

ADVANCED ENERGY INDUSTRIES INC

Form 10-K

February 26, 2010

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2009.

or

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

For the transition period from _____ to _____ .

Commission file number: 000-26966

ADVANCED ENERGY INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of incorporation or
organization)

84-0846841

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

1625 Sharp Point Drive, Fort Collins, CO

(Address of principal executive offices)

80525

(Zip Code)

Registrant's telephone number, including area code: **(970) 221-4670**

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, \$0.001 par value

Securities registered pursuant to section 12(g) of the Act:

Name of each exchange on which registered

NASDAQ Global Select Market

None

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

Yes No

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 No

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 No

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

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

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

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

(Do not check if a smaller reporting company)

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

The aggregate market value of voting and non-voting common stock held by non-affiliates of the registrant was \$296,994,206 as of June 30, 2009, based upon the price at which such common stock was last sold on such date.

42,070,420

(Number of shares of Common Stock outstanding as of February 23, 2010)

DOCUMENTS INCORPORATED BY REFERENCE

Part III of this Annual Report on Form 10-K incorporates information by reference from the registrant's definitive proxy statement for its 2010 Annual Meeting of Stockholders, scheduled to be held on May 4, 2010. Except as expressly incorporated by reference, the registrant's definitive proxy statement shall not be deemed to be a part of this Annual Report on Form 10-K.

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PART I

*Unless the context otherwise requires, as used in this Form 10-K, references to *Advanced Energy*, the Company, we, us or our refer to Advanced Energy Industries, Inc. and its consolidated subsidiaries.*

ITEM 1. BUSINESS

Overview

We design, manufacture, sell and support industrial power conversion products that transform power into various usable forms. Our products enable manufacturing processes that use thin-film deposition for various products, such as semiconductor devices, flat panel displays, solar panels and architectural glass, as well as grid-tie power conversion in the solar market. We also supply gas flow control technology and thermal instrumentation products for control and detection of gases in the thin-film deposition process for these same markets. Our network of global service support centers provides local repair and field service capability in key regions. Our installed base provides a recurring revenue opportunity as we offer repair services, conversions, upgrades and refurbishments to companies using our products.

Our products are used in diverse markets, applications and processes, including the manufacture of capital equipment for semiconductor devices and for other thin film applications including flat panel displays, solar panels, data storage, architectural glass and other industrial product coatings as well as the commercial solar inverter market.

We incorporated in Colorado in 1981 and reincorporated in Delaware in 1995. Our executive offices are located at 1625 Sharp Point Drive, Fort Collins, Colorado 80525, and our telephone number is 970-221-4670.

Products and Services

Our products fall primarily into the categories of Power Conversion, Flow Control Technologies and Thermal Instrumentation. Our products are designed to enable new process technologies, improve productivity and lower the cost of ownership for our customers. We also provide repair and maintenance services for all of our products.

POWER CONVERSION

Our power conversion systems include direct current (DC), pulsed DC mid frequency, and radio frequency (RF) power supplies, matching networks and RF instrumentation. We also have a line of photovoltaic (PV) inverters that offer an advanced, transformerless, grid-tie PV solution for commercial system installations. Our PV inverter is designed to convert DC power from standard solar arrays to high-quality AC grid electricity enabling commercial installations to produce targeted output power levels. Our power conversion systems refine, modify and control the raw electrical power from a utility and convert it into power that may be customized and is predictable and repeatable. Our power conversion systems are primarily used by semiconductor, solar panel and similar thin-film manufacturers including flat panel display, data storage and architectural glass manufacturers.

FLOW CONTROL TECHNOLOGIES

Our flow control technology products include thermal mass flow controllers (MFCs), pressure insensitive MFCs (PI-MFCs), pressure-based MFCs, liquid MFCs, liquid vapor delivery systems and pressure control systems. Our flow control technology products control or monitor the flow of high-purity liquids, liquid vapor and gases encompassing a wide range of input pressures. Our flow control technology products are primarily used in semiconductor, flat panel display and solar module manufacturing. They are also used in other industrial thin-film applications, and the fiber optics and silica industries.

THERMAL INSTRUMENTATION

Our thermal instrumentation products, used primarily in the semiconductor industry, provide thermal management and control solutions for applications in which time-temperature cycles affect productivity and yield. These products are used in rapid thermal processing, chemical vapor deposition and other semiconductor and solar applications requiring non-contact temperature measurement.

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GLOBAL SUPPORT SERVICES

Our global support services group offers local in-warranty and out-of-warranty repair services in the regions in which our customers operate, also providing us with preventive maintenance opportunities. As semiconductor device manufacturers have become increasingly sensitive to the significant costs of system downtime, they have required that suppliers offer comprehensive local repair service and customer support. Our customers require customer support levels to enable them to repair, modify, upgrade and retrofit their equipment to improve yields and adapt new materials or processes. To meet these market requirements, we maintain a worldwide support organization in the United States, China, Japan, Korea, Taiwan, Germany and England. Our services group combines vast field data and years of experience with original equipment manufacturers (OEMs) to improve their feature-sets and statistically target service programs to prevent potential failures or problems before they occur and to extend the life of our customers' tools.

Markets and Customers

MARKETS

The following is a discussion of the major markets for our products. The commercial solar inverter market is subject to seasonality as the first calendar quarter represents the seasonally weak quarter in this market. Our other markets are not subject to seasonality; however, they are cyclical due to sudden changes in customers' manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for customers' products, inventory levels relative to demand and access to affordable capital.

SEMICONDUCTOR CAPITAL EQUIPMENT MARKET. The largest market for our products has been the semiconductor capital equipment industry. These customers incorporate our products into equipment used in semiconductor processing steps that make integrated circuits. Our power conversion systems provide the energy to enable thin-film processes such as deposition and etch. Our flow control technology products control the fluid or gas being delivered to ensure accuracy, repeatability and stability. Our thermal instrumentation products measure the temperature of the process chamber. Precise control over the energy delivered to plasma-based processes enables the production of integrated circuits with reduced feature sizes and increased speed and performance. This market is driven by increasing end market demand for products that include semiconductors in them.

SOLAR PANEL CAPITAL EQUIPMENT MARKET. We sell our products to OEMs and manufacturers of solar cells who use our products to produce thin-films using silicon substrates as well as glass or metal substrates. The majority of solar cell manufacturing currently uses a silicon wafer as the substrate and employs chemical vapor deposition (CVD) thin film processing. The solar cell industry also has developed processes for manufacturing solar cells on non-silicon substrates, such as glass and metal, using thin film processes that also employ CVD tools. Our RF and DC power supply and flow products are designed for use in these CVD and PVD tools. Our products are used in all leading thin film solar cell technologies, including amorphous and microcrystalline silicon, copper indium gallium selenide (CIGS) and cadmium telluride (CdTe). This market is driven by end market installations of solar energy, creating a demand for solar panels.

FLAT PANEL DISPLAY CAPITAL EQUIPMENT MARKET. We sell our products to OEMs and manufacturers of flat panel displays, which use thin film deposition processes similar to those employed in manufacturing semiconductor integrated circuits. Flat panel display technology produces bright, sharp, large, color-rich images on flat screens for products ranging from hand-held devices to laptop and desktop computer monitors and liquid crystal display (LCD) screen televisions. The transition to larger panel sizes and higher display resolution is driving the need for larger processing equipment to reduce manufacturing costs and defects.

DATA STORAGE CAPITAL EQUIPMENT MARKET. We sell products to OEMs and manufacturers of data storage equipment for use in producing a variety of products, including optical disks, such as CDs, DVDs and Blu-Ray; and magnetic storage, such as computer hard discs, including both magnetic media and thin-film heads. These products use a physical vapor deposition (PVD) process to produce optical and magnetic thin-film layers as well as a protective-wear layer. In this market, the trend towards higher recording densities requires thinner and more precise films. The use of equipment incorporating optical and magnetic media to store digital data expands with the growth of the laptop, desktop and network server computer markets and the consumer electronics audio, video, gaming, cell phone and entertainment markets.

ARCHITECTURAL GLASS CAPITAL EQUIPMENT MARKET. We sell our products to OEMs and to producers of Low Emissivity or Low-E architectural glass. This glass is used in commercial and residential buildings to reflect heat and cold through the use of thin films coated directly on the glass which reduces the energy used in the building. The thin film deposition process employs PVD tools which use our DC and mid frequency power products and our flow products. This market is driven by end market demand for glass related to the residential and commercial construction industry.

INDUSTRIAL PRODUCTS CAPITAL EQUIPMENT MARKET. We sell our products to OEMs and manufacturers who use thin film deposition processes to produce products for a variety of industrial markets. Thin films are applied to products in plasma-based

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processes to strengthen and harden surfaces on such diverse products as tools, automotive parts and various other end products. The advanced thin-film production processes allow precise control of various optical and physical properties, including color, transparency and electrical and thermal conductivity. The improved adhesion and high-film quality resulting from plasma-based processing make it the preferred method of applying the thin films.

LARGE COMMERCIAL SOLAR INVERTER MARKET. We sell commercial solar inverters to integrators who integrate our Solaron® inverter into their solar array installations. The Solaron® converts DC power, which is produced by the solar panels in the array, into AC power for consumption on-site or to be sold back through the public utility grid. The large commercial solar inverter market is characterized by installations generating power above 250 kW. This market is driven by large scale commercial and utility grade installations of solar arrays to generate large scale power.

CUSTOMERS

Our products are sold worldwide to approximately 300 OEMs and integrators and directly to more than 1,000 end users. Our ten largest customers accounted for 47% of our sales in 2009, 50% of our sales in 2008 and 61%, of our sales in 2007. We expect that the sale of products to our largest customers will continue to account for a significant percentage of our sales for the foreseeable future.

Applied Materials Inc., our largest customer, accounted for 20% of our sales in 2009, 21% of our sales in 2008 and 29% of our sales in 2007. No other customer accounted for greater than 10% of our sales in 2009, 2008 or 2007.

Backlog

Our backlog was \$66 million at December 31, 2009, a 132% increase from \$29 million at December 31, 2008. This increase was the result of sharp growth in demand, particularly from the semiconductor capital equipment market, in the second half of 2009 generally and in the fourth quarter of 2009 specifically. Backlog includes firm orders scheduled to ship in the next twelve months. In addition, we supply our major OEMs under just-in-time agreements that are also included in backlog. Customers may delay delivery of products or cancel orders prior to shipment, subject to possible cancellation penalties. Delays in delivery schedules and/or a reduction of backlog during any particular period could cause a shortfall in sales and have a material adverse effect on our business and results of operations.

Marketing, Sales and Distribution

We sell our products primarily through direct sales personnel to customers in the United States, Europe and Asia. Our sales personnel are located in the United States, China, England, Germany, Japan, South Korea, and Taiwan. In addition to our direct sales force, we also have sales representatives and distributors globally that support our selling efforts. We maintain customer service offices at many of the locations listed above, as well as other sites near our customer locations as we believe that customer service and technical support are important competitive factors and are essential to building and maintaining close, long-term relationships with our customers.

The following table represents our net sales by geographic region for the years ended 2009, 2008 and 2007:

	Years Ended December 31,					
	2009		2008		2007	
	(In thousands)					
Asia	\$ 82,754	45%	\$ 140,505	43%	\$ 135,383	35%
United States	78,740	42%	137,966	42%	207,265	54%
Europe	24,901	13%	50,447	15%	42,051	11%
	\$ 186,395		\$ 328,918		\$ 384,699	

See Item 1A. Risk Factors beginning on page 8 for a discussion of certain risks related to our foreign operations.

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Manufacturing

The majority of our manufacturing is performed in Shenzhen, China, where we produce our high-volume products. The remainder of our manufacturing locations are in Fort Collins, Colorado; Hachioji, Japan; and Vancouver, Washington and perform low-volume manufacturing, service and support.

Manufacturing requires raw materials, including a wide variety of mechanical and electrical components, to be manufactured to our specifications. We use numerous companies, including contract manufacturers, to supply parts for the manufacture and support of our products. Although we make reasonable efforts to assure that parts are available from multiple qualified suppliers, this is not always possible. Accordingly, some key parts may be obtained from only a sole supplier or a limited group of suppliers. We seek to reduce costs and to lower the risks of production and service interruptions, as well as shortages of key parts, by: (1) selecting and qualifying alternate suppliers for key parts; (2) monitoring the financial condition of key suppliers; (3) maintaining appropriate inventories of key parts; (4) qualifying new parts on a timely basis; and (5) locating certain manufacturing operations in areas that are closer to suppliers and customers.

Intellectual Property and IP Realignment

As part of our ongoing effort to improve the efficiency within our business, in the second half of 2009 we reviewed our operations that support Asia generally and China in particular. On December 31, 2009, we transferred the economic rights to our patents and know-how from other affiliates throughout the world, including the parent company, streamlined our intercompany agreements between company affiliates and, accordingly, restructured our order processing transaction flow. We subsequently reconfigured our legal entity structure to realign our Chinese manufacturing operations with the intellectual property utilized in such manufacturing. The result of this structure will improve efficiency, streamline processes and properly align intellectual property (and the related expenses) with the manufacturing operations undertaken in China. In addition, we believe we will see worldwide tax savings related to the new structure over time resulting in an overall lower effective rate on consolidated earnings.

We seek patent protection for inventions governing new products or technologies as part of our ongoing research and development. We currently hold 94 United States patents and 63 foreign-issued patents, and have over 185 patent applications pending in the United States, Europe and Asia. Generally, our efforts to obtain international patents have been concentrated in the industrialized countries within Europe and Asia, because there are other manufacturers and developers of power conversion and control systems in those countries as well as customers for those systems.

As described above, much of our intellectual property was realigned with our Chinese manufacturing operations. This realignment was accomplished through various license agreements and did not involve any assignment of patents. Accordingly, our patents are still registered in countries with more developed intellectual property laws.

Litigation may from time to time be necessary to enforce patents issued to us, to protect trade secrets or know-how owned by us, to defend us against claimed infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. See Item 1A. Risk Factors We are highly dependent on our intellectual property.

Competition

The markets we serve are highly competitive and characterized by ongoing technological development and changing customer requirements. Significant competitive factors in our markets include product performance, compatibility with adjacent products, price, quality and reliability and level of customer service and support. The markets in which we compete have seen an increase in global competition, especially from Asian and European-based component suppliers. We encounter substantial competition from foreign and domestic companies for each of our product lines. Some of our competitors have greater financial and other resources than us. In some cases, competitors are smaller than we are, but well established in specific product niches. MKS Instruments, Comdel, Daihen Kyosan, Hüttinger Electronics, SMA America, Inc., Schneider Electronics, Siemens and SatCon offer products that compete with our power conversion products. MKS Instruments, STEC and Brooks Instruments offer products that compete with our product line of mass flow controllers.

Our ability to continue to compete successfully in these markets depends on our ability to make timely introductions of product enhancements and new products. We expect our competitors will continue to improve the design and performance of their products and to introduce new products with competitive performance characteristics. We believe that we currently compete effectively with respect to these factors, although we cannot assure that we will

be able to compete effectively in the future.

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Research and Development

The market for our products is characterized by ongoing technological changes. We believe that continued and timely development of new highly differentiated products and enhancements to existing products to support OEM requirements is necessary for us to maintain a competitive position in the markets we serve. Accordingly, we continue to devote a significant portion of our personnel and financial resources to research and development projects and seek to maintain close relationships with our customers and other industry leaders in order to remain responsive to their product requirements now and in the future. Research and development expenses were \$43.3 million in 2009, \$55.0 million in 2008, and \$50.4 million in 2007, representing 23.2% of our sales in 2009, 16.7% of our sales in 2008, and 13.1% of our sales in 2007.

Number of Employees

As of December 31, 2009, we had a total of 1,316 employees. There is no union representation of our employees, notwithstanding statutory organization rights applicable to our employees in China, and we have never experienced an involuntary work stoppage. We consider our employee relations to be good.

Effect of Environmental Laws

We are subject to federal, state and local environmental laws and regulations, as well as the environmental laws and regulations of the foreign federal and local jurisdictions in which we have manufacturing facilities. We believe we are in material compliance with all such laws and regulations.

Compliance with federal, state and local laws and regulations has not had, and is not expected to have, an adverse effect on our capital expenditures, competitive position, financial condition or results of operations.

Website Access

Our website address is www.advancedenergy.com. We make available, free of charge on our website, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to these reports as soon as reasonably practicable after filing such reports with, or furnishing them to, the Securities and Exchange Commission (SEC). Such reports are also available at www.sec.gov. Information contained on our website is not incorporated by reference in, or otherwise part of, this Annual Report on Form 10-K or any of our other filings with the SEC.

Special Note Regarding Forward-Looking Statements

This Annual Report on Form 10-K includes or incorporates by reference forward-looking statements within the meanings of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. All statements contained or incorporated by reference in this Annual Report on Form 10-K, other than statements of historical fact, are forward-looking statements. For example, statements relating to our beliefs, expectations, plans and projections are forward-looking statements as are statements that specified actions, conditions or circumstances will continue or change. Forward-looking statements involve risks and uncertainties. In some cases, forward-looking statements can be identified by the inclusion of words such as believe, expect, plan, anticipate, estimate and similar words.

Some of the forward-looking statements in this Annual Report on Form 10-K are or reflect our expectations or projections relating to:

our future revenues;

our future gross profit;

reducing our operating breakeven point;

market acceptance of our products;

the fair value of our assets and financial instruments;

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research and development expenses;

selling, general and administrative expenses;

sufficiency and availability of capital resources;

capital expenditures;

restructuring activities and expenses; and

general global economic conditions.

Our actual results could differ materially from those projected or assumed in our forward-looking statements, because forward-looking statements by their nature are subject to risks and uncertainties. Factors that could contribute to these differences or prove our forward-looking statements, by hindsight, to be overly optimistic or unachievable include the factors described in Item 1A. Risk Factors beginning on page 8. Other factors might also contribute to the differences between our forward-looking statements and our actual results. We assume no obligation to update any forward-looking statement or the reasons why our actual results might differ.

