.1	Consent of Independent Registered Public Accounting Firm – PricewaterhouseCoopers LLP.
31.1	Certification of Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	Certification of Acting Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	Certification of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
32.2	Certification of Acting Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

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:

(1) Filed as Appendix A to the registrant's Definitive Proxy Statement Schedule 14A filed November 19, 1996.

(2) Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated February 13, 1999.

(3) Filed as an Exhibit to the registrant's Form 10-K Report for the fiscal year ended September 30, 1999.

(4) Filed as an Exhibit to the registrant's Form 10-K Report for the fiscal year ended September 30, 2001.

(5) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2002.

(6) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2003.

(7) Filed as an Exhibit to the registrant's Form 8-K Report dated December 12, 2005.

(8) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2005.

(9) Filed as an Exhibit to the registrant's Proxy Statement, Schedule 14A, dated April 3, 2006.

(10) Filed as an Exhibit to the registrant's Form 8-K Report dated May 4, 2006.

(11) Filed as an Exhibit to the registrant's Form 8-K Report dated May 18, 2006.

(12) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended June 30, 2006.

(13) Filed as an Exhibit to the registrant's Form 8-K Report dated December 15, 2006.

(14) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended June 30, 2007.

(15) Filed as an Exhibit to the registrant's Form 8-K Report dated December 14, 2007.

(16) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2007.

(17) Filed as an Exhibit to the registrant's Form 8-K Report dated May 15, 2008.

(18) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended September 30, 2008.

(19) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2008.

(20) Filed as an Exhibit to the registrant's Form 8-K Report dated April 15, 2009.

(21) Filed as an Exhibit to the registrant's Form 8-K Report dated December 15, 2009.

(22) Filed as an Exhibit to the registrant's Form S-8 Registration Statement dated September 18, 2009.

(23) Filed as an Exhibit to the registrant's Form 10-K Report for the year ended December 31, 2009.

(24) Filed as an Exhibit to the registrant's Form 8-K Report dated January 14, 2010.

(25) Filed as an Exhibit to the registrant's Form 10-Q Report for the quarter ended June 30, 2010.

(26) Filed as an Exhibit to the registrant's Form 8-K Report dated February 10, 2011.

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 25, 2011	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.

Signature	Title	Date
/s/ Peng K. Lim Peng K. Lim	Chairman, Chief Executive Officer, (Principal Executive Officer and Director)	March 25, 2011
/s/ Frederick W. Jones Frederick W. Jones	Acting Chief Financial Officer and Secretary (Principal Financial and Accounting Officer)	March 25, 2011
/s/ Thomas J. Marusak Thomas J. Marusak	Director	March 25, 2011
/s/ William P. Phelan William P. Phelan	Director	March 25, 2011
/s/ E. Dennis O'Connor E. Dennis O'Connor	Director	March 25, 2011
/s/ Walter L. Robb Dr. Walter L. Robb	Director	March 25, 2011

REPORT OF INDEPENDENT REGISTERED PUBLIC
ACCOUNTING FIRM ON FINANCIAL STATEMENT SCHEDULE

To the Board of Directors and Stockholders
of Mechanical Technology, Incorporated:

Our audits of the consolidated financial statements referred to in our report dated March 25, 2011 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 25, 2011

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

Description	Balance at Beginning of Period	Additions Charged to Costs and Expenses	Additions Charged to Other Accounts	Deductions	Balance at End of Period
Allowance for doubtful accounts (accounts receivable) for the years ended:					
December 31, 2008	$ —	$ —	$ —	$ —	$ —
December 31, 2009	$ —	$ 92	$ —	$ —	$ 92
December 31, 2010	$ 92	$ —	$ —	$ 92	$ —
Valuation allowance for deferred tax assets for the years ended:					
December 31, 2008	$ 22,333	$ 5,547	$ —	$ —	$ 27,880
December 31, 2009	$ 27,880	$ (1,495)	$ —	$ —	$ 26,385
December 31, 2010	$ 26,385	$ 1,416	$ —	$ —	$ 27,801

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of
Mechanical Technology, Incorporated:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, shareholders' equity and comprehensive loss, and of cash flows present fairly, in all material respects, the financial position of Mechanical Technology, Incorporated and its subsidiaries at December 31, 2010 and 2009, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2010 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 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 2 to the consolidated financial statements, the Company changed the manner in which it accounts for non-controlling interest in 2009.

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 1 to the financial statements, the Company has suffered recurring losses from operations and has an accumulated deficit that raises substantial doubt about its ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ PricewaterhouseCoopers
Albany, New York
March 25, 2011

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
December 31, 2009 and 2010

(In thousands)	December 31, 2009	2010
Assets		
Current Assets:		
Cash and cash equivalents	$ 785	$ 1,118
Accounts receivable, less allowance for doubtful accounts, ($92 in 2009, $-0- in 2010)	1,142	1,086
Inventories	789	844
Prepaid expenses and other current assets	166	128
Total Current Assets	2,882	3,176
Property, plant and equipment, net	859	425
Total Assets	$ 3,741	$ 3,601
Liabilities and Stockholders' Equity		
Current Liabilities:		
Accounts payable	$ 323	$ 255
Accrued liabilities	1,290	1,273
Deferred revenue	16	21
Derivative liability	70	73
Income taxes payable	20	20
Total Current Liabilities	1,719	1,642
Stockholders' Equity:		
Common stock, par value $0.01 per share, authorized 75,000,000;		
5,776,750 issued in both 2009 and 2010	58	58
Paid-in-capital	133,286	134,733
Accumulated deficit	(120,725)	(122,483)
Common stock in treasury, at cost, 1,005,092 shares in both 2009 and 2010	(13,754)	(13,754)
Total MTI stockholders' deficit	(1,135)	(1,446)
Non-controlling interest	3,157	3,405
Total Equity	2,022	1,959
Total Liabilities and Stockholders' Equity	$ 3,741	$ 3,601

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

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2008, 2009, and 2010

(In thousands, except per share amounts)	Years Ended December 31,		
	2008	2009	2010
Product revenue	$ 6,224	$ 6,263	$ 7,179
Funded research and development revenue	1,154	2,043	1,234
Total revenue	7,378	8,306	8,413
Operating costs and expenses:			
Cost of product revenue	3,181	2,665	2,930
Research and product development expenses:			
Funded research and product development	2,409	4,095	2,538
Unfunded research and product development	5,855	1,349	1,317
Total research and product development expenses	8,264	5,444	3,855
Selling, general and administrative expenses	8,369	3,284	5,020
Operating loss	(12,436)	(3,087)	(3,392)
Interest expense	(44)	(222)	—
Loss on extinguishment of debt	—	(232)	—
Gain (loss) on derivatives	655	(29)	(3)
Gain on sale of securities available for sale	1,018	—	—
Other (expense) income, net	47	(2)	3
Loss before income taxes and non-controlling interest	(10,760)	(3,572)	(3,392)
Income tax benefit (expense)	(2,004)	208	(4)
Net loss, net of tax	(12,764)	(3,364)	(3,396)
Plus: Net loss attributed to non-controlling interest	260	265	1,638
Net loss attributed to MTI	$ (12,504)	$ (3,099)	$ (1,758)
Net loss per share attributable to MTI (Basic and Diluted)	$ (2.62)	$ (0.65)	$ (0.37)
Weighted average shares outstanding (Basic and Diluted)	4,772,359	4,771,658	4,771,658

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

MECHANICAL TECHNOLOGY, INCORPORATED AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
AND COMPREHENSIVE LOSS
For the Years Ended December 31, 2008, 2009, and 2010

(In thousands)	Years Ended December 31,		
	2008	2009	2010
Common Stock			
Balance, beginning	$ 58	$ 58	$ 58
Balance, ending	$ 58	$ 58	$ 58
Paid-In Capital			
Balance, beginning	$ 132,065	$ 132,781	$ 133,286
Stock-based compensation	844	505	1,447
MTI MicroFuel Cell Investment	(128)	—	—
Balance, ending	$ 132,781	$ 133,286	$ 134,733
Accumulated Deficit			
Balance, beginning	$ (105,066)	$ (117,570)	$ (120,725)
Net loss	(12,504)	(3,099)	(1,758)
MTI Micro Warrants issued	—	(56)	—
Balance, ending	$ (117,570)	$ (120,725)	$ (122,483)
Accumulated Other Comprehensive Income (Loss)			
Balance, beginning	$ 500	$ —	$ —
Less reclassification adjustment for gains included in net income (net of taxes of $1,971 in 2008 and $-0- in 2009 and 2010)	(500)	—	—
Balance, ending	$ —	$ —	$ —
Treasury Stock			
Balance, beginning	$ (13,754)	$ (13,754)	$ (13,754)
Balance, ending	$ (13,754)	$ (13,754)	$ (13,754)
Non-controlling Interest (NCI)			
Balance, beginning	$ 143	$ 11	$ 3,157
Net loss attributed to NCI	(260)	(265)	(1,638)
Equity contribution	128	3,411	1,886
Balance, ending	$ 11	$ 3,157	$ 3,405
Total Stockholders' Equity			
Balance, ending	$ 1,526	$ 2,022	$ 1,959
Total Comprehensive Loss			
Net Loss	$ (12,504)	$ (3,099)	$ (1,758)
Other comprehensive loss:			
Reclassification adjustment for gains included in net income, net of taxes	(500)	—	—
Total comprehensive loss	$ (13,004)	$ (3,099)	$ (1,758)