Executive Officers of the Registrant

Our executive officers, their positions and their ages as of December 31, 2009 are as follows:

Dr. Hans Georg Betz, 63, has been our Chief Executive Officer since August 2005 and has been a member of our Board of Directors since July 2004. Between August 2005 and December 2009, Mr. Betz also served as our President. From August 2001 until he became our Chief Executive Officer and President, Dr. Betz served as Chief Executive Officer of West Steag Partners GmbH, a German-based venture capital company focused on the high-technology industry. In his over 30-year career in the electronics industry, Dr. Betz also has served as Chief Executive Officer of STEAG Electronic Systems AG and a Managing Director at Leybold AG. Dr. Betz currently serves as a director of Mattson Technology, Inc., a publicly held supplier of advanced process equipment used to manufacture semiconductors, and serves as a member of its compensation committee.

Yuval Wasserman, 55, joined Advanced Energy in August 2007 as Executive Vice President, Sales, Marketing and Services. In April 2009, Mr. Wasserman was promoted to Executive Vice President and Chief Operating Officer, and in January 2010 he was promoted to President and Chief Operating Officer. Immediately prior to joining Advanced Energy, from May 2002 to August 2007 Mr. Wasserman served as the President and CEO of Tevet Process Control Technologies, Inc., where he led the development and growth of the company. Prior to that, he held senior executive and general management positions at Boxer Cross (a metrology company acquired by Applied Materials, Inc.), Fusion Systems (a plasma strip company that is a division of Axcelis Technologies, Inc.), and AG Associates (a semiconductor capital equipment company focused on rapid thermal processing). Mr. Wasserman started his career at National Semiconductor, where he held various process engineering and management positions.

Lawrence D. Firestone, 51, joined Advanced Energy in August 2006 as Executive Vice President and Chief Financial Officer. From July 1999 to August 2006, Mr. Firestone was Senior Vice President and Chief Financial Officer at Applied Films Corporation, a thin-film deposition equipment provider based in Longmont, Colorado. Prior to joining Applied Films, Mr. Firestone served as Vice President and Chief Operating Officer of Avalanche Industries, an electronics manufacturing services company. Earlier, he held finance and operations positions at Woolson Spice and Coffee Company, TechniStar Corporation and Colorado Manufacturing Technology, Inc. in addition to performing consulting work for several early-stage technology companies.

ITEM 1A. RISK FACTORS

Raw material, part, component and subassembly shortages, exacerbated by our dependence on sole and limited source suppliers, could affect our ability to manufacture products and systems and could delay our shipments.

Our business depends on our ability to manufacture products that meet the rapidly changing demands of our customers. Our ability to manufacture our products timely depends in part on the timely delivery of raw materials, parts, components and subassemblies from

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suppliers. We rely on sole and limited source suppliers for some of our raw materials, parts, components and subassemblies that are critical to the manufacturing of our products. This reliance involves several risks, including the following:

inability to obtain an adequate supply of required parts, components or subassemblies;

supply shortages, if a sole or limited source provider ceases operations;

the need to fund the operating losses of a sole or limited source provider;

reduced control over pricing and timing of delivery of raw materials and parts, components or subassemblies;

need to qualify alternative suppliers which could be time consuming and lead to delays in, or prevention of delivery of products to our customers, as well as increased costs; and

inability of our suppliers to develop technologically advanced products to support our growth and development of new products.

If we are unable to qualify additional suppliers and manage relationships with our existing and future suppliers successfully, if our suppliers experience financial difficulties including bankruptcy or if our suppliers cannot meet our performance or quality specifications or timing requirements, we may experience shortages, delays or increased costs of raw materials, parts, components or subassemblies. This in turn could limit or prevent our ability to manufacture and ship our products, which could materially and adversely affect our relationships with our current and prospective customers and our business, financial condition and results of operations. Some of our sole or limited source suppliers have given us notice that they are ending supply of critical parts, components and subassemblies that are required for us to deliver product. In those cases, we have been required to make last time buys of such supplies in advance of product demand from our customers. If we cannot qualify alternative suppliers before these end-of life supplies are utilized in our products, we may be unable to deliver further product to our customers. To mitigate the risk of not having a supply of critical parts, components and subassemblies for our products, we have pro-actively made additional purchases which we believe addresses such risk.

Our orders of raw materials, parts, components and subassemblies are based upon quarterly demand forecasts.

We place orders with many of our suppliers based upon our customers' quarterly forecasts. These forecasts are based upon our customers' expectations as to demand for our products. As the quarter progresses, such demand can change rapidly or we may realize that our customers' expectations were overly optimistic, especially during a downturn in the industry and other adverse economic conditions. These orders cannot always be amended in response. In addition, in order to assure availability of certain components or to obtain priority pricing, we have entered into contracts with some of our suppliers that require us to purchase a specified amount of components and subassemblies each quarter, even if we are not able to use such components or subassemblies. Moreover, we have obligations to some of our customers to hold a minimum amount of finished goods in inventory, in order to fulfill just in time orders, regardless of whether the customers expect to place such orders. We currently have firm purchase commitments and agreements with various suppliers to ensure the availability of components. Our obligation to our suppliers at December 31, 2009 under these purchase commitments was \$32.7 million. In 2009, we negotiated reductions in the purchase commitments with some of our suppliers to address the severe decline in our need for such raw materials, parts, components and subassemblies. As the markets we serve recover from the economic downturn, particularly the semiconductor capital equipment market, we may be unable to successfully procure parts quickly enough to meet customer demand for our products, which can have a material adverse effect on our revenue and results of operations.

We are exposed to risks associated with the ongoing financial crisis and weakening global economy.

Our business depends on the expansion of manufacturing capacity in our end markets and the installation base for the products we sell. The recent severe tightening of the credit markets, turmoil in the financial markets, and weakening global economy are contributing to slowdowns in the industries in which we operate. These slowdowns could worsen if the current economic conditions are prolonged or deteriorate further. Our markets depend largely on

consumer spending and economic uncertainty exacerbates negative trends in consumer spending and may cause our customers to push out, cancel, or refrain from placing equipment orders.

Difficulties in obtaining capital and deteriorating market conditions may also lead to the inability of some customers to obtain affordable financing, resulting in a reduction of our sales and greater instances of nonpayment. These conditions may similarly affect our key suppliers, which could affect their ability to deliver parts and result in delays for our products. Further, these conditions and

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uncertainty about future economic conditions make it challenging for us to forecast our operating results and evaluate the risks that may affect our business, financial condition and results of operations. A significant percentage of our expenses are relatively fixed and based in part on expectations of future net sales. If a sudden decrease in demand for our products from one or more customers were to occur, the inability to adjust spending quickly enough to compensate for any shortfall would magnify the adverse impact of a shortfall in net sales on our results of operations.

The industries in which we compete are volatile and unpredictable.

As a supplier to the global semiconductor, flat panel display, solar and related industries, we are subject to business cycles, the timing, length and volatility of which can be difficult to predict. These industries historically have been cyclical due to sudden changes in customers' manufacturing capacity requirements and spending, which depend in part on capacity utilization, demand for customers' products, inventory levels relative to demand, and access to affordable capital. These changes have affected the timing and amounts of customers' purchases and investments in technology, and continue to affect our orders, net sales, operating expenses and net income. In addition, we may not be able to respond adequately or quickly to the declining demand by reducing our costs. We may be required to record significant reserves for excess and obsolete inventory as demand for our products changes.

To meet rapidly changing demand in each of the industries we serve, we must effectively manage our resources and production capacity. During periods of decreasing demand for our products, we must be able to appropriately align our cost structure with prevailing market conditions; effectively manage our supply chain; and motivate and retain key employees. During periods of increasing demand, we must have sufficient manufacturing capacity and inventory to meet customer demand; effectively manage our supply chain; and attract, retain and motivate a sufficient number of qualified individuals. If we are not able to timely and appropriately adapt to changes in our business environment, our business, financial condition or results of operations may be materially and adversely affected.

Reduced product demand in the semiconductor equipment industry has a negative impact on our results of operations.

Our business is affected by the capital equipment expenditures of semiconductor manufacturers, which in turn is affected by the current and anticipated market demand for integrated circuits and products using integrated circuits. The semiconductor industry is cyclical in nature and historically experiences periodic downturns. Business conditions historically have changed rapidly and unpredictably.

Fluctuating levels of investment by semiconductor manufacturers could continue to materially affect our revenues and operating results. Where appropriate, we will attempt to respond to these fluctuations with cost management programs aimed at aligning our expenditures with anticipated revenue streams, which sometimes result in restructuring charges. Even during periods of reduced revenues, we must continue to invest in research and development and maintain extensive ongoing worldwide customer service and support capabilities to remain competitive, which may have a temporary adverse effect on our results of operations.

We are exposed to risks as a result of ongoing changes specific to the solar industry.

An increasing portion of our business is in the emerging solar market, which, in addition to the general industry changes described above in the risk factor ***The industries in which we compete are volatile and unpredictable***, is also characterized by ongoing changes particular to the solar industry. Our business is subject to changes in technology or demand for solar products arising from, among other things, adoption of our products by our customers, compatibility of our technology with our customers' products, customers' and end-users' access to affordable financial capital, the cost and performance of solar technology compared to other energy sources, the adequacy of or changes in government energy policies, including the availability and amount of government incentives for solar power, and the extent of investment or participation in solar by utilities or other companies that generate, transmit or distribute power to end users.

If we do not successfully manage the risks resulting from these ongoing changes occurring in the solar industry, we may miss out on substantial opportunities for revenue and our business, financial condition and results of operations could be materially and adversely affected.

We might make substantial capital expenditures and commitments to meet anticipated demand for our solar inverters.

We have invested and will continue to invest significant human and financial resources in the development, marketing and sale of our Solaron® solar inverters. To increase our manufacturing capacity for our Solaron® solar inverters in order to meet anticipated demand, we have purchased equipment, leased new facilities and made other capital expenditures and commitments. These additional

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expenditures and commitments have increased, and may continue to increase our overhead expenses during a time when our operations are not fully absorbing current overhead expenses. The impact could lower gross margins until such time that revenue related to sale of Solarons® can fully absorb overhead expenses.

We have transferred and continue to transfer the production of substantially all of our product lines to our manufacturing facility in Shenzhen, China, and may experience unforeseen difficulties and challenges with these operations.

We have invested and will continue to invest significant human and financial resources to utilize our manufacturing facility in Shenzhen, China. These investments, such as the transition of legacy product lines, are made with the goal of reducing our overall global production costs by increasing our workforce in China and correspondingly decreasing our workforce in the United States. We cannot always predict with certainty the impact that these transitions will have on our operating results. We may incur unforeseen costs with respect to this facility, product transitions and the related workforce mix changes that could have an adverse effect on our results of operations.

Our operations in China are subject to significant political and economic uncertainties over which we have little or no control and may be unable to alter our business practice in time to avoid reductions in revenues.

A significant portion of our operations outside the United States are located in China, which exposes us to risks, such as exchange controls and currency restrictions, changes in local economic conditions, changes in Chinese laws and regulations, possible expropriation or other Chinese government actions, and unsettled political conditions. These factors may have a material adverse effect on our operations or on our business, results of operations and financial condition.

China's economy differs from the economies of most developed countries in many respects, including with respect to the amount of government involvement, level of development, growth rate, control of foreign exchange and allocation of resources. While the People's Republic of China economy has experienced significant growth in the past 20 years, growth has been uneven across different regions and among various economic sectors of China. The People's Republic of China government has implemented various measures to encourage economic development and guide the allocation of resources. Some of these measures benefit the overall People's Republic of China economy, but may also have a negative effect on us. For example, our financial condition and results of operations may be adversely affected by government control over capital investments or changes in tax regulations that are applicable to us.

We transitioned a significant amount of our supply base to Asian suppliers.

We transitioned the purchasing of a substantial portion of components for our products, and continue to consider transitioning additional purchasing, to Asian suppliers to lower our materials costs and shipping expenses. These components might require us to incur higher than anticipated testing or repairing costs, which would have an adverse effect on our operating results. Customers who have strict and extensive qualification requirements might not accept our products if these lower-cost components do not meet their requirements. A delay or refusal by our customers to accept such products, as well as an inability of our suppliers to meet our purchasing requirements, might require us to purchase higher-priced components from our existing suppliers or might cause us to lose sales to these customers, either of which could lead to decreased revenue and gross margins and have an adverse effect on our results of operations.

Changes in tax rules, tax liabilities, or utilization of our deferred tax assets could materially affect our results.

Our future annual and quarterly tax rates could be affected by numerous factors, including changes in the applicable tax laws, composition of earnings in countries with differing tax rates or our valuation and utilization of deferred tax assets and liabilities. In 2008 and 2009, there were adverse changes in the business climate and in the markets in which we operate and as a result we recorded a valuation allowance against our deferred tax assets of \$40.3 million. In the second half of 2009, we reconfigured our legal entity structure to realign our Chinese manufacturing operations with the intellectual property utilized in such manufacturing. On December 31, 2009, we transferred the economic rights to our patents and know-how from other affiliates throughout the world, including the parent company. As a result of this realignment, we generated \$84.4 million of taxable income in the United States and Japan and, thus, reversed a portion of our valuation allowance and will utilize previously reserved deferred tax assets upon filing of our 2009 tax return. In general, we are subject to regular examination of our income tax returns

by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates and reserves against deferred tax assets and uncertain tax positions are reasonable, including those relied upon in the execution of our entity restructuring, there can be no

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assurance that any final determination will not be materially different from the treatment reflected in our current or historical income tax provisions and accruals, which could materially and adversely affect our results of operations.

A significant portion of our sales and accounts receivable are concentrated among a few customers.

Our ten largest customers accounted for 47% of our sales in 2009, 50% of our sales in 2008, and 61% of our sales in 2007. Applied Materials Inc., our largest customer, accounted for 20% of our sales in 2009, 21% of our sales in 2008, and 29% of our sales in 2007. No other single customer accounted for more than 10% of our sales during 2009, 2008 or 2007. If we were to lose any of our significant customers or suffer a material reduction in their purchase orders, revenue could decline and our business, financial condition and results of operations could be materially and adversely affected.

Market pressures may reduce or eliminate our profitability.

Our customers continually exert pressure on us to reduce our prices and extend payment terms. Given the nature of our customer base and the highly competitive markets in which we compete, we may be required to reduce our prices or extend payment terms to remain competitive. We may not be able to reduce our expenses in an amount sufficient to offset potential margin declines.

We generally have no long-term contracts with our customers requiring them to purchase any specified quantities from us.

Our sales are primarily made on a purchase order basis, and we generally have no long-term purchase commitments from our customers, which is typical in the industries we serve. As a result, we are limited in our ability to predict the level of future sales or commitments from our current customers, which may diminish our ability to allocate labor, materials and equipment in the manufacturing process effectively. In addition, we may accumulate inventory in anticipation of sales that do not materialize, resulting in excess and obsolete inventory write-offs.

If we are unable to adjust our business strategy successfully for some of our product lines to reflect the increasing price sensitivity on the part of our customers, our business and financial condition could be harmed.

Our business strategy for many of our product lines has been focused on product performance and technology innovation to provide enhanced efficiencies and productivity. As a result of recent economic conditions and changes in various markets that we serve, our customers have experienced significant cost pressures and, as a result, we have observed increased price sensitivity on the part of our customers. If competition against any of our product lines should come to focus solely on price rather than on product performance and technology innovation, we will need to adjust our business strategy and product offerings accordingly and, if we are unable to do so, our business, financial condition and results of operations could be materially and adversely affected.

The markets in which we operate are highly competitive.

We face substantial competition, primarily from established companies, some of which have greater financial, marketing and technical resources than we do. We expect our competitors will continue to develop new products in direct competition with ours, improve the design and performance of their products and introduce new products with enhanced performance characteristics.

To remain competitive, we must improve and expand our products and product offerings. In addition, we may need to maintain a high level of investment in research and development and expand our sales and marketing efforts, particularly outside of the United States. We might not be able to make the technological advances and investments necessary to remain competitive. If we were unable to improve and expand our products and product offerings, our business, financial condition and results of operations could be materially and adversely affected.

Our competitive position could be weakened if we are unable to convince end users to specify that our products be used in the equipment sold by our customers.

The end users in our markets may direct equipment manufacturers to use a specified supplier's product in their equipment at a particular facility. This occurs with frequency because our products are critical in manufacturing process control for thin-film applications. Our success therefore, depends in part on our ability to have end users specify that our products be used at their facilities. In addition, we may encounter difficulties in changing established relationships of competitors that already have a large installed base of products within such facilities.

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Our products may suffer from defects or errors leading to damage or warranty claims.

Our products use complex system designs and components that may contain errors or defects, particularly when we incorporate new technology into our products or release new versions. If any of our products are defective, we might be required to redesign or recall those products or pay damages or warranty claims and suffer significant harm to our reputation. We accrue a warranty reserve for estimated costs to provide warranty services, including the cost of technical support, product repairs, and product replacement for units that cannot be repaired. Our estimate of costs to fulfill our warranty obligations is based on historical experience and expectation of future conditions. To the extent we experience increased warranty claim activity or increased costs associated with servicing those claims, our warranty accrual will increase, resulting in decreased gross profit.

We must achieve design wins to retain our existing customers and to obtain new customers, although design wins achieved do not necessarily result in substantial sales.

The constantly changing nature of technology in the markets we serve causes equipment manufacturers to continually design new systems. We must work with these manufacturers early in their design cycles to modify our equipment or design new equipment to meet the requirements of their new systems. Manufacturers typically choose one or two vendors to provide the components for use with the early system shipments. Selection as one of these vendors is called a design win. It is critical that we achieve these design wins in order to retain existing customers and to obtain new customers.

We believe that equipment manufacturers often select their suppliers based on factors including long-term relationships and end user demand. Accordingly, we may have difficulty achieving design wins from equipment manufacturers who are not currently our customers. In addition, we must compete for design wins for new systems and products of our existing customers, including those with whom we have had long-term relationships. Our efforts to achieve design wins are time consuming and expensive, and may not be successful. If we are not successful in achieving design wins, or if we do achieve design win but our customers' systems that utilize our products are not successful, our business, financial condition and results of operations could be materially and adversely impacted.

Once a manufacturer chooses a component for use in a particular product, it is likely to retain that component for the life of that product. Our sales and growth could experience material and prolonged adverse effects if we fail to achieve design wins. However, design wins do not always result in substantial sales, as sales of our products are dependent upon our customers' sales of their products.

We are subject to risks inherent in international operations.

Sales to our customers outside the United States were approximately 57% of our total sales in 2009, 58% in 2008, and 46% in 2007. Our success competing in international markets is subject to our ability to manage various risks and difficulties, including, but not limited to:

our ability to effectively manage our employees at remote locations who are operating in different business environments from the United States;

our ability to develop relationships with suppliers and other local businesses;

compliance with product safety requirements and standards that are different from those of the United States;

variations and changes in laws applicable to our operations in different jurisdictions, including enforceability of intellectual property and contract rights;

trade restrictions, political instability, disruptions in financial markets and deterioration of economic conditions;

customs regulations and the import and export of goods;

the ability to provide sufficient levels of technical support in different locations;

our ability to obtain business licenses that may be needed in international locations to support expanded operations;

timely collecting accounts receivable from foreign customers; and

changes in tariffs, taxes and foreign currency exchange rates.

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Our ability to implement our business strategies, maintain market share and compete successfully in international markets will be compromised if we are unable to manage these and other international risks successfully.

We are subject to risks related to holding financial instruments in foreign countries.

A majority of our cash, cash equivalents and marketable securities have historically been held in accounts in Japan and Germany. During the second quarter of 2009, we transferred to accounts in the United States approximately \$46.2 million in cash from Japan. We are, however, still holding \$46.8 million of cash, cash equivalents and marketable securities in Germany. Repatriation of such cash is subject to limitations and may be subject to significant taxation. We cannot be certain that we will be able to repatriate such cash on favorable terms or in a timely manner. If we incur losses in our operations and need the cash held in these international accounts, but are unable to repatriate such cash in a timely manner, we may be prevented from taking advantage of business opportunities that arise or from executing some of our business plans, either of which could cause our business, financial condition or results of operations to be materially and adversely affected.

Unfavorable currency exchange rate fluctuations may lead to lower operating margins, or may cause us to raise prices, which could result in reduced sales.

Currency exchange rate fluctuations could have an adverse effect on our sales and results of operations and we could experience losses with respect to forward exchange contracts into which we may enter. Unfavorable currency fluctuations could require us to increase prices to foreign customers, which could result in lower net sales by us to such customers. Alternatively, if we do not adjust the prices for our products in response to unfavorable currency fluctuations, our results of operations could be materially and adversely affected. In addition, most sales made by our foreign subsidiaries are denominated in the currency of the country in which these products are sold and the currency they receive in payment for such sales could be less valuable at the time of receipt as a result of exchange rate fluctuations. From time to time, we enter into forward exchange contracts and local currency purchased options to reduce currency exposure arising from intercompany sales of inventory. However, we cannot be certain that our efforts will be adequate to protect us against significant currency fluctuations or that such efforts will not expose us to additional exchange rate risks, which could adversely affect our results of operations.

Changes in the value of the Chinese yuan could impact the cost of our operation in Shenzhen, China.

The Chinese government is continually pressured by its trading partners to allow its currency to float in a manner similar to other major currencies. Any change in the value of the Chinese yuan may impact our ability to control the cost of our products in the world market. Specifically, the decision by the Chinese government to allow the yuan to begin to float against the United States dollar could significantly increase the labor and other costs incurred in the operation of our Shenzhen facility and the cost of raw materials, parts, components and subassemblies that we source in China, thereby having a material and adverse effect on our financial condition and results of operations.

We are highly dependent on our intellectual property.

Our success depends significantly on our proprietary technology. We attempt to protect our intellectual property rights through patents and non-disclosure agreements; however, we might not be able to protect our technology, and competitors might be able to develop similar technology independently. In addition, the laws of some foreign countries might not afford our intellectual property the same protections as do the laws of the United States. Our intellectual property is not protected by patents in several countries in which we do business, and we have limited patent protection in other countries, including China. The cost of applying for patents in foreign countries and translating the applications into foreign languages requires us to select carefully the inventions for which we apply for patent protection and the countries in which we seek such protection. Generally, our efforts to obtain international patents have been concentrated in the European Union and certain industrialized countries in Asia, including Korea, Japan and Taiwan. If we are unable to protect our intellectual property successfully, our business, financial condition and results of operations could be materially and adversely affected.

China commercial law is relatively undeveloped compared to the commercial law in the United States. Limited protection of intellectual property is available under Chinese law. Consequently, manufacturing our products in China may subject us to an increased risk that unauthorized parties may attempt to copy our products or otherwise obtain or use our intellectual property. We cannot give assurance that we will be able to protect our intellectual property rights effectively or have adequate legal recourse in the event that we encounter infringements of our intellectual property in China.

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We have been, and in the future may again be, involved in litigation. Litigation is costly and could result in further restrictions on our ability to conduct business or an inability to prevent others from using technology or make use of market relationships we have developed.

Litigation may be necessary to enforce our commercial or property rights, to defend ourselves against claimed violations of such rights, or to protect our interests in regulatory disputes or similar matters. Litigation often requires substantial management time and attention, as well as financial and other resources, including:

substantial costs in the form of legal fees, fines and royalty payments;

restrictions on our ability to sell certain products or in certain markets;

an inability to prevent others from using technology we have developed; and

a need to redesign products or seek alternative marketing strategies.

Any of these events could have a significant adverse effect on our business, financial condition and results of operations.

Funds associated with auction rate securities that we have traditionally held as short-term investments may not be liquid or readily available.

Our investment securities include auction rate securities (ARS) that are not available to convert to cash until June 30, 2010. In November 2008, we executed a non-transferrable auction rate securities rights agreement (the Put Agreement) with a financial institution that provides us with the ability to sell certain of our ARS to a financial institution, at our sole discretion, and obligates the financial institution to purchase such ARS, at par during the period of June 30, 2010 through July 2, 2012. Our ARS holdings to which the Put Agreement relates have a cost basis of approximately \$21.7 million and a fair value of approximately \$18.2 million at December 31, 2009. \$19.7 million of the par value of ARS are in student loan securities and the remaining \$2.0 million are in municipal securities. Additionally, the Put Agreement had a fair value of \$3.2 million at December 31, 2009. The benefits of the Put Agreement are subject to the continued performance by the financial institution of its obligations under the Put Agreement.

We will not be able to utilize the Put Agreement to liquidate our ARS before June 30, 2010. Pursuant to the Put Agreement, as of June 2, 2009, we entered into a Credit Line Agreement with UBS Bank. The Credit Line Agreement provides us with an uncommitted, demand revolving line of credit (an intended no net cost loan) of approximately \$16.3 million that is secured by our ARS.

The lack of liquidity associated with these investments may require us to borrow against the no net cost loan or repatriate cash from international locations at a significant cost. In light of current economic conditions and other factors, we cannot be certain that we will be able to borrow against these securities or continue to repatriate cash, on favorable terms or at all. If we are unable to do so, our available cash may be reduced until some or all of our ARS can be liquidated. The lack of available cash may prevent us from taking advantage of business opportunities that arise and may prevent us from executing some of our business plans, either of which could cause our business, financial condition or results of operations to be materially and adversely affected.

Our intangible assets may become impaired.

We currently have \$6.0 million in intangible assets. We periodically review the estimated useful lives of our identifiable intangible assets, taking into consideration any events or circumstances that might result in either a diminished fair value or revised useful life. The events and circumstances include significant changes in the business climate, legal factors, operating performance indicators and competition. Any impairment or revised useful life could have a material and adverse effect on our financial position and results of operations, and could harm the trading price of our common stock.

We are subject to numerous governmental regulations.

We are subject to federal, state, local and foreign regulations, including environmental regulations and regulations relating to the design and operation of our products and control systems. We might incur significant costs as we seek to ensure that our products meet safety and emissions standards, many of which vary across the states and countries in

which our products are used. In the past, we have invested significant resources to redesign our products to comply with these directives. Compliance with future regulations, directives and standards could require us to modify or redesign some products, make capital expenditures or incur substantial costs. If we do not comply with current or future regulations, directives and standards:

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we could be subject to fines;

our production or shipments could be suspended; and

we could be prohibited from offering particular products in specified markets.

If we were unable to comply with current or future regulations, directives and standards our business, financial condition and results of operations could be materially and adversely affected.

The market price of our common stock has fluctuated and may continue to fluctuate for reasons over which we have no control.

The stock market has from time to time experienced, and is likely to continue to experience, extreme price and volume fluctuations. Prices of securities of technology companies have been especially volatile and have often fluctuated for reasons that are unrelated to their operating performance. In the past, companies that have experienced volatility in the market price of their stock have been the subject of securities class action litigation. If we were the subject of securities class action litigation, it could result in substantial costs and a diversion of our management's attention and resources.

Our Chairman of the Board owns a significant percentage of our outstanding common stock, which could enable him to influence our business and affairs, and future sales of our common stock by our Chairman of the Board may negatively affect the market price of our common stock.

Douglas S. Schatz, our Chairman of the Board, beneficially owned approximately 15% of our outstanding common stock as of February 23, 2010. This stockholding gives Mr. Schatz significant voting power and influence. Depending on the number of shares that abstain or otherwise are not voted on a particular matter, Mr. Schatz may be able to elect all of the members of our board of directors and to influence our business affairs for the foreseeable future in a manner with which our other stockholders may not agree. In addition, the sale of a substantial amount of the shares beneficially owned by him could negatively affect the market price of our common stock. The trust through which Mr. Schatz beneficially owns a significant number of shares has entered into a written trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, which, as of November 3, 2009, provided for the sale of up to 1,636,364 shares of common stock if certain price targets and other conditions are met. On May 8, 2009, the trust entered into a series of variable prepaid forward contracts with a securities broker, in order to monetize 1,000,000 shares of common stock of the Company. Upon fulfillment of each of 6 orders under the variable prepaid forward contracts, the trust received a cash payment equal to approximately 84% of the market value of the shares subject to such orders and pledged such shares to the securities broker. Pending settlement of such contracts, between May 11, 2010 and December 13, 2010, the trust will retain all of its voting rights in respect of the pledged shares.

The loss of any of our key personnel could significantly harm our results of operations and competitive position.

Our success depends to a significant degree upon the continuing contributions of our key management, technical, marketing and sales employees. There can be no assurance that we will be successful in retaining our key employees or that we can attract or retain additional skilled personnel as required. Many of the stock options held by our employees have exercise prices that are higher than the current trading price of our common stock, and these underwater options do not serve their purpose as incentives for our employees to remain with the Company. Failure to retain or attract key personnel could significantly harm our results of operations and competitive position.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

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Information concerning our principal properties at December 31, 2009 is set forth below:

Location	Type	Principal Use	Square Footage	Ownership
Fort Collins, CO	Office, plant	Headquarters, research and development, manufacturing, distribution, sales and service	220,411	Leased
Shenzhen, China	Office, plant	Manufacturing and distribution	165,814	Leased
Hachioji, Japan	Office, plant	Research and development, manufacturing, distribution, sales and service	46,400	Owned
San Jose, CA	Office	Distribution, sales and service	19,800	Leased
Vancouver, WA	Office, plant	Research and development, manufacturing, distribution, sales and service	19,611	Leased
Filderstadt, Germany	Office	Distribution, sales and service	15,620	Leased
Sungam City, South Korea	Office	Distribution, sales and service	14,085	Owned
Taipei, Taiwan	Office	Distribution, sales and service	17,155	Leased
Shanghai, China	Office	Distribution and sales	12,583	Leased
Austin, TX	Office	Distribution and service	7,000	Leased
Hwasung Kyunggi-do, South Korea	Office	Distribution, sales and service	1,970	Leased
Dallas, TX	Office	Distribution and service	1,738	Leased
Osaka, Japan	Office	Sales	1,304	Leased
Tohuko, Japan	Office	Sales and service	1,046	Leased
Hiroshima, Japan	Office	Service	320	Leased
			544,857	

The Company considers the properties that it owns or leases as adequate to meet its current and future requirements. We regularly assesses the size, capability and location of our global infrastructure and periodically makes adjustments based on these assessments.

ITEM 3. LEGAL PROCEEDINGS

We are involved in disputes and legal actions arising in the normal course of our business. While we currently believe that the amount of any ultimate loss would not be material to our financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate loss could have a material adverse effect on our financial position or reported results of operations. An unfavorable decision in patent litigation also could require material changes in production processes and products or result in our inability to ship products or components found to have violated third-party patent rights. We accrue loss contingencies in connection with our commitments and contingencies, including litigation, when it is probable that a loss has occurred and the amount of the loss can be reasonably estimated.

During 2008, the Customs Office of Taipei, Taiwan issued a series of orders to our Taiwanese subsidiary, Advanced Energy Taiwan, Ltd., requiring that certain of our products manufactured in mainland China and allegedly imported without proper authorization be removed from Taiwan. We have protested the orders based upon recent rulings of the Taiwan Bureau of Foreign Trade that the products were authorized for unrestricted import. We

originally appealed to the Taiwan High Administrative Court which ruled against us in May 2009. We then appealed that decision to the Taiwan Supreme Administrative Court and it remains pending. We have previously recorded a charge of \$0.3 million as our best estimate of the amount we are likely to pay to resolve this matter. The maximum penalty related to this matter is \$2.3 million if the Customs Office determines that all of our products were not in compliance with the removal orders. We believe the likelihood of the Customs Office determining that all of our products were not in compliance with the removal orders to be remote.

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None.

PART II**ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES**

Our common stock is listed on the NASDAQ Global Select Market under the symbol AEIS. At February 23, 2010, the number of common stockholders of record was 536, and the closing sale price of our common stock on the NASDAQ Global Select Market on that day was \$15.01 per share.

The table below shows the range of high and low closing sale prices for the common stock as quoted (without retail markup or markdown and without commissions) on the NASDAQ Global Select Market:

	2009		2008	
	High	Low	High	Low
First Quarter	\$ 10.42	\$ 5.49	\$ 13.81	\$ 9.88
Second Quarter	\$ 10.35	\$ 7.73	\$ 16.10	\$ 13.09
Third Quarter	\$ 14.44	\$ 9.34	\$ 16.82	\$ 12.63
Fourth Quarter	\$ 15.08	\$ 10.93	\$ 13.42	\$ 5.94

We have not declared or paid any cash dividends on our capital stock since we terminated our election to be treated as an S-corporation for tax purposes, effective January 1, 1994. We currently intend to retain all future earnings to finance our business and do not anticipate paying cash or other dividends on our common stock in the foreseeable future.

In December 2007, the Board of Directors authorized a program to repurchase up to \$75 million of our common stock over a twelve month period. Under this program we repurchased and retired 3,775,000 shares of our common stock for a total of \$49.8 million. We suspended this stock repurchase program in April 2008. All shares repurchased were executed in the open market and no shares were repurchased from related parties. Repurchased shares were retired and assumed the status of authorized and unissued shares.

Performance Graph

The performance graph below shows the five-year cumulative total stockholder return on our common stock during the period from January 1, 2005 through December 31, 2009. This is compared with the cumulative total return of the Nasdaq Composite and the Philadelphia Semiconductor Index (SOXX) over the same period. The comparison assumes \$100 was invested on January 1, 2005 in Advanced Energy common stock and in each of the foregoing indices and assumes reinvestment of dividends, if any. Dollar amounts in the graph are rounded to the nearest whole dollar. The performance shown in the graph represents past performance and should not be considered an indication of future performance.

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The selected consolidated statement of operations data and the related consolidated balance sheet data were derived from the audited consolidated financial statements. The information below is not necessarily indicative of results of future operations and should be read in conjunction with Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations, of Part II of this Form 10-K in order to understand more fully the factors that may affect the comparability of the information presented below:

	Years Ended December 31,				
	2009	2008	2007	2006	2005
	(In thousands, except per share data)				
Statement of Operations Data:					
Sales	\$ 186,395	\$ 328,918	\$ 384,699	\$ 410,742	\$ 325,482
Gross profit	54,367	124,782	162,809	175,218	117,081
Goodwill impairment	63,260				
Total operating expenses	152,995	111,658	116,869	107,829	101,107
Income (loss) from operations	(98,628)	13,124	45,940	67,389	15,974
Income (loss) from continuing operations before income taxes	(96,717)	16,007	50,750	72,066	3,622
Net income (loss)	(102,705)	(1,779)	34,361	88,322	12,817
Diluted earnings (loss) per share from continuing operations	\$ (2.45)	\$ (0.04)	\$ 0.75	\$ 1.93	\$ 0.10
Diluted earnings (loss) per share	\$ (2.45)	\$ (0.04)	\$ 0.75	\$ 1.95	\$ 0.34
Diluted weighted-average common shares outstanding	41,966	42,537	45,704	45,265	37,434
Balance Sheet Data:					
Cash, cash equivalents, marketable securities and long-term investments	\$ 177,507	\$ 180,115	\$ 206,747	\$ 145,416	\$ 62,571
Working capital	231,777	239,566	305,955	247,798	143,633
Total assets	345,125	420,637	459,028	411,903	310,117
Total debt	76	164	243	329	4,190
Stockholders' equity	278,334	376,549	407,061	355,790	257,430

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Certain statements set forth below under this caption constitute forward-looking statements. See Business Special Note Regarding Forward-Looking Statements in Item 1 of this report for additional factors relating to such statements, and see Risk Factors beginning on page 9 for a discussion of certain risks applicable to our business, financial condition and results of operations.

Business Overview and Presentation

Our financial results for the year ended December 31, 2009 reflected significantly reduced demand for manufacturing equipment and services due to extremely unfavorable global economic and industry conditions. Negative trends in consumer spending and pervasive economic uncertainty led many of our customers to significantly reduce factory operations and to reduce their projected capital spending plans for capacity expansion, particularly during the first half of 2009, which severely impacted demand for our products. In the second half of 2009, demand for semiconductor equipment increased as compared to the first half of 2009, but was still down significantly from 2008 levels. While we achieved profitability in the fourth quarter of 2009, a meaningful improvement in the equipment sector in 2010 will depend on a sustainable recovery in our customers' end markets to support factories running at higher utilization rates, which will drive expansion in existing technologies, and to encourage customers to make investments in capacity for new technologies. In this uncertain macroeconomic and industry climate, our ability

to forecast customer demand and our future performance is limited. We currently expect a recovery in 2010, particularly in the market for semiconductor capital equipment, and anticipate that total sales may increase substantially in 2010 as compared to 2009. We believe our investments in new technology, which has remained strong during these challenging market conditions, will position us well during this anticipated market recovery.