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, 2008, 2009, and 2010

(In thousands)	Years Ended December 31,		
	2008	2009	2010
Operating Activities			
Net loss	$ (12,764)	$ (3,364)	$ (3,396)
Adjustments to reconcile net loss to net cash used by operating activities:			
(Gain) loss on derivatives	(655)	29	3
Gain on sale of securities available for sale	(1,018)	—	—
Depreciation and amortization	819	660	481
(Gain) loss on disposal of fixed assets	(7)	16	—
Deferred income taxes	1,971	—	—
Stock based compensation	844	505	1,447
Loss on extinguishment of debt	—	232	—
Provision for doubtful accounts	—	92	—
Provision for inventory obsolescence	446	124	(69)
Changes in operating assets and liabilities:			
Accounts receivable	829	(694)	56
Inventories	(582)	781	15
Prepaid expenses and other current assets	57	106	38
Accounts payable	235	(186)	(68)
Income taxes payable	17	(216)	—
Deferred revenue	(109)	8	5
Accrued liabilities	(429)	(263)	(18)
Net cash used in operating activities	(10,346)	(2,170)	(1,506)
Investing Activities			
Purchases of property, plant and equipment	(181)	(7)	(47)
Proceeds from sale of securities available for sale	3,039	—	—
Net cash provided by (used in) investing activities	2,858	(7)	(47)
Financing Activities			
Proceeds from short-term debt	1,500	1,300	—
Proceeds from the sale of subsidiary equity and warrants issued	—	—	1,886
Net cash provided by financing activities	1,500	1,300	1,886
Increase (decrease) in cash and cash equivalents	(5,988)	(877)	333
Cash and cash equivalents - beginning of year	7,650	1,662	785
Cash and cash equivalents - end of year	$ 1,662	$ 785	$ 1,118

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

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

MTI Instruments was incorporated in New York on March 8, 2000. MTI Instruments is a worldwide supplier of precision non-contact physical measurement solutions, condition based monitoring systems, portable balance equipment and wafer inspection tools. MTI Instrument's products use a comprehensive array of technologies to solve complex, real world applications in numerous industries including manufacturing, semiconductor, solar, commercial and military aviation, automotive and data storage. Our products consist of electronic gauging instruments for position, displacement and vibration application within the design, manufacturing/production, test and research market; wafer characterization of semi-insulating and semi-conducting wafers within both the semiconductor and solar industries; tensile stage systems for materials testing at academic and industrial settings; and engine vibration analysis systems for both military and commercial aircraft.

MTI Micro was incorporated in Delaware on March 26, 2001, and is developing Mobion®, a handheld energy-generating device to replace current lithium-ion and similar rechargeable battery systems in many handheld electronic devices for the military and consumer markets. Mobion® handheld generators are based on direct methanol fuel cell (DFMC) 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® as a solution for advancing current and future electronic device power needs of the multi-billion dollar portable electronics market. As of December 31, 2010, the Company owned approximately 50.6% of MTI Micro's outstanding common stock.

Reverse Stock Split

Unless otherwise noted, all capital values, share, and per share amounts in the consolidated financial statements have been retroactively restated for the effects of the Company's reverse split of its issued and outstanding common stock at a rate of 1-for-8 which became effective on May 16, 2008. This action was approved by stockholders on May 15, 2008.

Liquidity and Going Concern

The Company has incurred significant losses as it continued to fund the direct methanol fuel cell product development and commercialization programs of its majority owned subsidiary, MTI Micro, and had a consolidated accumulated deficit of $122 million and working capital of $1.5 million at December 31, 2010. Because of these losses, limited current cash and cash equivalents, negative cash flows and accumulated deficit, there is substantial doubt about the Company's ability to continue as a going concern. These financial statements do not include any adjustments that might result from the outcome of this uncertainty.

At present, the Company does not expect to continue to fund MTI Micro on a long-term basis. The Company has projected positive cash flows to meet future cash requirements for operations and capital expenditures exclusive of MTI Micro, and has cash and cash equivalents of $1.1 million at December 31, 2010, $920 thousand without MTI Micro. Management believes that MTI Instruments will continue to generate positive cash flows and be able to fund its current operations. However, no assurance can be provided regarding MTI and MTI Instrument's ability to continue as a going concern given the level of uncertainty involved with the parent company's operations.

Since the Company will no longer fund MTI Micro, the subsidiary has sought other sources of funding. In September 2008, MTI Micro closed on $2.2 million of funding in the form of convertible secured notes (the "Bridge Notes") to investors (the "Bridge Investors"), including MTI, Dr. Walter L. Robb, a member of the Company's and MTI Micro's Boards of Directors, and Counter Point Ventures Fund II, LP (Counter Point). Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb. In February 2009, MTI Micro issued additional bridge notes to Counter Point in the amount of $500,000. On April 15, 2009, MTI Micro, Counter Point and an additional investor agreed to additional bridge notes in the amount $800,000 to be drawn down in increments not to exceed $165,000 monthly. The final principal draw down occurred on December 4, 2009. The bridge notes carried an annual interest rate of 10%. On December 9, 2009, these bridge notes with the aggregate principal and accrued interest amount of $3,910,510 outstanding were converted into an aggregate of 55,864,425 shares of Common Stock of MTI Micro using a conversion price per share of $0.070 (the "Negotiated Conversion"). See Note 17 for further discussion of this transaction.

On January 11, 2010, MTI Micro entered into a Common Stock and Warrant Purchase Agreement (the "Purchase Agreement") with Counter Point. The total amount available for disbursement to MTI Micro was $2 million. Through December 31, 2010, MTI Micro had drawn down $1.89 million, and on January 5, 2011, the final $113 thousand was drawn against this agreement. As a result of this Purchase Agreement, Counter Point received 28,571,429 shares of MTI Micro stock and 5,714,286 warrants.

On February 9, 2011, Amendment No. 1 to Common Stock and Warrant Purchase Agreement (the "Amendment") was entered into between MTI Micro and Counter Point. The Amendment allows MTI Micro to draw down an additional $450 thousand through June 30, 2011 in exchange for 6,428,574 shares of MTI Micro Common Stock and 1,285,715 warrants. The funds are available through monthly "Closings", with $90 thousand being drawn down for the month of February, and the amount available of $45 thousand for the month of March and $105 thousand for the months of April through June. See Note 17 for further discussion of this transaction.

On April 16, 2009, MTI Micro was awarded a cost share funding grant of $2.4 million from the United States Department of Energy (DOE) as part of the DOE's $41.9 million in American Recovery and Reinvestment Act funding for fuel cell technology. On April 30, 2010, MTI Micro was approved for an extension of this grant, with additional funds available of $594 thousand under this program. As of December 31, 2010, $6 thousand remained on this grant.

On July 28, 2010, MTI Micro was awarded a cost share funding grant of $296 thousand from the New York State Energy Research and Development Authority (NYSERDA). MTI Micro has billed $290 thousand for work performed to date, and received $238 thousand through December 31, 2010.

On October 26, 2010, MTI Micro was awarded a firm fixed contract from a United States Department of Defense agency for the development of proof of concept fuel cells for technical testing and subsequent demonstration in a capabilities based experiment. The total contract is expected to provide an additional $100 thousand in revenues for MTI Micro in 2011.

In order to continue full commercialization of its micro fuel cell solution, MTI Micro will need to do one or more of the following to raise additional resources, or reduce its cash requirements:

- obtain additional government or private funding of the Company's direct methanol fuel cell research, development, manufacturing readiness and commercialization;
- secure additional debt or equity financing; or
- further reduce its current expenditure run-rate.

There is no guarantee that resources will be available to MTI Micro on terms acceptable to it, or at all, or that such resources will be received in a timely manner, if at all, or that MTI Micro will be able to reduce its capital expenditure run-rate further without materially and adversely affecting its business. MTI Micro had cash and cash equivalents as of December 31, 2010 of $198 thousand. Additionally, in January of 2011, MTI Micro received the final drawdown from the Purchase Agreement of $113 thousand, $77 thousand from NYSERDA, and in February of 2011 received the first drawdown of the Amendment of $90 thousand. MTI Micro also has $35 thousand in both billable and outstanding invoices on the NYSERDA contract, $6 thousand on the DOE contract and $360 thousand remaining on the Amendment, available to them through monthly closings through June 30, 2011. In order to conserve cash and extend operations while we pursue any additional necessary financing, we reduced operating expenses in the first quarter of 2011. Without other resources, management currently believes it will need to make significant changes to its operations before the third quarter of 2011.

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. Non-controlling interest in subsidiaries consists of equity securities issued by a subsidiary of the Company. 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.

In December 2007, the FASB issued authoritative guidance which establishes reporting standards that require companies to more clearly identify in the financial statements and disclose the impact of non-controlling interests in a consolidated subsidiary on the consolidated financial statements. Non-controlling interests are now classified as equity in the financial statements. The consolidated income statement is presented by requiring net income to include the net income for both the parent and the non-controlling interests, with disclosure of both amounts on the

consolidated statement of income. The calculation of earnings per share continues to be based on income amounts attributable to the parent. Prior period amounts related to non-controlling interests have been reclassified to conform to the current period presentation. The Company adopted this guidance on January 1, 2009.

Use of Estimates

The preparation of the consolidated financial statements is 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.