Throughout 2008 and 2009, we implemented cost reduction efforts in response to the deteriorating economic conditions and weakening demand from our end markets described above. Some of the cost reductions were permanent in nature, such as reductions of personnel across all functions and geographies and consolidation of facilities on a worldwide basis. Overall, we reduced our global workforce by approximately 455 people, or 27% of total headcount, across all functions and geographies since the beginning of 2008.

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We expect the cost savings from this workforce reduction to be \$20.5 million annually, of which approximately \$7.8 million is a reduction in cost of goods sold, approximately \$7.4 million is a reduction of selling, general and administrative costs and \$5.3 million is a reduction of research and development costs.

In 2009, we also implemented cost-cutting initiatives that were more temporary in nature. Temporary cost reductions, implemented in 2009, provided savings of approximately \$4.8 million. These activities included cuts in discretionary spending, such as travel and professional fees, as well as pay cuts for management-level personnel, company-wide shutdowns and benefit cuts. These temporary cuts enabled us to maintain lower cost levels throughout 2009 and until such time that we felt the positive trends observed in the second half of 2009 may be sustainable. As of January 1, 2010, a majority of the temporary cost-cutting initiatives described above have been reversed.

Our analysis presented below is organized to provide the information we believe will be instructive for understanding our historical performance and relevant trends going forward. However, this discussion should be read in conjunction with our consolidated financial statements in Part II Item 8 of this report, including the notes thereto.

Results of Operations

The following table sets forth, for the periods indicated, certain data derived from our Consolidated Statements of Operations:

	Years Ended December 31,		
	2009	2008 (thousands)	2007
Sales	\$ 186,395	\$ 328,918	\$ 384,699
Gross profit	54,367	124,782	162,809
Operating expenses:			
Research and development	43,262	54,952	50,393
Selling, general and administrative	41,484	52,273	62,179
Impairment of goodwill	63,260		
Amortization of intangible assets	613	946	1,010
Restructuring charges	4,376	3,487	3,287
Total operating expenses	152,995	111,658	116,869
Income (loss) from operations	(98,628)	13,124	45,940
Other income, net	1,910	2,883	4,810
Income (loss) before income taxes	(96,718)	16,007	50,750
Provision for income taxes	5,987	17,786	16,389
Net income (loss)	\$ (102,705)	\$ (1,779)	\$ 34,361

The following table sets forth, for the periods indicated, the percentage of revenues represented by certain items reflected in our Statements of Operations:

	Years Ended December 31,		
	2009	2008	2007
Sales	100.0%	100.0%	100.0%
Gross profit	29.2	37.9	42.3
Operating expenses:			
Research and development	23.2	16.7	13.1
Selling, general and administrative	22.3	15.9	16.2

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Impairment of goodwill	33.9		
Amortization of intangible assets	0.3	0.3	0.3
Restructuring charges	2.4	1.0	0.8
Total operating expenses	82.1	33.9	30.4
Income (loss) from operations	(52.9)	4.0	11.9
Other income, net	1.0	0.9	1.3
Income (loss) before income taxes	(51.9)	4.9	13.2
Provision for income taxes	3.2	5.4	4.3
Net income (loss)	(55.1)%	(0.5)%	8.9%

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The following tables summarize annual net sales and percentages of net sales by customer type for each of the years ended 2009, 2008 and 2007:

	Years Ended December 31,			Increase/(Decrease)		Percentage Change	
	2009	2008 (In thousands)	2007	2009 v 2008	2008 v 2007	2009 v 2008	2008 v 2007
Semiconductor capital equipment	\$ 75,505	\$ 132,806	\$ 219,063	\$ (57,301)	\$ (86,257)	(43.1)%	(39.4)%
Non-semiconductor equipment	72,212	136,771	109,398	(64,559)	27,373	(47.2)	25.0
Global support	38,678	59,341	56,238	(20,663)	3,103	(34.8)	5.5
Total sales	\$ 186,395	\$ 328,918	\$ 384,699	\$ (142,523)	\$ (55,781)	(43.3)%	(14.5)%

	Years Ended December 31,		
	2009	2008	2007
Semiconductor capital equipment	40%	40%	57%
Non-semiconductor equipment	39%	42%	28%
Global support	21%	18%	15%
	100%	100%	100%

Overall sales decreased by 43.3% in 2009 as compared to 2008, reflecting significantly reduced demand for manufacturing equipment and services due to extremely unfavorable global economic and industry conditions.

Applied Materials Inc., our largest customer, accounted for \$37.2 million, or 20%, of our sales in 2009 as compared to \$69.3 million, or 21%, of our sales in 2008. Our sales to Applied Materials include sales for the semiconductor capital equipment market, as well as the solar, flat panel display and architectural glass markets.

Sales to the semiconductor capital equipment market decreased 43.1% in 2009 as compared to 2008 as end market demand for products that include semiconductors fell in the wake of the global economic crisis. The drop in demand reduced factory utilization and significantly reduced the need for semiconductor fab expansion. The semiconductor capital equipment market was severely affected by these developments and, consequently, demand for our products in these markets decreased from year ago levels.

As described above, there were positive trends in semiconductor demand in the second half of 2009 and we anticipate growth in sales to the semiconductor capital equipment market in 2010.

Sales to our non-semiconductor equipment markets declined 47.2% in 2009 as compared to 2008 as these markets were also adversely affected by a number of the pervasive factors previously mentioned, such as the credit constraints in the financial markets and the negative trends in consumer spending. The drop in end market demand reduced factory utilization and significantly reduced the need for capacity expansion in our non-semiconductor markets. The markets that comprise our non-semiconductor equipment markets include solar, flat panel display, data storage, architectural glass, and other industrial thin-film manufacturing equipment. Our customers in these markets, other than the solar market, are predominantly large original equipment manufacturers (OEMs) for new equipment. Our customers in the solar inverter market are predominantly large system integrators, independent power producers and public utilities.

Over the past three years, the solar market has been growing the fastest of our non-semiconductor equipment markets; however, product sales to this market were adversely affected by the weakness in the global economy and the global financial crisis which began in the second half of 2008 and continued through 2009. Solar panel manufacturers installed substantial panel manufacturing capacity over the past three years, and as a result of declining panel sales caused in part by the global recession, built significant inventory. The majority of solar panel manufacturers must work through their current inventory levels before their factory utilization will be at a point where the solar panel manufacturers will need to expand capacity. As a result, sales to customers in the solar market decreased 48.1% in 2009 as compared to 2008. Our products are used in the thin-film deposition process for solar cell production, such as amorphous silicon, polysilicon, amorphous-microcrystalline silicon, cadmium telluride (CdTe), copper indium gallium selenide (CIGS) and copper indium selenide (CIS). Sales of our Solaron® solar inverter, which converts DC power generated by the solar panel to AC power, are included in sales to the solar market.

Just as in our semiconductor market, demand for our products is driven by requirements for capacity expansion in each of the non-semiconductor markets we serve. We experienced sequential growth in our non-semiconductor business in the second half of 2009.

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Although visibility in the non-semiconductor market is unclear, we anticipate expansion to drive growth in these markets. We anticipate a continued shift in our business towards our non-semiconductor equipment markets as we continue to invest in new technology and products for the solar market.

Sales from our global support business decreased 34.8% in 2009 as compared to 2008 in large part from a continuing practice by our customers of utilizing spare parts inventory and idle equipment for spare parts in efforts to conserve cash as opposed to repairing malfunctioning or worn parts. However, we did experience growth in global support sales in the second half of 2009 as compared to the first half. This is an indication that factory utilization is beginning to improve and that customers no longer have enough inventory of spare parts to maintain their production lines. As a result, we anticipate our global support business to experience higher levels of sales in 2010 than in 2009.

Overall sales decreased by 14.5% in 2008 as compared to 2007, reflecting decreased demand for semiconductor equipment, due to unfavorable market conditions in the semiconductor industry. Sales to the semiconductor capital equipment market decreased 39.4% in 2008 as compared to 2007. This decrease was partially offset by sales to the non-semiconductor equipment market, which increased 25.0% in 2008 as compared to 2007. Our investments in capacity for solar panel production lines in 2008 drove this growth in our non-semiconductor capital equipment market.

Sales from our global support business increased 5.5% in 2008 as compared to 2007, reflecting a higher installed base of customers ordering service and system enhancements.

GROSS PROFIT

Our gross profit was \$54.4 million, or 29.2% of revenue, in 2009, \$124.8, or 37.9% of revenue, in 2008 and \$162.8 million, or 42.3% of revenue, in 2007. The large decrease in both absolute dollars and as a percentage of revenue in 2009 as compared to 2008 was due to an overall decrease in sales and the associated reduction in production volume related to the weakness in the economy which resulted in a lack of absorption of our factory costs therefore reducing our gross margin. In response to the decrease in production volume in 2009 we reduced our overall manufacturing costs by reducing fixed production and overhead costs including personnel costs and discretionary spending through the cost-cutting activities described earlier in this section. Overall, production and overhead personnel costs decreased by \$9.9 million, materials and supplies decreased by \$2.3 million, travel decreased by \$1.2 million and professional fees decreased by \$0.5 million.

The decrease in our gross profit, in both absolute dollars and as a percentage of revenue, in 2008 as compared to 2007 was primarily attributable to the decrease in revenue in the semiconductor capital equipment market which impacted utilization; and additional costs incurred in transitioning additional manufacturing from the United States to Shenzhen, China, as well as a decrease in the value of the US dollar, which resulted in increased material costs from our key European and Japanese suppliers.

Additionally, as a result of the weakening global economy, current market conditions and changing customer demand, we reviewed our end of life product and inventory strategies and our excess and obsolete inventory reserve policies in 2008. We determined that the uncertain market conditions negatively affected the longer-term demand for our parts and components on hand. This change in estimate resulted in an approximately \$4.0 million increase to our reserve for excess and obsolete inventory, therefore increasing cost of goods sold and decreasing gross profit.

Maintaining lower cost levels allowed us to substantially improve our gross margin percentage to 33.9% in the second half of 2009 as compared to 21.0% in the first half of 2009. Although we currently have excess manufacturing capacity related to buildings, machinery and unabsorbed overhead expenses, we anticipate continued improvement in our gross profit and gross margin percentage in 2010.

Table of Contents**OPERATING EXPENSES**

The following table summarizes our operating expenses as a percentage of sales for the years ended 2009, 2008 and 2007:

	Years Ended December 31,					
	2009	2008		2007		
	(In thousands)					
Research and development	\$ 43,262	23.2%	\$ 54,952	16.7%	\$ 50,393	13.1%
Selling, general and administrative	41,484	22.3%	52,273	15.9%	62,179	16.2%
Impairment of goodwill	63,260	33.9%		0.0%		0.0%
Amortization of intangible assets	613	0.3%	946	0.3%	1,010	0.4%
Restructuring charges	4,376	2.2%	3,487	1.0%	3,287	0.9%
Total operating expenses	\$ 152,995		\$ 111,658		\$ 116,869	

RESEARCH AND DEVELOPMENT

The markets we serve constantly present us with opportunities to develop our products for new or emerging applications and require technological changes driving for higher performance, lower cost, and other attributes that will advance our customers' products. We believe that continued and timely development of new and differentiated products, as well as enhancements to existing products to support customer requirements, is critical for us to compete in the markets we serve. Accordingly, we devote significant personnel and financial resources to the development of new products and the enhancement of existing products, and we expect these investments to continue. All of our research and development costs have been expensed as incurred.

Research and development costs were \$43.3 million, or 23.2% of sales, in 2009, \$55.0 million, or 16.7% of sales, in 2008, and \$50.4 million, or 13.1% of sales, in 2007.

The decrease in research and development expenses of \$11.7 million in 2009 as compared to 2008 was driven primarily by decreases of \$9.0 million in personnel costs, \$1.5 million in engineering material, and \$0.3 million in travel costs. The large decrease in engineering material was offset by an approximate \$0.8 million charge for excess and obsolete engineering inventory, for which management does not believe there will be utilizable demand. Overall, the decrease in material costs was due to more effective spending controls related to engineering projects.

The increase in research and development expenses of \$4.6 million in 2008 as compared to 2007 was driven primarily by increased personnel costs of \$2.5 million and material expenses of \$1.5 million related to the development of new platforms and the costs associated with sustaining engineering of existing platforms. In 2009 we released the Solaron 500kw, Solaron 500e and the Solaron 250kw to the solar inverter market, and the Paramount and Ascent to the RF and DC markets, respectively.

SELLING, GENERAL AND ADMINISTRATIVE

Our selling expenses support domestic and international sales and marketing activities that include personnel, trade shows, advertising, third-party sales representative commissions and other selling and marketing activities. Our general and administrative expenses support our worldwide corporate, legal, tax, financial, governance, administrative, information systems and human resource functions in addition to our general management.

Selling, general and administrative (SG&A) costs were \$41.5 million, or 22.3% of sales in 2009, \$52.3 million, or 15.9% of sales in 2008, and \$62.2 million, or 16.2% of sales in 2007. Continued reduction of personnel related costs and other discretionary costs drove overall SG&A costs lower by \$10.8 million in 2009 as compared to 2008. Personnel costs decreased by \$6.1 million, purchased services decreased by \$2.5 million, and travel was reduced by \$1.8 million in 2009 as compared to 2008, offset by a \$1.1 million increase in bad debt expense. The increase in bad debt expense in 2009 was a result of certain customers' deteriorating financial condition. While we believe that our allowance for doubtful accounts at December 31, 2009 is adequate, we will continue to closely monitor customer

liquidity and other economic conditions.

The 16.0% decrease in SG&A costs in 2008 as compared to 2007 was a result of the reductions of personnel and related costs aimed at reducing administrative burden and increasing efficiencies. Overall, SG&A costs decreased by \$9.9 million in 2008 as compared to 2007. Personnel costs decreased by \$7.0 million, travel was reduced by \$2.4 million, and third party sales compensation to independent sales representatives was \$0.6 million lower due to a decrease in overall sales revenue.

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RESTRUCTURING CHARGES

Restructuring costs are related to actions we took primarily in response to downturns in our markets. These costs were incurred to exit an activity or cancel an existing contractual obligation, including the closure of facilities and employee termination related charges.

As discussed earlier in this section, we implemented cost reduction efforts in response to deteriorating economic conditions and weakening demand from our end markets. As a result, we incurred restructuring costs of \$4.4 million in 2009. The costs incurred were primarily severance and benefits related to reductions in personnel. We continue to look for ways to make our global workforce more efficient and effective, which may lead to additional cost reduction activities in the future.

In 2008, we recognized restructuring costs of \$3.5 million, of which \$3.2 million was associated with global cost reduction plans with respect to reductions in personnel implemented at various times throughout the year. The remaining \$0.3 million of restructuring charges recognized in 2008 were a result of a plan to transition the production of a number of our legacy products from our manufacturing facility in Fort Collins, Colorado to our manufacturing facility in Shenzhen, China. This activity in 2008 led to the elimination of approximately 140 positions on a worldwide basis.

In 2007, we closed our operation in Stolberg, Germany. Related to this closure, we recorded restructuring charges of \$3.3 million, consisting primarily of impairment on real and personal property and employee severance and benefit costs associated with the reduction of employees at the facility.

GOODWILL IMPAIRMENT CHARGE

We recorded a non-cash goodwill impairment charge in the amount of \$63.3 million in 2009 based upon the results of our impairment test performed during the first quarter of 2009. For further discussion of the goodwill impairment charge recorded, see Note 4 Goodwill, Purchased Technology and Other Intangible Assets to the Condensed Consolidated Financial Statements.

OTHER INCOME (EXPENSE)

Other income (expense) consists primarily of interest income and expense, foreign exchange gains and losses and other miscellaneous gains, losses, income and expense items.

Other income was \$1.9 million in 2009, \$2.9 million in 2008, and \$4.8 million in 2007. The decrease of \$1.0 million in 2009 as compared to 2008 was the result of lower interest income as interest rates available in the financial markets in 2009 were considerably lower than in 2008.

The decrease of \$1.9 million in 2008 as compared to 2007 was primarily driven by a \$1.4 million decrease in interest income and a net \$0.5 million loss related to the valuation of our auction rate securities and Put Agreement. The decrease related to interest income was a result of lower interest rates being offered in the financial markets and a decrease in our invested funds due to a \$49.8 million buyback of the Company's stock.

PROVISION FOR INCOME TAXES

During 2008, based on our 2008 operating results and projection of future operating results within the United States, our management evaluated the recoverability of our deferred tax assets in the United States and concluded a portion of our United States deferred tax assets were not recoverable. As such, an increase to the valuation allowance of \$18.0 million was recorded during the quarter ended December 31, 2008.

For the first three quarters of 2009, we continued to sustain losses in the United States and, as a result, an increase to the valuation allowance of \$17.0 million was necessary since management had determined that we were not likely to utilize the benefits of the associated deferred tax assets. At that time, we had recorded a valuation allowance against our deferred tax assets of \$40.3 million and the ultimate realization of our overall deferred tax assets was dependent upon the generation of approximately \$111.6 million of future taxable income in the United States, the timing and amount of which was uncertain.

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In the second half of 2009, we reconfigured our legal entity structure to realign our Chinese manufacturing operations with the intellectual property utilized in such manufacturing. On December 31, 2009, we transferred the economic rights to our patents and know-how from other affiliates throughout the world, including the parent company. As a result of this realignment, we generated \$84.4 million of taxable income in the United States and Japan and, thus, reversed a portion of our valuation allowance and will utilize previously reserved deferred tax assets upon filing of our 2009 tax return.

Overall, we recorded an income tax provision in 2009 of \$6.0 million. The provision was driven primarily by \$5.7 million of tax on income in foreign jurisdictions and \$1.0 million of federal income tax, which was comprised of \$3.6 million of expense related to uncertain tax positions offset by \$2.6 million of federal benefit. The remainder related to a \$0.7 million benefit for state taxes.

The income tax expense of \$17.8 million in 2008 was the result of an \$18.0 million increase to our valuation allowance recorded in the fourth quarter of 2008 and a change in the profitability mix between the U.S. and our global subsidiaries, whereby more income was generated at our lower income tax subsidiaries during 2008 than in the 2007.

We anticipate that the entity restructuring discussed previously in this Annual Report on Form 10-K will improve efficiency, streamline processes and properly align intellectual property (and the related expenses) with the manufacturing operations undertaken in China. As a result, we believe we will see worldwide tax savings related to the new structure over time resulting in an overall lower effective rate on consolidated earnings.

Our future effective income tax rate depends on various factors, such as tax legislation and the geographic composition of our pre-tax income. We carefully monitor these factors and timely adjust our effective income tax rate accordingly.

QUARTERLY RESULTS OF OPERATIONS

The following tables present unaudited quarterly results in dollars and as a percentage of sales for each of the eight quarters in the period ended December 31, 2009. We believe that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. Due to the volatility of the industries in which our customers operate, the operating results for any quarter are not necessarily indicative of results for any subsequent period.

	Quarter Ended							
	Dec. 31, 2009	Sept. 30, 2009	Jun. 30, 2009	Mar. 31, 2009	Dec. 31, 2008	Sept. 30, 2008	Jun. 30, 2008	Mar. 31, 2008
	(In thousands, except per share data)							
Sales	\$ 66,439	\$ 51,762	\$ 35,567	\$ 32,627	\$ 67,525	\$ 84,510	\$ 87,996	\$ 88,887
Gross Profit	24,467	15,581	7,931	6,388	18,397	35,261	35,276	35,848
Restructuring	6	235	739	3,396	1,898	522	393	674
Income								
(loss) from								
operations	1,951	(5,760)	(13,836)	(80,983)	(6,695)	5,498	6,940	7,381
Net income (loss)	\$ 1,523	\$ (8,431)	\$ (16,034)	\$ (79,763)	\$ (18,977)	\$ 5,369	\$ 5,863	\$ 5,966
Diluted earnings								
(loss) per share	\$ 0.04	\$ (0.20)	\$ (0.38)	\$ (1.90)	\$ (0.45)	\$ 0.13	\$ 0.14	\$ 0.13

	Quarter Ended							
	Dec. 31, 2009	Sept. 30, 2009	Jun. 30, 2009	Mar. 31, 2009	Dec. 31, 2008	Sept. 30, 2008	Jun. 30, 2008	Mar. 31, 2008
Percentage of								
Sales:								
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Gross Profit	36.8%	30.1%	22.3%	19.6%	27.2%	41.7%	40.1%	40.3%
Restructuring	0.0%	0.5%	2.1%	10.4%	2.8%	0.6%	0.4%	0.8%
Income								
(loss) from								
operations	2.9%	-11.1%	-38.9%	-248.2%	-9.9%	6.5%	7.9%	8.3%
Net income (loss)	2.3%	-16.3%	-45.1%	-244.5%	-28.1%	6.4%	6.7%	6.7%

Impact of Inflation

In recent years, inflation has not had a significant impact on our operations. However, we continuously monitor operating price increases, particularly in connection with the supply of component parts used in our manufacturing process. To the extent permitted by competition, we pass increased costs on to our customers by increasing sales prices over time. Sales price increases, however, were not significant in any of the years presented herein.

Recent Accounting Pronouncements

In April 2009, the Financial Accounting Standards Board (FASB) issued authoritative guidance on accounting for assets acquired and liabilities assumed in a business combination that arise from contingencies, which amends the provisions related to the initial recognition and measurement, subsequent measurement and disclosure of assets and liabilities arising from contingencies in a business combination under previously

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issued guidance. The authoritative guidance requires that such contingencies be recognized at fair value on the acquisition date if fair value can be reasonably estimated during the allocation period. This authoritative guidance will be effective for us in 2010. We expect that this authoritative guidance will have an impact on our consolidated financial statements, but the nature and magnitude of the specific effects will depend upon the nature, term and size of acquired contingencies, if any.

From time to time, new accounting pronouncements are issued by the FASB or other standards setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, our management believes that the impact of recently issued standards that are not effective will not have a material impact on our consolidated financial statements upon adoption.

Liquidity and Capital Resources

Our primary sources of liquidity are our available cash levels and available liquidity from our Credit Line Agreement and Put Agreement. We utilize these capital resources to make capital expenditures primarily for our operational needs, investment in technology applications and tools to further develop our products and for other general corporate purposes, including the funding of possible acquisitions. In future periods, we intend similar uses of these funds.

During the twelve months ended December 31, 2009, we generated \$18.6 million in cash from net changes in marketable securities, \$5.4 million from operating activities and \$0.5 million of proceeds from stock option exercises, offset by the use of \$5.6 million for capital expenditures, resulting in a \$16.7 million increase in available cash (including \$2.1 million of unfavorable effects of international currency exchange rates on cash).

Net cash flows provided by operating activities in the twelve months ended December 31, 2009 were \$5.4 million, compared to \$24.1 million of cash provided by operating activities in the twelve months ended December 31, 2008. The \$18.7 million decrease in net cash flows from operating activities was due to a \$100.7 million decrease in net income, offset by a \$46.1 million increase in non-cash reconciling items such as goodwill impairment, depreciation and amortization, stock-based compensation, restructuring charges, provision for excess and obsolete inventory, provision for doubtful accounts and deferred income taxes, and a \$35.9 million increase in cash flows from changes in operating assets and liabilities, principally the depletion of inventory, collection of receivables and cash generated from an increase in accounts payable. The increase in accounts payable from December 31, 2009 as compared to December 31, 2008 was primarily the result of a decision to extend payment terms to our vendors.

Capital expenditures were \$5.6 million for the twelve months ended December 31, 2009 compared to \$7.2 million for the twelve months ended December 31, 2008. Capital expenditures in both periods presented primarily include the cost of lab and testing equipment to support sustaining engineering and new product development efforts as well as capacity expansion for the production of our Solaron[®] Inverter.

At December 31, 2009, our ARS, whose underlying assets are primarily student loans originated under the Federal Family Education Loan Program (FFELP), had a fair value of \$21.5 million. FFELP student loans are guaranteed by state guarantors who have reinsurance agreements with the United States Department of Education. In addition to the student loans, a smaller portion of our portfolio is held in municipal securities. Since February 2008, the auctions for these securities have failed to settle, causing us to hold the securities longer than originally intended. In November 2008, we executed the Put Agreement and expect to liquidate all of our remaining ARS at par when our rights under the agreement are effective beginning June 30, 2010. Since the period for which this Put Agreement is effective within twelve months and it is management's intent to liquidate the securities at the effective date, we have reclassified our ARS from long-term assets to current assets. We do not expect to incur any loss of principal; however, until we liquidate our ARS, we will recognize any change in fair value of the ARS in earnings. We expect the subsequent changes in the value of the Put Agreement will largely offset any subsequent fair value changes of the ARS, subject to the continued performance by the financial institution of its obligations under the Put Agreement. Other than via the Put Agreement, the principal could become available pursuant to one of three different scenarios: (1) the ARS is called; (2) auctions resume and are successful; or (3) the principal reaches maturity.

On June 2, 2009, pursuant to the Put Agreement, we entered into a Credit Line Account Agreement with UBS Bank. At December 31, 2009, the Credit Line Agreement provides us with an uncommitted, demand revolving line of credit (an intended no net cost loan) of \$16.3 million (75% of par value of our ARS), as determined by UBS Bank in

its sole discretion, which is secured by our ARS. Upon our request, UBS Bank may make one or more advances to us. Any interest expense that we incur on the no net cost loan is not expected to exceed the interest income that we receive on the ARS that we have pledged to UBS Bank. If the payments on our ARS are not sufficient to pay the accrued interest on such advances before a due date, UBS Bank may, in

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its sole discretion (1) capitalize unpaid interest as an additional advance or (2) require us to make payment of all accrued and unpaid interest. UBS Bank may demand full or partial payment of the no net cost loan, at its sole option and without cause, at any time. UBS Bank may also, at any time, in its discretion, terminate and cancel the no net cost loan. If at any time UBS Bank exercises its right of demand under certain sections of the Credit Line Agreement, then UBS Financial Services Inc. or one of its affiliates shall provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the Credit Line Agreement and the Credit Line Agreement will remain in full force and effect until such time as such alternative financing has been established. As of December 31, 2009, no advances were drawn against the line.

At December 31, 2009, we had \$177.5 million in cash, cash equivalents and marketable securities, including our ARS and the Put Agreement. We believe that our current cash levels and cash flows from future operations will be adequate to meet anticipated working capital needs, anticipated levels of capital expenditures and contractual obligations for the foreseeable future.

Off Balance Sheet Arrangements

We have no off-balance sheet arrangements as defined under Item 303 (a)(4) of Regulation S-K.

Contractual Obligations

The following table sets forth our future payments due under contractual obligations as of December 31, 2009 (in thousands):

Contractual Obligations	Total	Less than	1-3	3-5	More than
		1	years	years	5 years
		year			
Long-term debt obligations	\$	\$	\$	\$	\$
Capital lease obligations	76	47	29		
Operating lease obligations	19,389	6,105	7,436	3,741	2,107
Purchase obligations	32,678	32,678			
Total	\$ 52,143	\$ 38,830	\$ 7,465	\$ 3,741	\$ 2,107

As of December 31, 2009, we have \$15.0 million in uncertain tax positions, net of federal benefit. Because of the uncertainty of the amounts to be ultimately paid as well as the timing of such payments, these liabilities are not reflected in the contractual obligations table. Purchase obligations include firm commitments and agreements with various suppliers to ensure the availability of components.

Critical Accounting Policies and Estimates

The preparation of consolidated financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) requires management to make judgments, assumptions and estimates that affect the amounts reported. Note 1 of Notes to Consolidated Financial Statements describes the significant accounting policies used in the preparation of the consolidated financial statements. Certain of these significant accounting policies are considered to be critical accounting policies.

A critical accounting policy is defined as one that is both material to the presentation of our consolidated financial statements and requires management to make difficult, subjective or complex judgments that could have a material effect on our financial condition or results of operations. Specifically, these policies have the following attributes: (1) We are required to make assumptions about matters that are highly uncertain at the time of the estimate; and (2) different estimates we could reasonably have used, or changes in the estimate that are reasonably likely to occur, would have a material effect on our financial condition or results of operations.

Estimates and assumptions about future events and their effects cannot be determined with certainty. We base our estimates on historical experience and on various other assumptions believed to be applicable and reasonable under the circumstances. These estimates may change as new events occur, as additional information is obtained and as our operating environment changes. These changes have historically been minor and have been included in the

consolidated financial statements as soon as they became known. In addition, management is periodically faced with uncertainties, the outcomes of which are not within its control and will not be known for prolonged periods of time. These uncertainties are discussed in the section above entitled Risk Factors. Based on a critical assessment of our accounting policies and the underlying judgments and uncertainties affecting the application of those policies, management believes that our consolidated financial statements are fairly stated in accordance with U.S. GAAP

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, and provide a meaningful presentation of our financial condition and results of operations.

Management believes that the following are critical accounting estimates that have a continuing effect on the results of our operations and our financial position:

WARRANTY COSTS We offer warranty coverage for a majority of our products for periods typically ranging from 12 to 24 months after shipment. We warrant our solar inverter for five years, and also offer extended warranties on our Solaron products in increments of five years up to an additional ten years. We estimate the anticipated costs of repairing products under warranty based on the historical or expected cost of the repairs and expected failure rates. The assumptions used to estimate warranty accruals are reevaluated quarterly, at a minimum, in light of actual experience and, when appropriate, the accruals or the accrual percentage is adjusted based on specific estimates of project repair costs and quantity of product returns. Our determination of the appropriate level of warranty accrual is based on estimates of the percentage of units affected and the repair costs. Estimated warranty costs are recorded at the time of sale of the related product, and are recorded within cost of sales in the consolidated statements of operations.

The following table summarizes the activity in our warranty reserve during the twelve months ended December 31, 2009, 2008 and 2007:

	2009	2008	2007
		(In thousands)	
Balance at beginning of period	\$ 6,189	\$ 8,812	\$ 7,845
Additions charged to expense	7,759	11,335	11,159
Deductions	(6,825)	(13,958)	(10,192)
Balance at end of period	\$ 7,123	\$ 6,189	\$ 8,812

EXCESS AND OBSOLETE INVENTORY Reserves are provided for excess and obsolete inventory, which are estimated based on a comparison of the quantity of inventory on hand to management's forecast of customer demand. Customer demand is dependent on many factors, including both micro and macroeconomic, and requires us to use significant judgment in our forecasting process. We must also make assumptions regarding the rate at which new products will be accepted in the marketplace, the rate at which customers will transition from older products to newer products, effect of engineering changes to a product or discontinuance of a product line. If actual market conditions or our customers' product demands are less favorable than those projected, additional valuation adjustments may be necessary.

We will continue to evaluate the estimates related to our excess and obsolete inventory reserve. If market conditions and customer demand continue to weaken in future periods, we may determine that increases in our reserve and, therefore, further increases in cost of goods sold and decreases in gross profit may be necessary.

ALLOWANCE FOR DOUBTFUL ACCOUNTS We maintain allowances for doubtful accounts of \$2.0 million, or 3.8% of accounts receivable, as of December 31, 2009 for estimated losses arising from the inability of our customers to make required payments. Our estimate is based on factors surrounding the credit risk of certain customers, historical collection experience and a review of the current status of trade accounts receivable. It is reasonably possible that our estimate of the allowance for doubtful accounts will change if the financial condition of our customers were to deteriorate, resulting in a reduced ability to make payments.

FAIR VALUE OF INVESTMENTS We value our financial assets and liabilities using fair value measurements. Fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In order to increase consistency and comparability in fair value measurements, a fair value hierarchy is used that prioritizes observable and unobservable inputs used to measure fair value into three broad levels, which are described below:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted in active markets, but corroborated by direct or indirect market data.

Level 3: Unobservable inputs, developed using our estimates and assumptions, which reflect those that market participants would use. Such inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

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The fair value of our ARS and the Put Agreement were determined using Level 3 inputs. Some of the inputs into the discounted cash flow models we use are unobservable in the market and have a significant effect on valuation. The assumptions used in preparing the models include, but are not limited to, periodic coupon rates, market required rates of return and the expected term of each security. The coupon rate was estimated using implied forward rate data on interest rate swaps and United States treasuries, and limited where necessary by any contractual maximum rate paid under a scenario of continuing auction failures. We believe implied forward rates inherently account for a lack of liquidity. In making assumptions of the required rates of return, we considered risk-free interest rates and credit spreads for investments of similar credit quality. The expected term for the ARS was based on a weighted probability-based estimate of the time the principal will become available to us with and without exercising our Put Agreement. The expected term for the Put Agreement was based on the earliest date on which we can exercise our put. Any change to these inputs will affect the fair value of the ARS and the Put Agreement and will affect our reported earnings. However, we do not expect changes in the inputs or reported earnings to affect our liquidity.

INCOME TAXES We assess the recoverability of our net deferred tax assets on a quarterly basis. Our assessment includes a number of factors, including historical results and income projections for each jurisdiction. As of September 30, 2009, we had gross deferred income tax assets of \$55.0 million in the United States and \$1.9 million in foreign jurisdictions, a significant portion of which related to net operating losses and tax credit carryforwards, for which a valuation allowance of \$40.3 million had been provided. The ultimate realization of deferred income tax assets is dependent on the generation of taxable income in appropriate jurisdictions during the periods in which those temporary differences are deductible. Management considers the scheduled reversal of deferred income tax liabilities, projected future taxable income, and tax planning strategies in determining the amount of the valuation allowance. Based on the level of historical taxable income and projections for future taxable income over the periods in which the deferred income tax assets are deductible, management determines if we will realize the benefits of these deductible differences. The most significant factors considered in determining the realizability of these deferred tax assets and the amount of the valuation allowance were our profitability over the past three years (which excludes the effect of the non-deductible goodwill charge recorded during the quarter ended March 31, 2009), the historical cyclicity of the markets in which we operate and our projected profitability during these cycles.

In the second half of 2009, we reconfigured our legal entity structure to realign our Chinese manufacturing operations with the intellectual property utilized in such manufacturing. As a result of this realignment, we generated \$84.4 million of taxable income in the United States and Japan and, thus, reversed a portion of our valuation allowance and will utilize previously reserved deferred tax assets upon filing of our 2009 tax return.

In general, we are subject to regular examination of our income tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates and reserves, including those for uncertain tax positions, are reasonable, including those relied upon in the execution of our entity restructuring, there can be no assurance that any final determination will not be materially different from the treatment reflected in our current or historical income tax provisions and accruals, which could materially and adversely affect our results of operations.

The calculation of tax assets and liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a significant impact on our results of operations and financial condition.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**Interest Rate Risk**

Our market risk exposure relates to changes in interest rates in our investment portfolio. We generally place our investments with high-credit quality issuers and by policy are averse to principal loss and seek to protect and preserve our invested funds by limiting default risk, market risk and reinvestment risk. As of December 31, 2009, our investments consisted primarily of commercial paper, municipal bonds, auction rate securities and notes and institutional money markets.

As a measurement of the sensitivity of our portfolio, if interest rates were to fluctuate by 100 basis points, the impact on total yield would be approximately \$0.2 million.

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Auction Rate Securities Risk

We face market risk exposure associated with our investments in auction rate securities. Our investments in auction rate securities are classified as trading securities and were recorded at fair value of \$21.7 million at December 31, 2009. The underlying securities related to these investments are student loans, which accounted for \$19.7 of the recorded fair value, and other municipal holdings, which accounted for the remaining \$2.0 million of the recorded fair value. These ARS were intended to provide liquidity via an auction process that resets the applicable interest rate approximately every 30 days and allows investors to either roll over their holdings or gain immediate liquidity by selling such investments at par. As a result of current negative conditions in the global credit markets, since February 2008, the large majority of the auctions for our investment in these securities have failed to settle, causing us to continue to hold the securities. Based on the estimated fair value of the ARS, during 2009, we recorded an unrealized gain on these securities of approximately \$0.3 million, reflecting the increase in the estimated fair value of these securities. We continue to monitor the market for auction rate securities and consider its impact, if any, on the fair value of these investments. If current market conditions deteriorate further, we may be required to record additional unrealized losses.

In November 2008, we executed a non-transferrable auction rate securities rights agreement (the Put Agreement) with a financial institution that provides us with the ability to sell certain of our ARS to the financial institution, at our sole discretion, and obligates the financial institution to purchase such ARS, at par during the period June 30, 2010 through July 2, 2012. The Put Agreement had a fair value of \$3.2 million at December 31, 2009. The benefits of the Put Agreement are subject to the continued performance by the financial institution of its obligations under the agreement.