Variable Interest Entities

The Company holds a variable interest in MTI Micro and is determined to be the primary beneficiary. As a result, the Company includes MTI Micro's results of operations in the Companies' consolidated financial statements as of December 31, 2010. MTI Micro is a development stage company and as discussed in Note 1 to the financial statements does not have the equity to fund operations to its next phase of development. The Company's analysis to determine the primary beneficiary of MTI Micro focused primarily on determining which variable interest holder had the power to direct the activities which the Company believes would have the most significant impact on the financial performance of MTI Micro. MTI Micro is governed by a board of directors and significant decisions are determined by a majority vote of this board. MTI does not have direct control of the MTI Micro board of directors. At this time, the Company’s board of directors and the MTI Micro board of directors consist of the same members. Of these board members of both entities, there are three independent directors, with no related party interests in MTI Micro. Under the Articles of Incorporation of MTI Micro, each share of MTI Micro stock is entitled to a vote, and further, the majority shareholders of MTI Micro's common stock have the ability to reconstitute the board. Considering MTI holds the majority of MTI Micro's common stock as of December 31, 2010, MTI has the ability to control the board, and therefore was determined to be the primary beneficiary of MTI Micro. The Company's approach to determining which entity holds the powers and rights was based on common stock held as of the balance sheet date.

As of March 25, 2011, upon additional equity financings from Counter Point (discussed in note 17), MTI and Counter Point own 49.6% and 42.9% of the outstanding common stock of MTI Micro, respectively. As a result, a majority share is not held by one party but is shared amongst the related party group: MTI, Counter Point and Dr. Walter Robb. Refer to Note 17 of the financial statements for further discussion of the related party relationship between MTI, Counter Point and Dr. Walter Robb. In situations in which a reporting entity concludes that neither it nor one of its related parties has power but, as a group, the reporting entity and its related parties have the power, then the party within the related party group that is most closely associated with the VIE is the primary beneficiary. MTI has been the principal funder of MTI Micro's operations since incorporation in 2001. The Company continues to oversee the day to day operations and exercise management decision making. MTI continues to have a vested interest in the commercialization of MTI Micro and to date has made the largest investment in the entity. MTI is exposed to losses and has the ability to benefit from MTI Micro. Considering the facts and circumstances, management believes MTI is most closely associated with the VIE and therefore, as of March 25, 2011, is the primary beneficiary and will continue to consolidate MTI Micro into its results of operations. The consolidation guidance for VIEs requires ongoing reassessments of whether a reporting entity is the primary beneficiary of a variable interest entity. Therefore, upon a change in the facts and circumstances (such as a change in governance or a change to the related party group), management will reassess whether they act as the primary beneficiary and should continue to include MTI Micro in the Company’s results of operations.

Fair Value of Financial Instruments

The Company’s financial instruments consist of cash and cash equivalents, 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, 2009 and 2010. 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

On January 1, 2009, the Company adopted a newly issued accounting standard regarding disclosure of derivative instruments. The Company recognizes all derivatives as either assets or liabilities in the statement of financial position and measures these instruments at fair value. The fair value of the derivative is recorded in the “Derivative liability” line on the financial statements, and is valued quarterly using the Black-Scholes Option Pricing Model. The Company also follows the accounting provisions for 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 these provisions, 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 required. Based on the terms and conditions of the warrant of the Company, the instrument does not qualify to be designated as an equity instrument and is therefore recorded as a derivative liability.

The asset/liability derivatives are valued on a quarterly basis using the Black-Scholes Option Pricing model. Significant assumptions used in the valuation include exercise dates, closing market prices for the Company's common stock, volatility of the Company's common stock, and proxy risk-free interest rates. 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 the Company's best estimate of the amount of probable credit losses in its existing accounts receivable. The Company determines the allowance based on historical write-off experience and current exposures identified. The Company reviews its allowance for doubtful accounts monthly. Past due balances over 90 days and over a specified amount are reviewed individually for collectability. All other balances are reviewed on a pooled basis by type of receivable. Account balances are charged off against the allowance when the Company believes it is probable the receivable will not be recovered. The Company does not have any off-balance-sheet credit exposure related to its 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.

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	3 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 under the asset and liability method of accounting for income taxes. Under this 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 the accounting standard, 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 accounting guidance for revenue recognition in the evaluation of its contracts to determine when to properly recognize revenue. The following outlines the various types of revenue and the determination of the recognition of income for each category:

Product Revenue

Product revenue is recognized when there is persuasive evidence of an arrangement, the collection of a fixed fee is probable or determinable, and 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 these 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 is satisfied.

MTI Instruments currently has distributor agreements in place 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 and risk of loss of 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 semiconductor metrology equipment, or rack-mounted vibration systems, involve on-site customer acceptance and/or installation. 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 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 proper accounting guidance 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.

Prototype Evaluation Agreements

The Company recognizes income derived from its micro fuel cell prototype evaluation agreements, where the Company receives a lump-sum amount from Original Equipment Manufacturers ("OEMs") which are testing the Company's Mobion® prototypes for an OEM-specific application, upon delivery of the evaluation prototypes. These prototypes are returned to the Company once the evaluation period expires. There are no warranties given to any OEM regarding these prototypes, and each evaluation agreement is considered a customer specific arrangement. The costs associated with executing these prototype evaluation arrangements are expensed in research and development expense as they are incurred. Income derived from these arrangements of $10 thousand in 2010 and $45 thousand in 2009 are recorded in the Consolidated Statements of Operations in the line titled "Other income (expense), net."

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.

Deferred Revenue

Deferred revenue consists of payments received from customers in advance of services performed, completed installation 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. Warranty liability was $36 thousand and $21 thousand at December 31, 2010 and 2009, respectively.

Accounting for Impairment or Disposal of Long-Lived Assets

The Company accounts for impairment or disposal of long-lived assets in accordance with accounting standards that address the financial accounting and reporting for the impairment or disposal of long-lived assets, specify 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, 2010, the Company does not believe that any of its long-lived assets have suffered any type of impairment that would require an adjustment to that 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.

Net Loss per Common Share

The Company reports net loss per basic and diluted common share in accordance with the accounting standard, which establishes standards for computing and presenting loss per share. Basic loss per common share is computed by dividing net loss by the weighted average number of common shares outstanding during the reporting period. Diluted loss per share reflects the potential dilution, if any, computed by dividing 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.

Share-Based Payments

The Company accounts for stock based awards exchanged for employee service in accordance with the stock-based payment accounting guidance. The Company has three share-based employee compensation plans and MTI Micro has two share-based employee compensation plans, all of which are described more fully in Note 13, Stock Based Compensation.

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 functions.

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). Since the adoption of the revised accounting standard on share-based payments, no tax benefits have been recognized related to share-based compensation since the Company has incurred net operating losses and has established a full valuation allowance to offset all potential tax benefits associated with these deferred tax assets.

Concentration of Credit Risk

Financial instruments that subject the Company to concentrations of credit risk principally consist of cash equivalents, 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, the 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 in commercial banks. 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

Comprehensive loss includes net loss, as well as changes in stockholders' equity, other than those resulting from investments by stockholders.

Effect of Recent Accounting Pronouncements

In June 2010, the FASB issued Accounting Standards Update 2010-06 requiring a gross presentation of activities within the Level 3 rollforward, and adds a new requirement to disclose transfers in and out of Level 1 and 2 measurements. Consistent with the current guidance in Accounting Standard Codification 820-10, ASU 2010-06 allows disclosure of derivative assets and liabilities in the Level 3 rollforward to be presented on either a gross or net balance. The effective date of the ASU was the first interim or annual reporting period beginning after December 15, 2009, except for the gross presentation of the Level 3 rollforward information, which is required for annual reporting periods beginning after December 15, 2010 and for interim reporting periods within those years. The Company's adoption of this standard did not have a material effect on its financial statements.

3. Accounts Receivable and Allowance for Doubtful Accounts

Receivables consist of the following at December 31:

	2009	2010
	(dollars in thousands)	
U.S. and State Government:		
Amount billable	$ 143	$ 30
Amount billed	—	313
Total U.S. and State Government	143	343
Commercial	1,091	743
Less: Allowance for doubtful accounts	(92)	—
Total	$ 1,142	$ 1,086

As of December 31, 2009 and 2010, the Company had a reserve for doubtful trade accounts receivable of $92 thousand and $-0-, respectively.

4. Inventories

Inventories consist of the following at December 31:

	2009	2010
	(dollars in thousands)	
Finished goods	$ 314	$ 283
Work in process	193	156
Raw materials	282	405
	$ 789	$ 844

5. Property, Plant and Equipment

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

	2009	2010
	(dollars in thousands)	
Leasehold improvements	$ 1,213	$ 1,213
Computers and related software	2,164	2,164
Machinery and equipment	3,820	3,823
Office furniture and fixtures	473	473
	7,670	7,673
Less accumulated depreciation	6,811	7,248
	$ 859	$ 425

Depreciation expense was $819, $660, and $481 thousand for 2008, 2009, and 2010, respectively. Repairs and maintenance expense was $57, $20, and $18 thousand for 2008, 2009, and 2010, respectively.