Foreign Currency Exchange Rate Risk

We transact business in various foreign countries. Our primary foreign currency cash flows are generated in countries in Asia and Europe. It is highly uncertain how currency exchange rates will fluctuate in the future. Periodically, we enter into various foreign currency forward exchange contracts to mitigate risk of currency fluctuations in the British pound, European euro, Japanese yen, Taiwanese dollar, South Korean won and Chinese yuan.

We did not execute foreign currency forward contract transactions in 2009. We incurred a loss of \$0.8 million on foreign currency forward contract transactions in 2008 and a loss of \$0.4 million on foreign currency forward contract transactions in 2007. These amounts were recorded in other income (expense), net on the income statement.

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ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

Reports of Grant Thornton LLP, Independent Registered Public Accounting Firm

Consolidated Balance Sheets as of December 31, 2009 and 2008

Consolidated Statements of Operations for the Years Ended December 31, 2009, 2008 and 2007

Consolidated Statements of Stockholders' Equity for the Years Ended December 31, 2009, 2008 and 2007

Consolidated Statements of Cash Flows for the Years Ended December 31, 2009, 2008 and 2007

Notes to Consolidated Financial Statements

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Advanced Energy Industries, Inc.

We have audited the accompanying consolidated balance sheets of Advanced Energy Industries, Inc. (a Delaware corporation) and subsidiaries (collectively, the Company) as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2009. 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 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. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2009 and 2008, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2009, in conformity with accounting principles generally accepted in the United States of America.

As discussed in Notes 1 and 7, on January 1, 2008, the Company adopted accounting guidance regarding fair value measurements that defines fair value and requires expanded disclosures about fair value measurements. Also on January 1, 2008, as discussed in Notes 1 and 7, the Company adopted accounting guidance regarding accounting for certain financial assets and financial liabilities at fair value.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), Advanced Energy Industries, Inc. and subsidiaries' internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control - Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated February 26, 2010 expressed an unqualified opinion.

/s/ GRANT THORNTON LLP

Denver, Colorado

February 26, 2010

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and Shareholders

Advanced Energy Industries, Inc.

We have audited Advanced Energy Industries, Inc. (a Delaware Corporation) and subsidiaries (collectively, the Company) internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Report on Internal Control over Financial Reporting* appearing under Item 9A of the Company's Annual Report on Form 10-K for the year ended December 31, 2009. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

In our opinion, Advanced Energy Industries, Inc. and subsidiaries maintained, in all material respects, effective internal control over financial reporting as of December 31, 2009, based on criteria established in *Internal Control Integrated Framework* issued by COSO.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2009 and 2008, and the related consolidated statements of operations, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2009, and our report dated February 26, 2010 expressed an unqualified opinion.

/s/ GRANT THORNTON LLP

Denver, Colorado

February 26, 2010

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ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
Consolidated Balance Sheets
(In thousands, except per share amounts)

	December 31,	
	2009	2008
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 133,106	\$ 116,448
Marketable securities	44,401	33,266
Accounts receivable, net	50,267	56,549
Inventory	37,118	46,659
Deferred income tax assets	9,215	13,253
Other current assets	5,648	5,324
Total current assets	279,755	271,499
PROPERTY AND EQUIPMENT, net	30,615	31,322
OTHER ASSETS:		
Deposits and other	9,294	7,528
Long-term investments		30,401
Goodwill		66,163
Other intangible assets, net	5,982	6,755
Deferred income tax assets	19,479	6,969
Total assets	\$ 345,125	\$ 420,637
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Accounts payable	\$ 23,802	\$ 8,005
Income taxes payable	3,503	2,679
Accrued payroll and employee benefits	6,119	7,951
Accrued warranty expense	7,123	6,189
Accrued restructuring		1,825
Other accrued expenses	4,230	4,168
Customer deposits and deferred revenue	3,152	1,027
Capital lease obligations, current portion	49	89
Total current liabilities	47,978	31,933
LONG-TERM LIABILITIES:		
Capital leases, net of current portion	27	75
Deferred income tax liabilities	2,556	2,660
Uncertain tax positions	14,987	7,877
Other long-term liabilities	1,243	1,543
Total liabilities	66,791	44,088
Commitments and contingencies (Note 11)		

STOCKHOLDERS EQUITY:

Preferred stock, \$0.001 par value, 1,000 shares authorized, none issued and outstanding		
Common stock, \$0.001 par value, 70,000 shares authorized; 42,044 and 41,849 shares issued and outstanding at December 31, 2009 and 2008, respectively	42	42
Additional paid-in capital	233,623	224,139
Retained earnings	17,261	119,966
Other comprehensive income	27,408	32,402
Total stockholders equity	278,334	376,549
Total liabilities and stockholders equity	\$ 345,125	\$ 420,637

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

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ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
Consolidated Statements of Operations
(In thousands, except per share amounts)

	Years Ended December 31,		
	2009	2008	2007
SALES	\$ 186,395	\$ 328,918	\$ 384,699
COST OF SALES	132,028	204,136	221,890
GROSS PROFIT	54,367	124,782	162,809
OPERATING EXPENSES:			
Research and development	43,262	54,952	50,393
Selling, general and administrative	41,484	52,273	62,179
Impairment of goodwill	63,260		
Amortization of intangible assets	613	946	1,010
Restructuring charges	4,376	3,487	3,287
Total operating expenses	152,995	111,658	116,869
INCOME (LOSS) FROM OPERATIONS	(98,628)	13,124	45,940
OTHER INCOME:			
Interest income	1,371	4,955	6,329
Other income (expense), net	539	(2,072)	(1,519)
Total other income	1,910	2,883	4,810
Income (loss) from operations before income taxes	(96,718)	16,007	50,750
PROVISION FOR INCOME TAXES	5,987	17,786	16,389
NET INCOME (LOSS)	\$ (102,705)	\$ (1,779)	\$ 34,361
BASIC EARNINGS (LOSS) PER SHARE	\$ (2.45)	\$ (0.04)	\$ 0.76
DILUTED EARNINGS (LOSS) PER SHARE	\$ (2.45)	\$ (0.04)	\$ 0.75
BASIC WEIGHTED AVERAGE COMMON SHARES OUTSTANDING	41,966	42,537	45,156
DILUTED WEIGHTED AVERAGE COMMON SHARES OUTSTANDING	41,966	42,537	45,704

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

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ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
Consolidated Statements of Stockholders Equity
(In thousands)

	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Stockholders Equity
BALANCES, December 31, 2006	44,855	\$ 45	\$ 258,688	\$ 88,344	\$ 8,713	\$ 355,790
Adoption of FIN 48				(960)		(960)
Exercise of stock options for cash	339		4,518			4,518
Sale of common stock through employee stock purchase plan	28		403			403
Stock-based compensation	66		3,596			3,596
Comprehensive income: Equity adjustment from foreign currency translation					9,676	9,676
Unrealized holding losses					(323)	(323)
Net income				34,361		34,361
Total comprehensive income						43,714
BALANCES, December 31, 2007	45,288	\$ 45	\$ 267,205	\$ 121,745	\$ 18,066	\$ 407,061
Exercise of stock options for cash	187		1,637			1,637
Sale of common stock through employee stock purchase plan	36		371			371
Stock-based compensation	113		4,696			4,696
Stock buyback	(3,775)	(3)	(49,770)			(49,773)
Comprehensive income: Equity adjustment from foreign currency translation					14,001	14,001
Unrealized holding gains					335	335
Net loss				(1,779)		(1,779)
Total comprehensive income						12,557

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BALANCES, December 31, 2008	41,849	\$ 42	\$ 224,139	\$ 119,966	\$ 32,402	\$ 376,549
Exercise of stock options for cash	40		320			320
Sale of common stock through employee stock purchase plan	23		188			188
Stock-based compensation	132		5,404			5,404
Excess tax benefit from stock option exercises			3,818			3,818
Other			(246)			(246)
Comprehensive income: Equity adjustment from foreign currency translation					(4,985)	(4,985)
Unrealized holding losses					(9)	(9)
Net loss				(102,705)		(102,705)
Total comprehensive income						(107,699)
BALANCES, December 31, 2009	42,044	\$ 42	\$ 233,623	\$ 17,261	\$ 27,408	\$ 278,334

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

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ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(In thousands)

	Years Ended December 31,		
	2009	2008	2007
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income (loss)	\$ (102,705)	\$ (1,779)	\$ 34,361
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation and amortization	9,014	10,718	12,218
Goodwill impairment charge	63,260		
Stock-based compensation expense	5,404	4,599	4,105
Provision (benefit) for deferred income taxes	(5,283)	7,927	5,125
Restructuring and asset impairment charges	4,376	3,487	3,287
Provision for excess and obsolete inventory	2,985	5,784	918
Provision for (recovery of) doubtful accounts	1,775	679	(119)
Unrealized loss on foreign currency forward contracts			39
Net loss on disposal of assets	323	19	555
Changes in operating assets and liabilities			
Accounts receivable	5,278	8,917	14,163
Inventories	8,190	(2,347)	1,877
Other current assets	(1,573)	370	277
Accounts payable	15,797	(4,596)	(4,063)
Other current liabilities and accrued expenses	2,088	(2,722)	(6,320)
Income taxes	5,364	(2,615)	(3,967)
Non-current assets	(4,785)	(2,269)	(1,576)
Non-current liabilities	(318)	(2,095)	930
Net cash provided by operating activities	9,190	24,077	61,810
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of marketable securities	(38,115)	(21,156)	(112,370)
Proceeds from sale of marketable securities	56,684	72,855	88,523
Proceeds from sale of assets			2,149
Purchase of property and equipment	(5,611)	(7,202)	(8,870)
Net cash provided by (used in) investing activities	12,958	44,497	(30,568)
CASH FLOWS FROM FINANCING ACTIVITIES:			
Payments on capital lease obligations	(85)	(120)	(101)
Purchase and retirement of treasury stock		(49,767)	
Proceeds from common stock transactions	508	2,008	4,921
Tax benefit from stock-based compensation deduction	(3,818)		
Net cash provided by (used in) financing activities	(3,395)	(47,879)	4,820
EFFECT OF CURRENCY TRANSLATION ON CASH	(2,095)	1,165	286

INCREASE IN CASH AND CASH EQUIVALENTS	16,658	21,860	36,348
CASH AND CASH EQUIVALENTS, beginning of year	116,448	94,588	58,240
CASH AND CASH EQUIVALENTS, end of year	\$ 133,106	\$ 116,448	\$ 94,588

**SUPPLEMENTAL DISCLOSURE OF CASH FLOW
INFORMATION:**

Cash paid for interest	\$ 16	\$ 9	\$ 82
Cash paid for income taxes	\$ 6,355	\$ 6,052	\$ 13,432
Cash held in banks outside the United States	\$ 66,148	\$ 73,516	\$ 70,220

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

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ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1. COMPANY OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

We design, manufacture, sell and support industrial power conversion products that transform power into various usable forms. Our products enable manufacturing processes that use thin-film deposition for various products, such as semiconductor devices, flat panel displays, solar panels and architectural glass, as well as grid-tie power conversion in the solar market. We also supply gas flow control technology and thermal instrumentation products for control and detection of gases in the thin-film deposition process for these same markets. Our network of global service support centers provides local repair and field service capability in key regions. Our installed base provides a recurring revenue opportunity as we offer repair services, conversions, upgrades and refurbishments to companies using our products.

BASIS OF PRESENTATION The consolidated financial statements include the accounts of Advanced Energy Industries, Inc. and its wholly-owned subsidiaries (collectively, the Company). All intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are stated in United States dollars and are prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP).

ESTIMATES AND ASSUMPTIONS The preparation of our consolidated financial statements in conformity with U.S. GAAP 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 financial statements and the reported amounts of revenue and expenses during the reporting period. Significant estimates are used when establishing allowances for doubtful accounts, determining useful lives for depreciation and amortization, assessing the need for impairment charges, establishing warranty reserves, establishing the fair value of investments, the fair value and forfeiture rate of stock-based compensation, accounting for income taxes, and assessing excess and obsolete inventory. Management evaluates these estimates and judgments on an ongoing basis and bases its estimates on historical experience, current conditions and various other assumptions that are believed to be reasonable under the circumstances. The results of these estimates form the basis for making judgments about the carrying values of assets and liabilities as well as identifying and assessing the accounting treatment with respect to commitments and contingencies. Actual results may differ from these estimates under different assumptions or conditions.

REVENUE RECOGNITION We recognize revenue when all four revenue recognition criteria have been met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller's price to buyer is fixed or determinable; and collectability is reasonably assured. Our shipping terms are customarily FOB shipping point or equivalent terms. Our revenue recognition policy generally results in revenue recognition at the following points: (1) for all transactions where legal title and/or risk of loss passes to the customer upon shipment, we recognize revenue upon shipment; and (2) for transactions where legal title and/or risk of loss does not pass at shipment, revenue is recognized when legal title passes to the customer, which is generally at customer receipt of the product.

We maintain a worldwide support organization in seven countries, including the United States, China, Japan, Korea, Taiwan, Germany and England. These services include warranty and non-warranty repair services, upgrades and refurbishments on the products we sell. We also provide our customers with extended warranty and preventive maintenance service contract options on the products we sell. Repairs that are covered under our standard warranty do not generate revenue. However, revenue from repair services that are non-warranty in nature or manifest from an extended warranty or preventive maintenance contract are recognized as follows:

Non-warranty repair service recognized as the work is performed, on a time and materials basis.

Extended warranty revenue recognized ratably over the course of the extended warranty time period.

Maintenance service contracts recognized ratably over the course of the service contract time period.

Based on the credit worthiness of certain customers, we may require our customers to pay for a portion or all of their purchases prior to the manufacture or shipping of these products. Cash payments received prior to shipment are

recorded as customer deposits

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and deferred revenue and then recognized as revenue as appropriate based upon the transfer of title of the products. We do not offer price protection to customers, or allow returns, unless covered by our normal policy for repair of defective products.

SHIPPING AND HANDLING COSTS - Amounts billed to customers for shipping and handling are recorded in sales. Shipping and handling costs incurred by the Company for the delivery of products to customers are included in cost of sales.

WARRANTY COSTS We offer warranty coverage for a majority of our products for periods typically ranging from 12 to 24 months after shipment. We warrant our solar inverter for five years, and also offer extended warranties for our Solaron products in increments of five years up to an additional ten years. We estimate the anticipated costs of repairing products under warranty based on the historical or expected cost of the repairs and expected failure rates. The assumptions used to estimate warranty accruals are reevaluated quarterly, at a minimum, in light of actual experience and, when appropriate, the accruals or the accrual percentage is adjusted based on specific estimates of project repair costs and quantity of product returns. Our determination of the appropriate level of warranty accrual is based on estimates of the percentage of units affected and the repair costs. Estimated warranty costs are recorded at the time of sale of the related product, and are recorded within cost of sales in the consolidated statements of operations.

The following summarizes the activity in our warranty reserves during 2009, 2008 and 2007:

	2009	2008	2007
		(In thousands)	
Balance at beginning of period	\$ 6,189	\$ 8,812	\$ 7,845
Additions charged to expense	7,759	11,335	11,159
Deductions	(6,825)	(13,958)	(10,192)
Balance at end of period	\$ 7,123	\$ 6,189	\$ 8,812

INVENTORIES - Inventories include costs of materials, direct labor, manufacturing overhead, in-bound freight and duty. Inventories are valued at the lower of cost or market, computed on a first-in, first-out basis and are presented net of reserves for excess and obsolete inventory.

Reserves are provided for excess and obsolete inventory, which are estimated based on a comparison of the quantity of inventory on hand to management's forecast of customer demand. Customer demand is dependent on many factors, including both micro and macroeconomic, and requires us to use significant judgment in our forecasting process.

We must also make assumptions regarding the rate at which new products will be accepted in the marketplace, the rate at which customers will transition from older products to newer products, effect of engineering changes to a product or discontinuance of a product line. If actual market conditions or our customers' product demands are less favorable than those projected, additional valuation adjustments may be necessary.

The following summarizes the activity in our reserve for excess and obsolete inventory during 2009, 2008 and 2007:

	2009	2008	2007
		(In thousands)	
Balance at beginning of period	\$ 12,367	\$ 7,891	\$ 8,594
Additions charged to expense	2,985	5,784	918
Deductions	(3,803)	(1,308)	(1,621)
Balance at end of period	\$ 11,550	\$ 12,367	\$ 7,891

RESEARCH AND DEVELOPMENT EXPENSES Research and development costs are charged to operations as incurred. These costs include internal labor, materials and overhead expenses associated with our ongoing research and development activity.

ALLOWANCE FOR DOUBTFUL ACCOUNTS - Our estimate is based on factors surrounding the credit risk of certain customers, historical collection experience and a review of the current status of trade accounts receivable. It is reasonably possible that our estimate of the allowance for doubtful accounts will change if the financial condition of our customers were to deteriorate, resulting in a reduced ability to make payments.

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The following summarizes the activity in our allowance for doubtful accounts during 2009, 2008 and 2007:

	2009	2008	2007
	(In thousands)		
Balance at beginning of period	\$ 971	\$ 360	\$ 545
Additions charged to expense	2,822	1,654	360
Recoveries charged to expense	(1,047)	(975)	(496)
Deductions	(771)	(68)	(49)
Balance at end of period	\$ 1,975	\$ 971	\$ 360

INCOME TAXES We assess the recoverability of our deferred tax assets on a quarterly basis. Our assessment includes a number of factors, including historical results and income projections for each jurisdiction. The ultimate realization of deferred income tax assets is dependent on the generation of taxable income in appropriate jurisdictions during the periods in which those temporary differences are deductible. Management considers the scheduled reversal of deferred income tax liabilities, projected future taxable income, and tax planning strategies in determining the amount of the valuation allowance. Based on the level of historical taxable income and projections for future taxable income over the periods in which the deferred income tax assets are deductible, management determines if we will realize the benefits of these deductible differences.