6. Income Taxes

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

	2008	2009	2010
	(dollars in thousands)		
Federal	$ —	$ 9	$ —
State	(33)	199	4
Deferred	(1,971)	—	—
Total	$ (2,004)	$ 208	$ 4

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

	2008	2009	2010
	(dollars in thousands)		
Total change in unrealized (gain) loss on securities available for sale:			
Deferred tax benefit (expense)	$ 989	$ —	—
Valuation allowance (expense)	(989)	—	—
Tax effect of reclassification adjustment for gains included in net income (loss)	1,971	—	—
	$ 1,971	$ —	$ —

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

	2008	2009	2010
	(dollars in thousands)		
Deferred tax benefit (expense)	$ 721	$ 432	$ 676
Net operating loss carry forward	3,837	(1,927)	740
Valuation allowance	(4,558)	1,495	(1,416)
Disproportionate tax effect of reclassification adjustment for gains included in net income (loss)	(1,971)	—	—
	$ (1,971)	$ 0	$ —

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

	2008	2009	2010
Federal statutory tax rate	34%	34%	34%
State taxes, net of federal tax effect	3	—	6
Change in valuation allowance	(42)	42	(42)
Disproportionate tax effect of reclassification adjustment for gains included in net income (loss)	(16)	—	—
Permanent tax difference on derivative valuation	2	—	—
Loss on extinguishment of debt	—	(2)	—
IRC Section 382 Limitation	—	(64)	—
Expiring net operating loss	—	—	(3)
Adjustment to opening deferred tax balance	—	(3)	5
Other, net	—	(1)	—
Tax Rate	(19)%	6%	0%

Pre-tax loss before non-controlling interests was $10.8, $3.6, and $3.4 million for 2008, 2009, and 2010, respectively. The deferred tax assets and liabilities as of December 31 consist of the following tax effects relating to temporary differences and carry forwards:

	2009	2010
	(dollars in thousands)	
Current deferred tax assets (liabilities):		
Inventory valuation	$ 211	$ 157
Inventory capitalization	16	13
Bad Debt Reserve	37	—
Vacation pay	82	77
Warranty and other sale obligations	9	14
Other reserves and accruals	81	63
	436	324
Valuation allowance	(436)	(324)
Net current deferred tax assets (liabilities)	$ —	$ —
Noncurrent deferred tax assets (liabilities):		
Net operating loss	$ 22,947	$ 23,688
Property, plant and equipment	158	366
Stock options	2,340	2,918
Research and development tax credit	459	450
Alternative minimum tax credit	45	54
	25,949	27,476
Valuation allowance	(25,949)	(27,476)
Non-current net deferred tax assets	$ —	$ —

The valuation allowance at December 31, 2009 and 2010 was $26.4 and $27.8 million, respectively. The net change in the valuation allowance was $(1.5) million in 2009 and $1.4 million in 2010. The valuation allowance at December 31, 2009 and 2010 reflects the estimate that it is more likely than not that the net deferred tax assets may not be realized.

At December 31, 2010, the Company has unused Federal net operating loss carry forwards of approximately $67 million. Of these carry forwards, $1.3 million represents windfall tax benefits from stock option transactions, the tax effect of which are not included in the Company's net deferred tax assets. Additionally, it is estimated that $6.7 million of these carryforwards will expire prior to utilization due to IRC Section 382 limitation described below. This net operating loss limited by IRC Section 382 is not reflected in the Company's deferred tax asset as of December 31, 2010. The balance of the net operating losses carried forward from 2009 of $65.4 million was reduced by $2.2 million in expired net operating losses. $1.9 million of the expired net operating losses related to uncertain tax positions, Therefore, the tax effect was not previously included in the above deferred tax assets. The remaining Federal net operating loss carry forwards, if unused, will continue to expire beginning in 2020.

The Company's and/or its subsidiaries' ability to utilize their net operating loss carryforwards may be significantly limited by Section 382 of the Internal Revenue Code of 1986, as amended, if the Company or any of its subsidiaries undergoes an "ownership change" as a result of changes in the ownership of the Company's or its subsidiaries' outstanding stock pursuant to the exercise of the warrants or otherwise. A corporation generally undergoes an "ownership change" when the ownership of its stock, by value, changes by more than 50 percentage points over any three-year testing period. In the event of an ownership change, Section 382 imposes an annual limitation on the amount of post-ownership change taxable income a corporation may offset with pre-ownership change net operating loss carryforwards and certain recognized built-in losses. As of December 31, 2010, although no formal Section 382 study has been performed, the Company does not appear to have had an ownership change for Section 382 purposes. However, as noted below, as a result of MTI Micro's conversion of the Bridge Notes (combined with the Company's ownership changes) MTI Micro appears to have had an ownership change for Section 382 purposes which places limitations on the utilization of MTI Micro's separate company net operating loss carryforwards.

As a result of the conversion of the Bridge Notes in December of 2009 (see Footnote 17 for further discussion of the transaction), MTI no longer maintained an 80% or greater ownership in MTI Micro. Thus, MTI Micro is no longer included in Mechanical Technology, Inc. and Subsidiaries' consolidated federal and combined New York State tax returns, effective December 9, 2009.

Pursuant to the Internal Revenue Service's consolidated tax return regulations (IRS Regulation Section 1.1502-36), upon MTI Micro leaving the Mechanical Technology, Inc. and Subsidiaries consolidated group, MTI has elected to reduce a portion of its stock tax basis in MTI Micro by "reattributing" a portion of MTI Micro's net operating loss carry forwards to MTI, for an amount equivalent to its built in loss amount in MTI's investment in MTI Micro's stock.

As the result of MTI making this election with its December 31, 2009 tax return, MTI reattributed approximately $45.2 million of MTI Micro's net operating losses (reducing its tax basis in MTI Micro's stock by the same amount), leaving MTI Micro with approximately $13 million of separate company net operating loss carry forwards at the time of conversion of the Bridge Notes. However, as noted above, as the result of a Section 382 limitation, caused by the conversion, it is estimated that at least $6.69 million of these net operating losses will expire prior to utilization.

As of December 31, 2010, it is estimated that MTI has net operating loss carryforwards of approximately $51.9 million and MTI Micro has net operating loss carryforwards of approximately $15.3 million (with a portion, as noted above, being subject to IRC Section 382 limitation).

As of December 31, 2010, the Company has approximately $450 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. 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.

A reconciliation of the beginning and ending amount of unrecognized tax benefits in accordance with ASC 740 for 2008, 2009 and 2010 is as follows:

	2008	2009	2010
	(dollars in thousands)		
Balance as of January 1,	$ 2,044	$ 2,049	$ 1,836
Additions for tax positions of prior years	5	—	—
Deductions for settlements	—	213	650
Balance as of December 31,	$ 2,049	$ 1,836	$ 1,186

In future periods, if $1.2 million of these unrecognized benefits become supportable, the Company may not recognize a change in its effective tax rate as long as it remains in a full valuation allowance position. Additionally the Company does not have uncertain tax positions that it expects will increase or decrease within twelve months of this reporting date. In accordance with the Company's accounting policy, it recognizes

interest and penalties related to uncertain tax positions as a component of tax expense. This policy did not change as a result of the adoption of ASC 704's accounting for uncertain tax positions. The Company did not recognize any interest or penalties in 2010, and recognized interest and penalties income of $47 thousand in 2009 (upon settlement of the NYS audit discussed below). For both December 31, 2009 and 2010, the Company had $0 of accrued interest and penalties related to uncertain tax positions.

The Company files income tax returns, including returns for its subsidiaries, with federal and state jurisdictions. The Company is no longer subject to IRS or NYS examinations for its federal and state returns for any periods prior to 2007, although carryforward attributes that were generated prior to 2007 may still be adjusted upon examination by the IRS if they either have been or will be used in a future period. On February 2, 2009, New York State Department of Taxation and Finance notified the Company that it was no longer going to pursue the issue associated with potentially not permitting the Company to file combined tax returns for the period 2002 through 2004. At December 31, 2008 the Company had recorded a $213 thousand long-term liability for this issue. In the settlement of this issue, the Company paid New York State approximately $19 thousand and recognized the benefit of the reversal of this liability of $194 thousand in the first quarter of 2009.

7. Accrued Liabilities

Accrued liabilities consist of the following at December 31:

	2009	2010
	(dollars in thousands)	
Salaries, wages and related expenses	$ 525	$ 476
Liability to shareholders for previous acquisition	363	363
Legal and professional fees	183	173
Warranty and other sale obligations	20	36
Commissions	13	36
Other	186	189
	$ 1,290	$ 1,273

8. Fair Value Measurement

The estimated fair value of certain financial instruments, including cash, cash equivalents and short-term debt approximates their carrying value due to their short maturities and varying interest rates. “Fair value” is the price that would be received to sell an asset or transfer a liability in an orderly transaction between market participants at the measurement date. The Company utilizes valuation techniques that maximize the use of observable inputs and minimize the use of unobservable inputs. Based on the observability of the inputs used in the valuation methods, the Company is required to provide the following information according to the fair value accounting standards. These standards established a fair value hierarchy as specified that ranks the quality and reliability of the information used to determine fair values. Financial assets and liabilities are classified and disclosed in one of the following three categories:

Level 1: Quoted market prices in active markets for identical assets or liabilities, which includes listed equities.

Level 2: Observable market based inputs or unobservable inputs that are corroborated by market data. These items are typically priced using models or other valuation techniques. These models are primarily financial industry-standard models that consider various assumptions, including the time value of money, yield curves, volatility factors, as well as other relevant economic measures.

Level 3: These use unobservable inputs that are not corroborated by market data. These values are generally estimated based upon methodologies utilizing significant inputs that are generally less observable from objective sources.