In general, we are subject to regular examination of our income tax returns by the Internal Revenue Service and other tax authorities. We regularly assess the likelihood of favorable or unfavorable outcomes resulting from these examinations to determine the adequacy of our provision for income taxes. Although we believe our tax estimates and reserves, including those for uncertain tax positions, are reasonable, including those relied upon in the execution of our entity restructuring, there can be no assurance that any final determination will not be materially different from the treatment reflected in our current or historical income tax provisions and accruals, which could materially and adversely affect our results of operations.

The calculation of tax assets and liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a significant impact on our results of operations and financial condition.

STOCK-BASED COMPENSATION - We account for stock compensation plans and our employee stock purchase plan (ESPP) based on the fair value of stock-based awards. The fair value of stock options and purchase rights pursuant to the employee stock purchase plan is estimated using the Black-Scholes valuation model. This model requires the input of highly subjective assumptions, including expected life of the award and expected stock price volatility. The fair value of restricted stock units is determined based upon our closing stock price on the grant date. The fair value of stock-based awards expected to vest is amortized over the requisite service period, typically the vesting period, of the award on a straight-line basis. Our estimate of forfeitures is based on our historical activity, which we believe is indicative of expected forfeitures. In subsequent periods if the actual rate of forfeitures differs from our estimate, the forfeiture rates may be revised, as necessary. Changes in the estimated forfeiture rates can have a significant effect on share-based compensation expense since the effect of adjusting the rate is recognized in the period the forfeiture estimate is changed.

COMMITMENTS AND CONTINGENCIES - From time to time we are involved in disputes and legal actions arising in the normal course of our business. While we currently believe that the amount of any ultimate loss would not be material to our financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate loss could have a material adverse effect on our financial position or reported results of operations in a particular quarter. An unfavorable decision, particularly in patent litigation, could require material changes in production processes and products or result in our inability to ship products or components found to have violated third-party patent rights. We accrue loss contingencies when it is probable that a loss has occurred or will occur and the amount of the loss can be reasonably estimated. Our estimates of probability of losses are subjective, involve significant judgment and uncertainties and are based on the best information we have at any given point in

time. Resolution of these uncertainties in a manner inconsistent with our expectations could have a significant impact on our results of operations and financial condition.

CASH AND CASH EQUIVALENTS - We consider all amounts on deposit with financial institutions and highly liquid investments with an original maturity of 90 days or less to be cash equivalents.

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CONCENTRATIONS OF CREDIT RISK - Financial instruments, which potentially subject the Company to credit risk, include cash and cash equivalents, marketable securities and trade accounts receivable. We maintain cash and cash equivalents, marketable securities and other financial instruments with various major financial institutions. We perform periodic evaluations of the relative credit standing of these financial institutions to limit the amount of credit exposure with any one institution. Sales by our foreign subsidiaries are primarily denominated in currencies other than the United States dollar. We established an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

FORWARD CONTRACTS - We transact business in various foreign countries. Our primary foreign currency cash flows are generated in countries in Asia and Europe. It is highly uncertain how currency exchange rates will fluctuate in the future. Periodically, we enter into various foreign currency forward exchange contracts to mitigate risk of currency fluctuations in the British pound, European euro, Japanese yen, Taiwanese dollar and South Korean won. We utilize foreign currency forward contracts to hedge foreign currency-denominated intercompany payables and receivables. To date, we have not hedged forecasted transactions or firm commitments denominated in foreign currencies and therefore, financial reporting of our foreign operations is subject to foreign currency risk. We do not invest in contracts for speculative purposes.

FAIR VALUE OF INVESTMENTS We value our financial assets and liabilities using fair value measurements. Fair value is based on the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. In order to increase consistency and comparability in fair value measurements, a fair value hierarchy is used that prioritizes observable and unobservable inputs used to measure fair value into three broad levels, which are described below:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

Level 2: Observable prices that are based on inputs not quoted in active markets, but corroborated by direct or indirect market data.

Level 3: Unobservable inputs, developed using our estimates and assumptions, which reflect those that market participants would use. Such inputs are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

The fair value of our ARS and the Put Agreement were determined using Level 3 inputs. Some of the inputs into the discounted cash flow models we use are unobservable in the market and have a significant effect on valuation. The assumptions used in preparing the models include, but are not limited to, periodic coupon rates, market required rates of return and the expected term of each security. The coupon rate was estimated using implied forward rate data on interest rate swaps and United States treasuries, and limited where necessary by any contractual maximum rate paid under a scenario of continuing auction failures. We believe implied forward rates inherently account for a lack of liquidity. In making assumptions of the required rates of return, we considered risk-free interest rates and credit spreads for investments of similar credit quality. The expected term for the ARS was based on a weighted probability-based estimate of the time the principal will become available to us with and without exercising our Put Agreement. The expected term for the Put Agreement was based on the earliest date on which we can exercise our put. Any change to these inputs will affect the fair value of the ARS and the Put Agreement and will affect our reported earnings. However, we do not expect changes in the inputs or reported earnings to affect our liquidity.

PROPERTY AND EQUIPMENT - Property and equipment is stated at cost or estimated fair value if acquired in a business combination. Depreciation is computed using the straight-line method over twenty to forty years for buildings; three to ten years for machinery, equipment, furniture and fixtures and vehicles; and three years for computer and communication equipment. Amortization of leasehold improvements and leased equipment is calculated using the straight-line method over the lease term or the estimated useful life of the assets, whichever period is shorter. Additions, improvements, and major renewals are capitalized, while maintenance, repairs, and minor renewals are expensed as incurred. When depreciable assets are retired, or otherwise disposed of, the cost and related accumulated depreciation are removed from the accounts and any related gains or losses are included in the consolidated statement of income. Property and other long-lived assets are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

GOODWILL IMPAIRMENT We historically performed a goodwill impairment analysis using the two-step method on an annual basis as of October 31 and whenever events or changes in circumstances indicated that the carrying value may not be recoverable. The recoverability of goodwill is measured by comparing the Company's carrying amount, including goodwill, to its fair market value.

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As of October 31, 2008, and again as of December 31, 2008, after completing the first step of the impairment test, no indication of impairment existed because our market capitalization exceeded our carrying value as of those dates. However, based upon a combination of factors subsequent to December 31, 2008, including a significant decline in market capitalization below our carrying value, the deteriorating macro-economic environment, which had resulted in a significant decline in customer demand, and illiquidity in the overall credit markets, we concluded that sufficient indicators existed to require us to perform an interim goodwill impairment analysis at February 28, 2009.

We determined our fair market value at February 28, 2009 based on our market capitalization, and an average weighting of both projected discounted future cash flows and the use of comparative market multiples and relative control premiums. The use of comparative market multiples (the market approach) compares the Company to other comparable companies based on valuation multiples to arrive at a fair value. The use of discounted cash flows is based on assumptions that are consistent with our estimates of future growth and the strategic plan used to manage the underlying business, and also includes a probability-weighted expectation as to our future cash flows. Factors requiring significant judgment include assumptions related to future growth rates, discount factors, and tax rates, along with other considerations.

Having determined that our goodwill was potentially impaired, we began performing the second step of the goodwill impairment analysis which involves allocating the overall estimated fair value of the Company to all of our assets and liabilities other than goodwill (including both recognized and unrecognized intangible assets) and comparing the residual amount to the carrying value of goodwill. In March 2009, we determined that our goodwill was fully impaired and recorded a non-cash goodwill impairment charge of approximately \$63.3 million for the three months ended March 31, 2009.

TAXES COLLECTED FROM CUSTOMERS - In the course of doing business we collect various taxes from customers including, but not limited to, sales taxes and value added taxes. It is our policy to record these on a net basis in the consolidated statement of operations and, therefore, we do not include taxes collected from customers as a component of revenue.

FOREIGN CURRENCY TRANSLATION - The functional currency of our foreign subsidiaries is their local currency, with the exception of our manufacturing facility in Shenzhen, China where the United States dollar is the functional currency. Assets and liabilities of international subsidiaries are translated to United States dollars at period-end exchange rates, and statement of operations activity and cash flows are translated at average exchange rates during the period. Resulting translation adjustments are recorded as a separate component of stockholders' equity.

Transactions denominated in currencies other than the local currency are recorded based on exchange rates at the time such transactions arise. Subsequent changes in exchange rates result in foreign currency transaction gains and losses which are reflected in income as unrealized (based on period end translation) or realized (upon settlement of the transactions). Unrealized transaction gains and losses applicable to permanent investments by the Company in its foreign subsidiaries are included as cumulative translation adjustments, and unrealized translation gains or losses applicable to non-permanent intercompany receivables from or payables to us and our foreign subsidiaries are included in income.

Recent Accounting Pronouncements

In April 2009, the Financial Accounting Standards Board (FASB) issued authoritative guidance on accounting for assets acquired and liabilities assumed in a business combination that arise from contingencies, which amends the provisions related to the initial recognition and measurement, subsequent measurement and disclosure of assets and liabilities arising from contingencies in a business combination under previously issued guidance. The authoritative guidance requires that such contingencies be recognized at fair value on the acquisition date if fair value can be reasonably estimated during the allocation period. This authoritative guidance will be effective for us in 2010. We expect that this authoritative guidance will have an impact on our consolidated financial statements, but the nature and magnitude of the specific effects will depend upon the nature, term and size of acquired contingencies, if any.

From time to time, new accounting pronouncements are issued by the FASB or other standards setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, our management believes that the impact of recently issued standards that are not yet effective will not have a material impact on our consolidated financial statements upon adoption.

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Prior to December 31, 2009, the Company had gross deferred income tax assets of \$55.0 million in the United States, a significant portion of which related to net operating loss and tax credit carryforwards, for which a valuation allowance of \$40.3 million had been provided. The ultimate realization of deferred income tax assets is dependent on the generation of taxable income in appropriate jurisdictions during the periods in which those temporary differences are deductible. Management considers the scheduled reversal of deferred income tax liabilities, projected future taxable income and tax planning strategies in determining the amount of the valuation allowance. Based on the level of historical taxable income and projections for future taxable income over the periods in which the deferred income tax assets are deductible, management determines if it is more likely than not that the Company will realize the benefits of these deductible differences. In the second half of 2009, we reconfigured our legal entity structure to realign our Chinese manufacturing operations with the intellectual property utilized in such manufacturing. At December 31, 2009, we transferred the economic rights to our patents and know-how from other affiliates throughout the world, including the parent company. As a result of this realignment, we generated \$84.4 million of taxable income in the United States and Japan and, thus, reversed \$35.3 million of our valuation allowance and will utilize previously reserved deferred tax assets upon filing of our 2009 tax return. Approximately \$10.6 million of the federal net operating losses utilized in 2009 were not previously recognized as deferred tax assets due to a limitation regarding recognition of the tax benefit of the deduction associated with stock option exercises. The remaining \$5.0 million valuation allowance primarily relates to a subsidiary with limitations on utilization of pre-acquisition losses.

The provision for income taxes for the years ended December 31, 2009, 2008 and 2007 was, as follows:

	Years Ended December 31,		
	2009	2008	2007
	(In thousands)		
Federal	\$ 1,018	\$ 7,312	\$ 5,363
State and local	(697)	1,200	667
Foreign taxes	5,666	9,274	10,358
	\$ 5,987	\$ 17,786	\$ 16,388
Current	\$ 11,270	\$ 9,969	\$ 11,264
Deferred	(5,283)	7,817	5,125
	\$ 5,987	\$ 17,786	\$ 16,389

The following reconciles our effective tax rate on income from continuing operations to the federal statutory rate for the years ended December 31, 2009, 2008 and 2007:

	Years Ended December 31,		
	2009	2008	2007
	(In thousands)		
Income taxes per federal statutory rate	\$ (33,851)	\$ 5,602	\$ 17,767
State income taxes, net of federal deduction	411	(524)	565
Extraterritorial income exclusion			(340)
Intellectual property transfer	33,130		
Nondeductible goodwill	22,140		
Effect of foreign taxes	306	(4,795)	(1,074)
Change in valuation allowance	(18,360)	17,984	54

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Other permanent items, net	2,211	(481)	(583)
	\$ 5,987	\$ 17,786	\$ 16,389

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The sources of our net deferred income tax assets are summarized as follows:

	December 31,	
	2009	2008
	(In thousands)	
Current:		
Employee bonuses and commissions	\$ 27	\$ 74
Warranty reserve	2,443	2,258
Bad debt reserve	590	234
Vacation accrual	510	901
Restructuring accrual	(103)	501
Excess and obsolete inventory	3,932	4,787
Other	3,345	4,498
Valuation allowance	(1,529)	
Current	\$ 9,215	\$ 13,253
Long-term:		
Net operating loss and tax credit carryforward	\$ 17,507	\$ 23,410
Depreciation and amortization, net	(242)	1,426
Other	3,119	2,823
Valuation allowance	(3,461)	(23,349)
Long-term, net	\$ 16,924	\$ 4,310
Total deferred tax assets, net	\$ 26,138	\$ 17,563

As of December 31, 2009, we had a gross federal net operating loss, foreign tax credit, alternative minimum tax credit and research and development credit carryforwards of approximately \$13.9 million, \$1.3 million, \$2.9 million and \$6.7 million, respectively, which may be available to offset future federal income tax liabilities. All of the gross federal net operating losses are limited by certain provisions of the U.S. tax code which restricts their utilization in the future and a valuation allowance of \$5.0 million has been provided as realization of these benefits is not expected. The federal net operating loss, foreign tax credits and research and development credit carry forwards expire at various dates through December 31, 2029, including \$5.8 million and \$4.6 million of the federal NOL expiring on December 31, 2022 and December 31, 2023, respectively. The alternative minimum tax credit carryforward has no expiration date. The foreign tax credit carry forward expires on December 31, 2029. As of December 31, 2009, we had a gross foreign net operating loss carryforward of \$9.3 million, which may be available to offset future foreign income tax liabilities. Approximately \$1.3 million of the foreign NOL carry forward generated in the United Kingdom has no expiration. The remainder relates to Japan and expires at various dates through December 31, 2029.

Undistributed earnings of foreign subsidiaries are considered to be permanently reinvested and accordingly, no provision for U.S. federal and state income taxes or foreign withholding taxes has been made. These earnings could become subject to U.S. income taxes (subject to a reduction for foreign tax credits) and withholding taxes payable to the various foreign countries if they are remitted as dividends, are loaned to us, or if we sell our stock in the subsidiaries.

The domestic and foreign component of our income (loss) before income taxes for the years ended December 31, 2009, 2008 and 2007, was as follows:

	2009	2008	2007
	(In thousands)		
Domestic	\$ (66,273)	\$ (24,277)	\$ 19,570

Foreign	(30,445)	40,284	31,180
	\$(96,718)	\$ 16,007	\$ 50,750

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Of the \$96.7 million of loss before income taxes recorded in 2009, \$63.3 million related to an impairment of goodwill recorded during the year. Of the \$63.3 million, \$40.6 million related to foreign goodwill and \$22.7 million related to domestic goodwill.

Tax Contingencies

We account for uncertain tax positions by applying a minimum recognition threshold to tax positions before recognizing these positions in the financial statements. Upon adoption on January 1, 2007, we increased the long-term liability associated with uncertain tax positions by approximately \$6 million and also increased the long-term receivable by approximately \$5 million consisting of offsetting tax benefits. The balance of \$1 million was an adjustment to the opening balance of retained earnings on January 1, 2007.

The reconciliation of our tax contingencies is as follows (in thousands):

Balance at January 1, 2009	\$ 13,468
Additions based on tax positions taken during a prior period	
Reductions based on tax positions taken during a prior period	(4,190)
Additions based on tax positions taken during the current period	5,709
Reductions based on tax positions taken during the current period	
Reductions related to settlement of tax matters	
Reductions related to a lapse of applicable statute of limitations	
Balance at December 31, 2009	\$ 14,987

If the \$15.0 million of tax contingencies recorded on our balance sheet reverse, \$6.6 million will affect our effective tax rate. The tax years 2004 through 2009 remain open to examination by the United States and foreign taxing jurisdictions to which we are subject. In accordance with our accounting policy, we recognize accrued interest and penalties related to unrecognized tax benefits as a component of tax expense. We had an immaterial amount of accrued interest and penalties at December 31, 2009. We do not anticipate a material change to the amount of unrecognized tax positions within the next twelve months.

While management believes it has adequately provided for all tax positions, amounts asserted by taxing authorities could materially differ from our accrued positions as a result of uncertain and complex application of tax regulations. Additionally, the recognition and measurement of certain tax benefits includes estimates and judgment by management and inherently includes subjectivity. Accordingly, additional provisions on federal and foreign tax-related matters could be recorded in the future as revised estimates are made or the underlying matters are settled or otherwise resolved.

NOTE 3. BALANCE SHEET DETAIL

	December 31,	
	2009	2008
	(In thousands)	
ACCOUNTS RECEIVABLE		
Domestic	\$ 24,504	\$ 14,903
Foreign	27,738	42,617
Less Allowance for doubtful accounts	(1,975)	(971)
	\$ 50,267	\$ 56,549
PROPERTY AND EQUIPMENT*		
Buildings and Land	\$ 13,251	\$ 13,318
Machinery and equipment	40,319	41,606

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Computer and communication equipment	28,332	29,021
Furniture and fixtures	6,989	7,523
Vehicles	490	496
Leasehold improvements	29,234	28,550
	118,615	120,514
Less accumulated depreciation	(88,001)	(89,192)
	\$ 30,615	\$ 31,322

* Aggregate depreciation expense related to property and equipment was \$8.4 million in 2009, \$9.8 million in 2008, and \$11.2 million in 2007.

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We review our long-lived assets, including intangible assets subject to amortization, which for us are trademarks, for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Recoverability of long-lived assets is measured by a comparison of the carrying amount of the asset group to the future undiscounted net cash flows expected to be generated by those assets. If such assets are considered to be impaired, the impairment charge recognized is the amount by which the carrying amounts of the assets exceeds the fair value of the assets. As a result of the legal entity restructuring and intellectual property transferred from Japan described above, during the fourth quarter of 2009, we tested our long-lived assets in Japan for impairment and determined that there was no impairment.