In determining the appropriate levels, the Company performs a detailed analysis of financial assets and liabilities. At each reporting period, all assets and liabilities for which the fair value measurements are based upon significant unobservable inputs are classified as Level 3. The derivative liability is valued using the Black-Scholes Option Pricing Model which is based upon unobservable inputs.

The following is a summary of the Company's fair value instruments categorized by their associated fair value input level:

(Dollars in thousands)

Balance Sheet Classification	Level 1	Level 2	Level 3	Balance at December 31, 2010
Financial Liabilities:				
Derivative liability	$ —	$ —	$ 73	$ 73
Total fair value of liabilities	$ —	$ —	$ 73	$ 73

The following is a rollforward of Level 3 fair value instruments for the year ended December 31, 2009:

(Dollars in thousands)

Instrument	Beginning Balance as of Jan. 1, 2009	Total (Gains) / Losses Realized and Unrealized	Purchases, Issuances, Sales and Settlements	Ending Balance as of December 31, 2009
Derivative liability	$ 41	$ 29	$ —	$ 70
Total Level 3 instruments	$ 41	$ 29	$ —	$ 70

The following is a rollforward of Level 3 fair value instruments for the year ended December 31, 2010:

(Dollars in thousands)

Instrument	Beginning Balance as of Jan. 1, 2010	Total (Gains) / Losses Realized and Unrealized	Purchases, Issuances, Sales and Settlements	Ending Balance as of December 31, 2010
Derivative liability	$ 70	$ 3	$ —	$ 73
Total Level 3 instruments	$ 70	$ 3	$ —	$ 73

9. Stockholders' Equity

Common Shares

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

	2008	2009	2010
Balance, beginning	5,777,578	5,776,750	5,776,750
Fractional shares redeemed during reverse stock split	(203)	—	—
Forfeiture of restricted stock grants	(625)	—	—
Balance, ending	5,776,750	5,776,750	5,776,750

Sale of Common Stock

On December 15, 2006, the Company entered into agreements with certain investors to sell 756,944 shares of common stock and warrants to purchase 378,472 shares of common stock for an aggregate purchase price of $10.9 million. The common stock and warrants were sold in units, with each unit consisting of 12.5 shares of common stock and a warrant to purchase 6.25 shares of common stock, at an exercise price of $18.16 per share. Each non-certificated unit was sold at a negotiated price of $180.00. The shares of common stock and warrants were immediately separable and were issued separately (see Warrants Issued below). The common stock, the warrants and shares issuable upon exercise of the warrants were registered with the SEC.

Warrants Issued

On December 20, 2006, the Company issued warrants to investors to purchase 378,472 shares of the Company's common stock at an exercise price of $18.16 per share. These warrants will be fair valued by the Company until expiration or exercise of the warrants. The warrants became exercisable on June 20, 2007 and expire on December 19, 2011. The fair value of the warrants at December 31, 2009 and 2010 was $70 thousand and $73 thousand, respectively.

Reservation of Shares

The Company has reserved common shares for future issuance as follows as of December 31, 2010:

Stock options outstanding	878,986
Stock options available for issuance	114,591
Warrants outstanding	378,472
Number of common shares reserved	1,372,049

The decrease in the Company's paid-in-capital of $(128) thousand in 2008 and $-0- in both 2009 and 2010, represents the changes in the Company's equity investment in MTI Micro, which resulted from the conversion of the bridge note and the anti-dilutive impact of the Company's investments into and third-party stock transactions in MTI Micro stock.

10. Issuance of Stock by Subsidiary

MTI Micro was formed on March 26, 2001 and as of December 31, 2010 the Company owned approximately 50.6% of MTI Micro's outstanding common stock, or 75,049,937 shares, and 56.3% on a fully diluted basis, which includes 32,904,136 warrants outstanding in addition to the outstanding shares of common stock. The number of MTI Micro common stock shares authorized for issuance is 240,000,000 as of December 31, 2010.

MTI Micro Ownership, Common Shares Only

Changes in common shares of MTI micro, broken down between MTI holdings and non-controlling interests, are as follows:

		MTI		NCI		
	Average Price	Shares	Ownership %	Shares	Ownership %	Total Shares
Balance at 1/1/2008		46,030,453	96.3	1,750,345	3.7	47,780,798
Stock issued for MTI Options to MFC Employees	$0.45	31,469				31,469
Transfer of Plug Power securities to MFC	$0.35	7,319,181				7,319,181
Conversion of Loan Receivable	$0.24	10,416,667				10,416,667
Balance at 12/31/08		63,797,770	97.3	1,750,345	2.7	65,548,115
Stock issued for MTI Options to MFC Employees.	$0.14	10,501				10,501
Conversion of Bridge Loan	$0.07	11,241,666		44,622,759		55,864,425
Balance at 12/31/09		75,049,937	61.8	46,373,104	38.2	121,423,041
Common Stock issued under Purchase Agreement	$0.07			26,952,386		26,952,386

Balance at 12/31/10	75,049,937	50.58	73,325,490	49.42	148,375,427

Reservation of Shares

MTI Micro has reserved common shares for future issuance, broken down between MTI holdings and non-controlling interests, as follows as of December 31, 2010:

	MTI	NCI	Total
Stock options outstanding		33,050,720	33,050,720
Warrants outstanding	32,904,136	10,346,888	43,251,024
Number of shares reserved for outstanding options and warrants	32,904,136	43,397,608	76,301,744

In addition, MTI Micro has 4,956,280 stock options available for issuance.

Sale of Common Stock

On January 11, 2010, MTI Micro entered into a Common Stock and Warrant Purchase Agreement (the “Purchase Agreement”) with Counter Point Ventures Fund II, L.P. (“Counter Point”). Counter Point is managed by Dr. Walter L. Robb, a member of the Board of Directors of the Company and MTI Micro, and is a current stockholder of MTI Micro. Dr. Robb and Counter Point beneficially held approximately 29.5% of the common stock and warrants of MTI Micro as of December 31, 2009, and as of December 31, 2010 hold an aggregate of approximately 41.4% of the common stock and warrants of MTI Micro.

Pursuant to the Purchase Agreement, MTI Micro could issue and sell to Counter Point up to 28,571,429 shares of common stock, par value $0.01 per share (the “Micro Common Stock”), at a purchase price per share of $0.070, over a period of twelve (12) months, and warrants (“Warrants”) to purchase shares of Micro Common Stock equal to 20% of the shares of Micro Common Stock purchased under the Purchase Agreement at an exercise price of $0.070 per share. The sale and issuance of the Micro Common Stock and Warrants occurred over multiple closings (each, a “Closing”). Nine Closings occurred through December 31, 2010, with MTI Micro raising $1.89 million from the sale of 26,952,386 shares of Micro Common Stock and Warrants to purchase 5,390,477 shares of Micro Common Stock to Counter Point. The final Closing occurred on January 5, 2011, whereby MTI Micro drew down the remaining $113 thousand available under the Purchase Agreement. After the final Closing, the Company continues to hold an aggregate of 55.8% of the common stock and warrants of MTI Micro.

On February 9, 2011, Amendment No. 1 to Common Stock and Warrant Purchase Agreement (the “Amendment”) was entered into between MTI Micro and Counter Point. The Amendment allows MTI Micro to draw down an additional $450 thousand through June 30, 2011 in exchange for 6,428,574 shares of MTI Micro Common Stock and 1,285,715 warrants. The funds are available through monthly “Closings”, with the amount available of $90 thousand for the month of February, $45 thousand for the month of March, and $105 thousand for the months of April through June.

Warrants Issued

On December 9, 2009, MTI Micro issued warrants to the current shareholders of MTI Micro, including the Company, without consideration, to purchase 32,779,310 shares of MTI Micro Stock at an exercise price of $0.07 per share. The warrants became exercisable on December 9, 2010 and expire on December 8, 2017. The warrants have been accounted for as an equity distribution of $2.03 million, including warrants to the Company with a value of $1.97 million that were eliminated in consolidation.

On December 9, 2009, MTI Micro issued warrants to the Bridge Investors of MTI Micro, including the Company, to purchase 5,081,237 shares of MTI Micro Stock at an exercise price of $0.07 per share. The Warrants became exercisable on December 9, 2009 and will expire on the earlier of: (i) April 15, 2014; (ii) immediately prior to a change in control; or (iii) immediately prior to an initial public offering of MTI Micro. The warrants were issued without consideration and were accounted for as equity and a loss on extinguishment of debt was recorded in the amount of $289 thousand, including warrants to the Company with a value of $57 thousand that were eliminated in consolidation.

MTI Micro issued 5,390,477 warrants to Counter Point to purchase shares of MTI Micro Stock at an exercise price of $0.07 per share under the Purchase Agreement during 2010. The warrants became exercisable on the date of issuance and will expire on the earlier of (a) the five (5) year anniversary of the Date of Issuance of the Warrant; (b) immediately prior to a Change of Control; or (c) the closing of a firm commitment underwritten public offering pursuant to a registration statement under the Securities Act. The warrants were accounted for as equity.

Refer to Note 17 for further discussion.

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 $136, $141, and $107 thousand for 2008, 2009, and 2010, 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 2008, 2009, or 2010.

12. Loss 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:

	2008	2009	2010
	(dollars in thousands, except shares)		
Numerator:			
Net loss	$ (12,504)	$ (3,099)	$ (1,758)
Denominator:			
Basic EPS:			
Common shares outstanding, beginning of period	4,772,486	4,771,658	4,771,658
Weighted average common shares issued during the period	—	—	—
Weighted average restricted shares forfeited during the period	(323)	—	—
Weighted average common shares redeemed during the period in conjunction with the reverse stock split	(127)	—	—
Effect of non-vested restricted stock	323	—	—
Denominator for basic earnings per common shares — Weighted average common shares	4,772,359	4,771,658	4,771,658
Diluted EPS:			
Common shares outstanding, beginning of period	4,772,486	4,771,658	4,771,658
Weighted average common shares issued during the period	—	—	—
Weighted average restricted shares forfeited during the period	(323)	—	—
Weighted average common shares redeemed during the period in conjunction with the reverse stock split	(127)	—	—
Effect of non-vested restricted stock due to anti-dilutive effect	323	—	—
Denominator for diluted earnings per common shares - Weighted average common shares	4,772,359	4,771,658	4,771,658

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2008 were options to purchase 780,340 shares of the Company's common stock, warrants to purchase 378,472 shares of the Company's stock and options to purchase 15,001 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2009 were options to purchase 716,403 shares of the Company's common stock, warrants to purchase 378,472 shares of the Company's stock, and options to purchase 15,001 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

Not included in the computation of earnings per share-assuming dilution for the year ended December 31, 2010 were options to purchase 878,986 shares of the Company's common stock, warrants to purchase 378,472 shares of the Company's stock, and options to purchase 33,050,720 shares of MTI Micro's common stock. These potentially dilutive items were excluded because the Company incurred a loss for this period and their inclusion would be anti-dilutive.

13. Stock Based Compensation

MTI Option Plans

Stock-based incentive awards are provided to employees and directors under the terms of the Company's 1996 Stock Incentive Plan ("1996 Plan"), 1999 Employee Stock Incentive Plan ("1999 Plan") and 2006 Equity Incentive Plan ("2006 Plan"), which was amended and restated effective September 16, 2009, (collectively, the "Plans"). Awards under the Plans have generally included at-the-money options and restricted stock grants.

The 1996 Plan was approved by stockholders 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. The total number of shares which may be awarded under the 1996 Plan was 468,352 during 2005. 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.

The 1999 Plan was adopted by the Company's Board of Directors, approved by stockholders on March 18, 1999 and expired during 2009. The 1999 Plan provided an initial aggregate number of 1,000,000 shares of common stock to be awarded or issued. The number of shares to be awarded under the 1999 Plan and awards outstanding were adjusted for stock splits, and during 2005, 2006, and 2007, the total number of shares which could be awarded under the 1999 Plan was 562,500 shares. Under the 1999 Plan, the Board of Directors was authorized to issue stock-based awards to officers, employees and others.

The 2006 Plan was adopted by the Company's Board of Directors on March 16, 2006 and approved by stockholders on May 18, 2006. The plan was amended by the Board of Directors and restated effective September 16, 2009. The Amended and Restated 2006 Equity Incentive Plan increased the initial aggregate number of 250,000 shares of common stock which may be awarded or issued to 600,000. The number of shares which may be awarded under the 2006 Plan and awards outstanding has been 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.

Stock-based compensation expense for the year ended December 31, 2010 was generated from stock option 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 of Directors 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 the closing market value price of the Company's common stock on the date of grant. Unexercised options generally terminate either seven or ten years after date of grant.

Share-Based Compensation Information under accounting guidance for share-based payments

The Company estimates the fair value of stock options using a Black Scholes valuation model consistent with the accounting standards. 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:

	2009	2010
Option term (years)	3.34	5.03
Volatility	115.3 – 117%	128.3– 150%
Risk-free interest rate range	2.28-2.49%	1.46 – 2.04%
Dividend yield	0%	0%

Weighted-average fair value per option granted	$ 1.02	$ 0.54

Share-based compensation expense recognized in the Consolidated Statements of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. The revised accounting standard requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates.

Stock-Based Compensation Expense — All Accounting Treatments

Total share-based compensation expense, related to all of the Company's share-based awards, recognized for the years ended December 31, was comprised as follows:

	2008	2009	2010
	(dollars in thousands, except eps)		
Unfunded research and product development	$ 186	$ 92	$ 21
Selling, general and administrative	658	413	226
Share-based compensation expense	$ 844	$ 505	$ 247
Impact on basic and diluted EPS	$ (0.18)	$ (0.11)	$ (.05)

Total unrecognized compensation costs related to non-vested awards as of December 31, 2010 is $292 thousand, and is expected to be recognized over a weighted-average vesting period of approximately 1.31 years.

As a result of the amendment in 2009 of the 2006 plan, 450,000 additional shares were made available for granting. Presented below is a summary of the Company's stock option plans' activity for the years ended December 31:

	2008	2009	2010
Shares under option, beginning	776,696	780,340	716,403
Granted	213,039	171,750	216,000
Exercised	—	—	—
Canceled/Forfeited	(58,956)	(89,799)	(8,506)
Expired	(150,439)	(145,888)	(44,911)
Shares under option, ending	780,340	716,403	878,986
Options exercisable	532,298	571,617	719,623
Remaining shares available for granting of options	68,641	316,216	114,591

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

	2008	2009	2010
Shares under option, beginning	25.86	21.56	15.97
Granted	2.80	1.31	0.59
Exercised	—	—	—
Canceled/Forfeited	13.10	4.09	8.85
Expired	20.65	35.91	32.64
Shares under option, ending	21.56	15.97	11.41
Options exercisable, ending	28.33	18.72	13.59

The following table summarizes information for options outstanding and exercisable at December 31, 2010:

	Outstanding Options			Options Exercisable	
Exercise Price Range	Number	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$0.00 - $1.15	276,000	9.50	$ 0.72	177,016	$ 0.78
$1.16 - $3.60	234,375	6.63	$ 1.86	185,962	$ 1.98
$3.61 - $14.24	127,192	3.42	$ 11.42	115,226	$ 11.54
$14.25 - $22.64	48,978	3.32	$ 19.28	48,978	$ 19.28

$22.65 - $33.36	63,373	3.65	$	30.12	63,373	$ 30.12
$33.37 - $50.24	129,068	2.38	$	39.45	129,068	$ 39.45
	878,986	6.04	$	11.41	719,623	$ 13.59

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) is $44 thousand for the Company's outstanding options and $24 thousand for the exercisable options as of December 31, 2010. The amounts are based on the Company's closing stock price of $0.80 as of December 31, 2010.

There were no unvested restricted stock options for the period ended December 31, 2010. The aggregate intrinsic value of restricted stock vested during the year ended December 31, 2010 was zero.

MTI Micro Option Plans

MTI Micro has two plans for issuing MTI Micro stock-based incentive awards; the MTI MicroFuel Cells Inc. 2001 Employee, Director and Consultant Stock Option Plan (“2001 MTI Micro Plan”) and the MTI MicroFuel Cells Inc. 2009 Stock Plan (“2009 Micro Plan”).

The 2001 MTI Micro Plan was approved by MTI Micro’s stockholders 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 2005, 2006, and 2007, 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. 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 Board approved the MTI MicroFuel Cells Inc. 2009 Stock Plan on December 8, 2009. This plan provided an initial aggregate number of 38,000,000 shares of MTI Micro’s common stock to be awarded. Under the 2009 MTI Micro Plan, the Board is authorized to award stock options to directors, employees, consultants and advisors of MTI Micro.

On September 15, 2010, MTI Micro granted 6,330,520 options to its employees from the 2009 Micro Stock Option Plan. The options vest 50% on the grant date and 50% ratably on a quarterly basis over the next three years. The fair value of these stock options granted was estimated at the date of grant using a Black-Scholes Option Pricing model consistent with the accounting standards.

The key inputs and assumptions used to estimate the fair value of these stock options were as follows:

Option term	5 years
Volatility	115%
Risk-free interest rate	1.46%
Dividend yield	0%
Fair value per option granted	$ 0.07

The amount of expense recognized for this grant was $187 thousand for 2010. Share-based compensation expense recognized in the Consolidated Statement of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. The accounting standard requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company has assumed a forfeiture rate of 5% for this grant.

On February 10, 2010, MTI Micro granted 28,296,800 options to its employees from the 2009 Micro Stock Option Plan. The options vest 50% on the grant date and 50% ratably on a quarterly basis over the next three years. The fair value of these stock options granted was estimated at the date of grant using a Black-Scholes Option Pricing model consistent with the accounting standards.

The key inputs and assumptions used to estimate the fair value of these stock options were as follows:

Option term	5 years
Volatility	115%
Risk-free interest rate	2.39%
Dividend yield	0%
Fair value per option granted	$ 0.07

The amount of expense recognized for this grant was $1.01 million for 2010. Share-based compensation expense recognized in the Consolidated Statement of Operations is based on awards ultimately expected to vest, therefore, awards are reduced for estimated forfeitures. The accounting standard requires forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. The Company has assumed a forfeiture rate of 5% for this grant.

Options issued to employees generally vested 50% on the grant date and 50% ratably on a quarterly basis over the next three years. 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 accounting guidance in accounting for employee stock-based compensation, and provided the disclosures required under the revised accounting standard. This required 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 the market value at the date of grant. However, the accounting treatment 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 the revised accounting standard for share-based payments.

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 plans:

	2008	2009	2010
	(dollars in thousands)		
Stock option compensation expense	$ 2	$ —	$ 1,199
Total stock-based compensation expense	$ 2	$ —	$ 1,199

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

	2008	2009	2010
Shares under option, beginning	22,668	15,001	15,001
Granted	—	—	34,627,320
Exercised	—	—	—
Canceled/Forfeited	(7,667)	—	(1,591,601)
Shares under option, ending	15,001	15,001	33,050,720
Options exercisable	15,001	15,001	20,137,783
Remaining shares available for granting of options	3,343,863	38,000,000	4,956,280

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

	2008	2009	2010
Shares under option, beginning	$ 3.70	$ 3.89	$ 3.89
Granted	—	—	0.07
Exercised	—	—	—
Canceled/Forfeited	3.33	—	0.09
Shares under option, ending	3.89	3.89	0.07
Options exercisable, ending	3.89	3.89	0.07

In accordance with the accounting guidance, 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	
Exercise Price Range	Number	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price	Number	Weighted Average Exercise Price
$0.07 - $2.54	30,043,720	9.23	$ 0.07	20,124,783	$ 0.07
$2.55 - $3.79	2,000	2.25	$ 2.55	2,000	$ 2.55
$3.80 - $4.65	1,167	1.86	$ 3.80	1,167	$ 3.80
$4.66 - $4.66	3,833	3.25	$ 4.66	3,833	$ 4.66
	33,050,720	9.22	$ 0.07	20,131,783	$ 0.07

14. Cash Flows — Supplemental Information

	Years Ended December 31,		
	2008	2009	2010
	(dollars in thousands)		
Non-Cash Investing and Financing Activities:			
Change in investment and paid-in capital resulting from other			

investors' activity in MTI Micro stock	$ (128)	$ 3,411	$ —

15. Derivatives

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

	2009	2010	Expiration
Derivatives issued:			
Warrants, exercisable beginning June 20, 2007, to purchase the Company's common stock issued to three investors at a purchase price of $18.16 per share	378,472	378,472	12/19/2011

Warrant Derivative to Purchase MTI Common Stock: 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 the accounting guidance.

The estimated fair value of this warrant at the date issued was $18.16 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 fair value of the derivative is recorded in the "Derivative Liability" line on its financial statements, and is valued quarterly using the Black-Scholes Option Pricing Model. The assumptions used for the valuations as of December 31 were as follows:

	2009	2010
Expected life of option (days)	730	365
Risk-free interest rate	1.14 %	0.29 %
Expected volatility of stock	162.7%	219.4%
Expected dividend yield	None	None

The Company recognizes changes in fair value in its Consolidated Statements of Operations in the line titled "Gain (loss) on derivatives."

16. Commitments

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): $323 in 2011, $271 in 2012, $278 in 2013 and $260 in 2014. Rent expense under all leases was $645, $564, and $528 thousand for 2008, 2009, and 2010, respectively.

Licenses

On January 24, 2008, the Company cancelled its non-exclusive licensing agreement with Los Alamos National Laboratory ("LANL") covering certain direct methanol fuel cell technology. This agreement, which was last amended on May 17, 2006, prescribed annual license fees ranging from $35,000 in 2008 to $100,000 in 2019. The Company paid a one-time fee of $50,000 to cancel the agreement, and no future royalties will be paid. The Company cancelled this agreement because it no longer considers the direct methanol fuel cell technology licensed from LANL to be applicable to its future products.

Under a 2002 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.

Under the 2010 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. The obligation commences on the first date of the first sale of these products and is in place for fifteen years. Total royalties are subject to a cap equal to three times the total contract funds paid by NYSERDA to MTI Micro. However, if the product is manufactured by a New York State manufacturer, this royalty is reduced to 1.5% and total royalties are subject to a cap equal to one times the total contract funds paid by NYSERDA to MTI Micro.

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, 2010, the Company's potential minimum obligation to these employees was approximately $685 thousand.

Royalty Commitment

On January 28, 2010, MTI Instruments entered into an Asset Purchase and Sale Agreement with Ernest F. Fullam, Inc., Peter Fullam and Diane Fullam to acquire the tensile stage line of products from Ernest F. Fullam, Inc, a pioneering microscopy accessories company from Clifton Park, NY. As part of the acquisition, Mr. Peter Fullam joined MTI Instruments as a Product Sales Engineer and MTI Instruments purchased machinery, inventory and the rights to use the Fullam/MTI Instruments product name. Additionally, commencing with the calendar quarter ending March 31, 2010 and ending at the close of the calendar quarter ending December 31, 2012, MTI Instruments will pay Ernest F. Fullam, Inc. a royalty equal to 5% of the Gross Sales achieved on specific Fullam products. MTI Instruments paid Fullam $12 thousand of royalties in 2010.

17. Equity Investments for MTI Micro – related party

On September 18, 2008, MTI Micro executed a Convertible Note and Warrant Purchase Agreement (the "Purchase Agreement"), Secured Convertible Promissory Note Agreements (the "Bridge Notes"), Security Agreement (the "Security Agreement') and Warrant Agreements (the "Warrants"). The investors (the "Bridge Investors") included MTI, in the form of conversion of existing debt of $700 thousand, Dr. Walter L. Robb, a member of the Company's and MTI Micro's Boards of Directors, and Counter Point Ventures Fund II, LP (Counter Point). Counter Point is a venture capital fund sponsored and managed by Dr. Walter L. Robb. General Electric Pension Trust, an employee benefit plan trust, is a passive limited partner in Counter Point. The Bridge Notes allowed MTI Micro to borrow up to an aggregate of $2.2 million, including conversion of the outstanding debt totaling $700 thousand owed to the Company. Under this agreement, MTI Micro closed on $1.5 million of funding from Other Investors on September 18, 2008.

On February 20, 2009, MTI Micro and the Investors agreed to, among other things, amend the Bridge Notes ("Amendment No. 1") to permit MTI Micro to sell additional Bridge Notes with an additional principal amount of up to $500 thousand to additional investors, and to extend the maturity date from March 31, 2009 to May 31, 2009 (the "Maturity Date"). No other terms of the Bridge Notes were amended. Following the effectiveness of the Amendment No. 1, MTI Micro borrowed an additional $500 thousand from Counter Point, bringing the aggregate outstanding principal amount borrowed under the Bridge Notes, as amended, to $2.7 million, including conversion of outstanding debt totaling $700 thousand owed to the Company.

On April 15, 2009, MTI Micro and the Investors agreed to amend the Bridge Notes ("Amendment No. 2") to permit MTI Micro to sell additional Bridge Notes with an additional principal amount of up to $800 thousand to an additional investor and Counter Point, and to extend the maturity date from May 31, 2009 to March 31, 2010 (the "Maturity Date"). Effective December 4, 2009, MTI Micro had sold all additional Bridge Notes. The Bridge Notes had an interest rate of 10%, compounded annually.

On December 9, 2009, MTI Micro entered into a Secured Convertible Promissory Note Negotiated Conversion Agreement (the "Conversion Agreement") with the Company and the other Bridge Investors. The parties agreed to, among other things, convert the aggregate principal and accrued interest amount of $3,910,510 outstanding under the Bridge Notes into an aggregate of 55,864,425 shares of Common Stock of MTI Micro using a conversion price per share of $0.070 (the "Negotiated Conversion"). Warrants to purchase MTI Micro common stock at $0.07 per share were issued to Bridge Investors for an aggregate of 5,081,237 shares. As an incentive for MTI Micro to agree to the terms of the Negotiated Conversion, MTI Micro, the Company and the Bridge Investors also agreed that immediately prior to the consummation of the Negotiated Conversion, MTI Micro would issue to each current MTI Micro stockholder (including the Company), without consideration, a warrant ("Micro Warrant") exercisable after one (1) year for up to 50% of the aggregate number of shares of Common Stock each such MTI Micro stockholder currently held in MTI Micro, at $0.070 per share and with a term of seven (7) years. Accordingly, immediately prior to the consummation of the Negotiated Conversion on December 9, 2009, MTI Micro issued Micro Warrants exercisable for an aggregate of 32,779,310 shares of MTI Micro Common Stock.

As a result of the Negotiated Conversion, the Company converted an aggregate principal and accrued interest amount of $786,917 outstanding under the Bridge Notes into an aggregate of 11,241,666 shares of Common Stock of MTI Micro, and the Company's ownership interest in MTI Micro decreased from approximately 97.3% to approximately 61.8%, or 67.8% on a fully-diluted basis including the Micro Warrants issued to all current MTI Micro stockholders and the Bridge Warrants. The balance of the Bridge Note payable was $-0- as of December 31, 2009.

On January 11, 2010, MTI Micro entered into a Common Stock and Warrant Purchase Agreement (the "Purchase Agreement") with Counter Point. Dr. Robb and Counter Point beneficially held approximately 27.0% of the fully-diluted common stock of MTI Micro as of December 31, 2009, and as of December 31, 2010 hold an aggregate of approximately 35.3% of the fully-diluted common stock of MTI Micro.

Pursuant to the Purchase Agreement, MTI Micro could issue and sell to Counter Point up to 28,571,429 shares of common stock, par value $0.01 per share (the "Micro Common Stock"), at a purchase price per share of $0.070, over a period of twelve (12) months, and warrants ("Warrants") to purchase shares of Micro Common Stock equal to 20% of the shares of Micro Common Stock purchased under the Purchase Agreement at an exercise price of $0.070 per share. The sale and issuance of the Micro Common Stock and Warrants occurred over multiple

closings (each, a “Closing”). Nine Closings occurred through December 31, 2010, with MTI Micro raising $1.89 million from the sale of 26,952,386 shares of Micro Common Stock and Warrants to purchase 5,390,477 shares of Micro Common Stock to Counter Point. The final Closing occurred on January 5, 2011, whereby MTI Micro drew down the remaining $113 thousand available under the Purchase Agreement. After the final Closing, the Company continues to hold an aggregate of 47.64% of the fully-diluted common stock of MTI Micro.

On February 9, 2011, MTI Micro entered into Amendment No. 1 to Common Stock and Warrant Purchase Agreement (the "Amendment") with Counter Point. The Amendment allows MTI Micro to draw down an additional $450 thousand through June 30, 2011 in exchange for 6,428,574 shares of MTI Micro Common Stock, par value $0.01 per share, and 1,285,715 warrants. The funds are available through monthly "Closings", with the amount available of $90 thousand for the month of February, $45 thousand for the month of March, and $105 thousand for the months of April through June. One Closing has occurred through March 15, 2011, with MTI Micro raising $90 thousand from the sale of 1,285,714 shares of Micro Common Stock and Warrants to purchase 257,143 shares of Micro Common Stock to Counter Point. Subsequent Closings may occur thereafter at MTI Micro's sole discretion during the Closing Periods upon delivery of written notice by MTI Micro to Counter Point of its desire to consummate a Closing, and Counter Point's acceptance of such offer under the Amendment on the terms agreed upon with MTI Micro. In the event the terms and conditions of the Purchase Agreement no longer reflect current market conditions or otherwise, either party may elect not to participate in a Subsequent Closing(s) or the parties may amend the Purchase Agreement on mutually agreeable terms with respect to such Subsequent Closing(s). If MTI Micro were to issue and sell the remainder of the 6,428,574 shares under the Amendment, the Company would continue to hold an aggregate of 46.07% of the fully-diluted common stock of MTI Micro. For additional information regarding the Amendment, please see the Company's Form 8-K filed February 10, 2011.

Dr. Robb and Counter Point beneficially held approximately 27.0% of the fully-diluted common stock of MTI Micro of December 31, 2009, 35.30% as of December 31, 2010, and as of March 15, 2011 hold an aggregate of approximately 36.3% of the fully-diluted common stock of MTI Micro.

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:

	2008	2009	2010
	(dollars in thousands)		
Product revenue:			
United States	$ 3,309	$ 3,908	$ 4,7036
Japan	904	612	238
Singapore	112	23	170
Hong Kong	502	251	684
Korea	46	103	180
China	75	13	318
Taiwan	45	50	231
Other Pacific Rim	49	5	77
Germany	162	12	4
United Kingdom	189	149	58
Netherlands	29	147	164
Other Europe	131	56	46
Canada	212	59	168
Middle East	315	202	33
Turkey	4	463	—
Rest of World	140	210	105
Total product revenue	$ 6,224	$ 6,263	$ 7,179
Funded research and development revenue:			
United States	$ 1,154	$ 2,043	$ 1,234
Total funded research and development revenue	$ 1,154	$ 2,043	$ 1,234
Total revenue	$ 7,378	$ 8,306	$ 8,413

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:

	2008		2009		2010	
	Sales	%	Sales	%	Sales	%
	(dollars in thousands)					
Aviation Balancing Systems	$ 1,977	31.76 %	$ 2,768	44.19 %	$ 3,007	41.89 %
Precision Instruments	2,983	47.93	2,619	41.81	2,804	39.06
Semiconductor and Solar Metrology	1,264	20.31	876	14.00	1,368	19.05
Total	$ 6,224	100.00 %	$ 6,263	100.00 %	$ 7,179	100.00 %

In the Test and Measurement Instrumentation segment, the U.S. Air Force accounted for $974 thousand or 15.65% of total revenue in 2008, $1.2 million or 18.97% of total product revenue in 2009, and $1.6 million or 21.97% of total product revenue in 2010. The largest commercial customer in 2008 was a former Japanese distributor, who accounted for $864 thousand or 13.88% of total product revenue in 2008. The largest commercial customer in 2009 was a domestic US defense contractor, who accounted for $618 thousand or 9.86% of total product revenue in 2009. The largest commercial customer in 2010 was a Chinese distributor who accounted for $560 thousand, or 7.82% of total product revenue for the year.

In the New Energy segment, the DOE accounted for $1.2 million or 100% of total funded research and development revenue in 2008, $2.0 million or 100% of total funded research and development revenue in 2009, and $944 thousand or 77% of total funded research and development revenue in 2010.

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 non controlling 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 direct 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)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Three months Ended December 31, 2008					
Product revenue	$ —	$ 1,124	$ —	$ —	$ 1,124
Funded research and development revenue	272	—	—	—	272
Research and product development expenses	860	313	—	—	1,173
Selling, general and administrative expenses	587	376	388	—	1,351
Gain (loss) on securities available for sale	172	—	(241)	—	(69)
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(1,309)	(330)	(205)	—	(1,844)
Segment (loss) profit	(1,309)	(330)	(390)	5	(2,024)
Total assets	2,093	2,132	1,286	—	5,511
Capital expenditures	(8)	—	(1)	—	(9)
Depreciation and amortization	143	29	16	—	188

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Three months Ended December 31, 2009					
Product revenue	$ —	$ 1,966	$ —	$ —	$ 1,966
Funded research and development revenue	459	—	—	—	459

Research and product development expenses	1,029	212	—	—	1,241
Selling, general and administrative expenses	104	569	270	—	943
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(1,046)	276	(34)	57	(747)
Segment (loss) profit	(1,046)	276	(25)	265	(530)
Total assets	1,061	1,949	731	—	3,741
Capital expenditures	7	—	—	—	7
Depreciation and amortization	124	24	26	—	174

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Three months Ended December 31, 2010					
Product revenue	$ —	$ 2,637	$ —	$ —	$ 2,637
Funded research and development revenue	125	—	—	—	125
Research and product development expenses	492	231	—	—	723
Selling, general and administrative expenses	338	530	279	—	1,147
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(695)	793	(166)	—	(68)
Segment (loss) profit	(695)	793	(170)	350	278
Total assets	639	1,751	1,211	—	3,601
Capital expenditures	—	16	—	—	16
Depreciation and amortization	89	18	3	—	110

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Year Ended December 31, 2008					
Product revenue	$ —	$ 6,224	$ —	$ —	$ 6,224
Funded research and development revenue	1,154	—	—	—	1,154
Research and product development expenses	6,614	1,650	—	—	8,264
Selling, general and administrative expenses	2,463	2,331	3,575	—	8,369
Gain on securities available for sale	1,214	—	(196)	—	1,018
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(8,961)	(1,415)	(384)	—	(10,760)
Segment (loss) profit	(8,961)	(1,415)	(2,388)	260	(12,504)
Total assets	2,093	2,132	1,286	—	5,511
Capital expenditures	105	60	16	—	181
Depreciation and amortization	621	128	70	—	819

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Year Ended December 31, 2009					
Product revenue	$ —	$ 6,263	$ —	$ —	$ 6,263
Funded research and development revenue	2,043	—	—	—	2,043
Research and product development expenses	4,479	965	—	—	5,444
Selling, general and administrative expenses	105	1,822	1,357	—	3,284
Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(3,171)	381	(839)	57	(3,572)
Segment (loss) profit	(3,171)	381	(631)	322	(3,099)
Total assets	1,061	1,949	731	—	3,741
Capital expenditures	7	—	—	—	7
Depreciation and amortization	496	103	61	—	660

(Dollars in thousands)	New Energy	Test and Measurement Instrumentation	Other	Reconciling Items	Consolidated Totals
Year Ended December 31, 2010					
Product revenue	$ —	$ 7,179	$ —	$ —	$ 7,179
Funded research and development revenue	1,234	—	—	—	1,234
Research and product development expenses	2,896	959	—	—	3,855
Selling, general and administrative expenses	1,950	1,984	1,086	—	5,020

Segment (loss) profit from continuing operations before income taxes, equity in holdings' losses and non controlling interests	(3,639)	886	(639)	—	(3,392)
Segment (loss) profit	(3,639)	886	(643)	1,638	(1,758)
Total assets	639	1,751	1,211	—	3,601
Capital expenditures	—	47	—	—	47
Depreciation and amortization	385	81	15	—	481

The following table presents the details of “Other” segment (loss) profit for each of the 3 months ended December 31:

	2008	2009	2010
	(dollars in thousands)		
Corporate and other (expenses) income:			
Depreciation and amortization	$ (16)	$ (26)	$ (3)
Interest income (expense)	(166)	14	—
Gain (loss) on derivatives	54	89	(16)
Income tax (expense) benefit	(184)	(407)	4
Other expense, net	(77)	305	(155)
Total (expense) income	$ (389)	$ (25)	$ (170)

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

	2008	2009	2010
	(dollars in thousands)		
Corporate and other (expenses) income:			
Depreciation and amortization	$ (70)	$ (61)	$ (15)
Interest income (expense)	(106)	68	—
Gain (loss) on derivatives	655	(29)	(3)
Income tax expense	(2,004)	(208)	(4)
Other expense, net	(863)	(401)	(621)
Total expense	$ (2,388)	$ (631)	$ (643)