Goodwill and other intangible assets consisted of the following as of December 31, 2009:

	Gross Carrying Amount	Effect of Changes in Exchange Rates	Impairment and Other Charges	Accumulated Amortization	Net Carrying Amount	Weighted- Average Useful Life in Years
(In thousands, except weighted-average useful life)						
Amortizable intangibles:						
Technology-based	\$ 7,015	\$ 1,543	\$	\$ (8,559)	\$	
Trademarks and other	8,604	3,041		(5,663)	5,982	17
Total amortizable intangibles	15,619	4,585		(14,222)	5,982	
Goodwill	49,581	13,864	(63,445)			
Total goodwill and other intangible assets	\$ 65,200	\$ 18,449	\$ (63,445)	\$ (14,222)	\$ 5,982	

Goodwill and other intangible assets consisted of the following as of December 31, 2008:

	Gross Carrying Amount	Effect of Changes in Exchange Rates	Accumulated Amortization	Net Carrying Amount	Weighted- Average Useful Life in Years
(In thousands, except weighted-average useful life)					
Amortizable intangibles:					
Technology-based	\$ 7,015	\$ 1,552	\$ (8,457)	\$ 110	5
Trademarks and other	8,604	3,215	(5,174)	6,645	17
Total amortizable intangibles	15,619	4,767	(13,631)	6,755	
Goodwill	49,396	16,767		66,163	
Total goodwill and other intangible assets	\$ 65,015	\$ 21,534	\$ (13,631)	\$ 72,918	

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Amortization expense related to intangible assets was \$0.6 million in 2009, \$0.9 million in 2008, and \$1.0 million in 2007. Amortization expense related to our acquired intangible assets fluctuates with changes in foreign currency exchange rates between the United States dollar and the Japanese yen. Estimated amortization expense related to amortizable intangibles for each of the five years 2010 through 2014 and thereafter is as follows:

	Estimated Amortization Expense (In thousands)
2010	\$ 499
2011	499
2012	499
2013	499
2014	499
Thereafter	3,487

Table of Contents**NOTE 5. INVENTORIES**

Inventories are valued at the lower of cost or market and computed on a first-in, first-out (FIFO) basis. Components of inventories were as follows:

	December 31,	
	2009	2008
Parts and raw materials	\$ 25,962	\$ 33,129
Work in process	3,061	2,209
Finished goods	8,095	11,321
	\$ 37,118	\$ 46,659

Inventories include costs of materials, direct labor and manufacturing overhead. Reserves are provided for excess and obsolete inventory, which are estimated based on a comparison of the quantity of inventory on hand to management's forecast of customer demand. Customer demand is dependent on many factors, including both micro and macroeconomic, and requires us to use significant judgment in our forecasting process.

We must also make assumptions regarding the rate at which new products will be accepted in the marketplace, the rate at which customers will transition from older products to newer products, effect of engineering changes to a product or discontinuance of a product line. If actual market conditions or our customers' product demands are less favorable than those projected, additional valuation adjustments may be necessary.

The Company had recorded raw material reserves of \$10.6 million and finished good reserves of \$0.4 million at December 31, 2009, and raw material reserves of \$11.9 million and finished goods reserves of \$0.5 million at December 31, 2008.

NOTE 6. RESTRUCTURING COSTS

Restructuring costs are related to actions we took primarily in response to downturns in the semiconductor capital equipment industry. These costs were incurred to exit an activity or cancel an existing contractual obligation, including the closure of facilities and employee termination related charges.

Throughout 2008 and again in the first nine months of 2009, we implemented cost reduction efforts in response to deteriorating economic conditions and weakening demand from our end markets. Overall, we reduced our global workforce by approximately 455 people, or 27% of total headcount, across all functional areas and geographies since the beginning of 2008. We expect the cost savings from this workforce reduction to be \$20.5 million annually, of which approximately \$7.8 million is a reduction in cost of goods sold, approximately \$7.4 million is a reduction of selling, general and administrative costs and \$5.3 million is a reduction of research and development costs.

As a result of the cost reductions described above, we incurred restructuring costs of \$4.4 million in 2009. The costs incurred were primarily severance and benefits related to reductions in personnel. As of December 31, 2009, we had no remaining outstanding obligations related to severance and benefits payments.

In 2008, we recognized restructuring costs of \$3.5 million, of which \$3.2 million was associated with global cost reduction plans with respect to reductions in personnel implemented at various times throughout the year. The remaining \$0.3 million of restructuring charges recognized in 2008 were a result of a plan to transition the production of a number of our legacy products from our manufacturing facility in Fort Collins, Colorado to our manufacturing facility in Shenzhen, China.

In 2007, we closed our operation in Stolberg, Germany. Related to this closure, we recorded restructuring charges of \$3.3 million, consisting primarily of impairment on real and personal property and employee severance and benefit costs associated with the reduction of employees at the facility.

The following table summarizes the components of the restructuring costs, the payments and non-cash charges, and the remaining accrual as of December 31, 2009, 2008 and 2007:

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	Employee Severance and Termination Costs	Facility Closure & Other Costs	Impairment of Facility-Related Assets and Other	Total Restructuring Charges
	(In thousands)			
Accrual balance December 31, 2006	\$		\$	\$
Total net restructuring charges in 2007	1,879	743	854	3,476
Gain on sale of assets			(189)	(189)
Payments and other settlements in 2007	(1,843)	(743)	(665)	(3,251)
Accrual balance December 31, 2007	36			36
Total net restructuring charges in 2008	3,487			3,487
Payments and other settlements in 2008	(1,698)			(1,698)
Accrual balance December 31, 2008	1,825			1,825
Total charge to operating expense in 2009	4,815			4,815
Payments in 2009	(6,201)			(6,201)
Adjustments in 2009	(439)			(439)
Accrual balance December 31, 2009	\$	\$	\$	\$

NOTE 7. MARKETABLE SECURITIES AND LONG-TERM INVESTMENTS

Investment securities with original maturities of more than three months at time of purchase are considered marketable securities. Investment securities that are not liquid within twelve months are considered long-term investments.

The composition of securities is as follows at December 31, 2009 and December 31, 2008:

	December 31, 2009		December 31, 2008	
	Cost	Fair Value	Cost	Fair Value
	(In thousands)		(In thousands)	
Current:				
Commercial paper	\$ 3,996	\$ 3,996	\$ 1,269	\$ 1,270
Treasury bills			2,792	2,797
Certificates of deposit	5,458	5,458	29,199	29,199
Corporate bonds/notes	7,034	7,028		
Municipal bonds/notes	6,423	6,423		
Auction rate securities	21,650	18,249		
Put agreement		3,247		
Total Current	44,561	44,401	33,260	33,266
Non-current:				
Common stock			4	4
Auction rate securities			30,850	24,938
Put agreement				5,459

Total Non-current			30,854	30,401
Total securities	\$ 44,561	\$ 44,401	\$ 64,114	\$ 63,667

The value and liquidity of these securities are affected by market conditions as well as the ability of the issuer to make principal and interest payments when due, and the functioning of the markets in which these securities are traded.

We previously classified our auction rate securities (ARS) as long-term investments because of our inability to determine when the investments would settle. However, in November 2008, we executed a non-transferrable Auction Rate Securities Rights Agreement (the Put Agreement) with a financial institution that provides us with the ability to sell our ARS to the financial institution, at our sole discretion, and obligates the financial institution to purchase such ARS at par during the period June 30, 2010 through July 2, 2012. Since the period for which this Put Agreement is effective is now within twelve months, we have reclassified our auction rate securities and the Put Agreement as current assets.

Upon executing the Put Agreement, we determined that an impairment should be recorded on our ARS in the fourth quarter of 2008, since we did not intend to hold the ARS until the value fully recovered. At that time, we also recorded the Put Agreement in

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long-term investments at its fair value. At inception, we recognized a gain equal to the fair value of the Put Agreement in other income. The fair value of our ARS and the Put Agreement were determined using Level 3 inputs. Some of the inputs into the discounted cash flow models we use are unobservable in the market and have a significant effect on valuation. The assumptions used in preparing the models include, but are not limited to, periodic coupon rates, market required rates of return and the expected term of each security. The coupon rate was estimated using implied forward rate data on interest rate swaps and United States treasuries, and limited where necessary by any contractual maximum rate paid under a scenario of continuing auction failures. We believe implied forward rates inherently account for a lack of liquidity. In making assumptions of the required rates of return, we considered risk-free interest rates and credit spreads for investments of similar credit quality. The expected term for the ARS was based on a weighted probability-based estimate of the time the principal will become available to us with and without exercising the Put Agreement. The expected term for the Put Agreement was based on the earliest date on which we can exercise our put. Other than via the Put Agreement, the principal could become available under three different scenarios: (1) the ARS is called; (2) the principal has reached maturity; and (3) auctions have resumed and are successful.

As of December 31, 2009, management does not believe that any of the underlying issuers of the ARS, the insurers of the ARS, or the issuer of the Put Agreement are presently at risk or that the underlying credit quality of the issuers of the assets backing the ARS will affect the Company's ability to realize the value of the investments at June 30, 2010.

Financial assets carried at fair value as of December 31, 2009 are classified as follows:

	Level 1	Level 2	Level 3	Total
Auction rate securities	\$	\$	\$ 18,249	\$ 18,249
Put agreement			3,247	3,247
Certificates of deposit	5,458			5,458
Commercial paper	3,996			3,996
Municipal bonds	6,423			6,423
Corporate bonds	7,028			7,028
Total	\$ 22,905	\$	\$ 21,496	\$ 44,401

The following table reconciles the December 31, 2008 and December 31, 2009 balances for items measured at fair value on a recurring basis in the table above that used Level 3 inputs:

	ARS	Put Agreement	Total
Balances at December 31, 2008	\$ 24,938	\$ 5,459	\$ 30,397
Net realized gain (loss) included in other income	711	(417)	294
Purchases, sales, and settlements, net	(7,400)	(1,795)	(9,195)
Balances at December 31, 2009	\$ 18,249	\$ 3,247	\$ 21,496

NOTE 8. STOCK-BASED COMPENSATION***Stock Plans and Employee Stock Purchase Plan***

As of December 31, 2009, we had two active stock plans; the 2008 Omnibus Incentive Plan and the Employee Stock Purchase Plan (ESPP). All new equity compensation grants are issued under the 2008 Omnibus Incentive Plan; however, outstanding grants previously issued under inactive plans will continue to mature in accordance with the respective plans.

Stock Options and Restricted Stock Units (RSUs)

2008 OMNIBUS INCENTIVE PLAN - The 2008 Omnibus Incentive Plan (the Plan) provides officers, directors, key employees and other persons an opportunity to acquire or increase a direct proprietary interest in our operations

and future success. The Board of Directors currently administers the Plan, and makes all decisions concerning which officers, directors, employees and other persons are granted awards, how many to grant to each optionee, when awards are granted, how the plan should be interpreted, whether to amend or terminate the plan, and whether to delegate administration of the plan to a committee. The Plan provides for the issuance of 3,500,000 shares of common stock and provides for the grant of stock options, stock appreciation rights, restricted stock, stock units

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(including deferred stock units), unrestricted stock and dividend equivalent rights. Any of these awards may, but need not, be made as performance incentives to reward attainment of annual or long-term performance goals in accordance with the terms hereof. Stock options granted under the Plan may be non-qualified stock options or incentive stock options, as provided herein, except that stock options granted to outside directors and any consultants or advisers providing services to us shall in all cases be non-qualified stock options. The Plan will terminate on May 7, 2018 unless the administrator terminates the Plan earlier. As of December 31, 2009, 1.2 million shares of common stock were available for grant under the Plan.

A summary of the status of our stock options for the year ended December 31, 2009 is presented below:

	Shares	Weighted-Average Exercise Price
	In thousands, (except share prices)	
Stock options:		
Options outstanding at beginning of period	3,932	\$ 17.42
Options granted	1,437	9.82
Options exercised	(40)	8.03
Options cancelled	(503)	19.12
Options outstanding at end of period	4,826	15.05

Price range of outstanding options \$ 7.15 -\$60.75

The weighted average fair value of options issued to employees was \$5.84, \$6.98, and \$11.59 for the years ended December 31, 2009, 2008 and 2007, respectively. The total intrinsic value of options exercised during the years ended December 31, 2009, 2008 and 2007 was \$0.1 million, \$1.0 million, and \$4.2 million, respectively, determined as of the exercise date. The aggregate intrinsic value of employee options outstanding and exercisable at December 31, 2009 and 2008 was \$4.1 million and \$0.6 million, respectively. As of December 31, 2009, there was \$8.9 million of total unrecognized compensation cost related to stock options granted and outstanding, which is expected to be recognized through fiscal year 2012, with a weighted average remaining vesting period of 2.72 years.

The following table summarizes information about the stock options outstanding at December 31, 2009:

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted-Average Contractual Life	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
	(In thousands, except share prices and lives)				
\$7.15 to \$11.21	1,822	8.02 years	\$ 8.87	543	\$ 8.68
\$11.95 to \$16.13	1,619	8.13 years	13.60	517	14.12
\$16.27 to \$60.75	1,385	4.15 years	24.86	1,194	25.40
	4,826	6.95 years	\$ 15.05	2,254	\$ 18.78

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The fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model and the expected forfeiture rate with the following weighted-average assumptions:

	2009	2008	2007
Risk-free interest rates	2.9%	3.1%	4.7%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	5.7 years	5.5 years	5.5 years
Expected volatility	63.5%	61.9%	65.5%
Expected forfeiture rate	28.3%	26.0%	22.0%

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The fair value of our RSUs is determined based upon the closing fair market value of our common stock on the grant date. As of December 31, 2009, there was \$1.3 million of total unrecognized compensation cost, net of expected forfeitures related to non-vested RSUs granted, which cost is expected to be recognized over a weighted average period of 2.32 years. During the years ended December 31, 2009 and 2008, the total fair value of RSUs that vested was \$1.6 million and \$1.8 million, respectively. Restricted stock units granted to employees situated at our China locations are usually settled in cash. The fair value of these awards as of December 31, 2009 was \$0.1 million and is recorded as a long-term liability.

A summary of the status of our non-vested RSUs as of December 31, 2009, and changes during the year then ended are presented below:

	Shares (in thousands, except fair values)	Weighted- Average Grant-date Fair Value
Non-vested RSUs outstanding December 31, 2008	395	\$ 15.26
RSUs granted	200	\$ 9.76
RSUs vested	(165)	\$ 9.38
RSUs forfeited	(45)	\$ 17.15
Non-vested RSUs outstanding December 31, 2009	385	\$ 15.08

Employee Stock Purchase Plan (ESPP)

The ESPP, a stockholder-approved plan, provides for the issuance of up to 500,000 shares of common stock. Employees are eligible to participate in the ESPP if employed by us for at least 20 hours per week during at least five months per calendar year. Participating employees may contribute the lesser of 5% of their earnings or \$1,250 per six-month period withheld. The purchase price of common stock purchased under the ESPP is equal to the lower of the fair market value on the commencement date of each offering period or the relevant purchase date. Each plan period is six months. At December 31, 2009, approximately 27,877 shares remained available for future issuance under the ESPP.

Purchase rights granted under the ESPP are valued using the Black-Scholes model. As of December 31, 2009, there was an immaterial amount of total unrecognized compensation cost related to the ESPP that is expected to be recognized over a remaining period of four months. For the year ended December 31, 2009, the total compensation expense related to the ESPP was immaterial. Total compensation expense was \$0.1 million for each year ended December 31, 2008 and 2007.

The fair value of each purchase right granted under the ESPP was estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2009	2008	2007
Risk-free interest rates	2.3%	1.8%	4.5%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	0.5 years	0.5 years	0.5 years
Expected volatility	63.5%	61.9%	60.5%

NOTE 9. EARNINGS PER SHARE

Basic earnings per share (EPS) is computed by dividing income available to common stockholders by the weighted-average number of common shares outstanding during the period. The computation of diluted EPS is similar to the computation of basic EPS except that the numerator is increased to exclude charges which would not have been incurred, and the denominator is increased to include the number of additional common shares that would have been

outstanding (using the if-converted and treasury stock methods), if securities containing potentially dilutive common shares (stock options and restricted stock units) had been converted to such common shares, and if such assumed conversion is dilutive.

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As of December 31, 2009, stock options and restricted stock units relating to an aggregate of approximately 5.2 million shares were outstanding. All potentially dilutive common shares were excluded from the computation as the effect of including the instruments in the computation would be anti-dilutive due to our net loss for the period.

As of December 31, 2008, stock options and restricted stock units relating to an aggregate of approximately 4.3 million shares were outstanding. All potentially dilutive common shares were excluded from the computation as the effect of including the instruments in the computation would be anti-dilutive due to our net loss for the period.

As of December 31, 2007, stock options and restricted stock units relating to an aggregate of approximately 3.7 million shares were outstanding, of which 3.2 million shares for the period are not included in the computation of diluted earnings per share because the exercise price exceeded the average price per share for the period.

The following is a reconciliation of the numerators and denominators used in the calculation of basic and diluted EPS for the years ended December 31, 2009, 2008 and 2007:

	Years Ended December 31,		
	2009	2008	2007
	(In thousands, except per share data)		
Earnings per common share basic			
Net income (loss)	\$ (102,705)	\$ (1,779)	\$ 34,361
Weighted average common shares outstanding	41,966	42,537	45,156
Earnings (loss) per common share basic	\$ (2.45)	\$ (0.04)	\$ 0.76
Earnings per common share diluted			
Net Income (loss)	\$ (102,705)	\$ (1,779)	\$ 34,361
Weighted average common shares outstanding	41,966	42,537	45,156
Effect of dilution:			
Stock option and restricted stock units			548
Adjusted weighted average common shares outstanding	41,966	42,537	45,704
Earnings (loss) per common share diluted	\$ (2.45)	\$ (0.04)	\$ 0.75

In December 2007, the Board of Directors authorized a program to repurchase up to \$75 million of our common stock over a twelve month period. Under this program we repurchased and retired 3,775,000 shares of our common stock for a total of \$49.8 million. We suspended this stock repurchase program in April 2008.

All shares repurchased were executed in the open market and no shares were repurchased from related parties. Repurchased shares were retired and assumed the status of authorized and unissued shares.

NOTE 10. RETIREMENT PLANS

We have a 401(k) profit sharing and retirement savings plan covering substantially all full-time US employees. Participants may defer up to the maximum amount allowed as determined by law. Participants are immediately vested in their contributions. Profit sharing contributions to the plan, which are discretionary, are approved by the Board of Directors.

For the years ended December 31, 2008 and 2007, the Company's contribution for participants in its 401(k) plan was 50% matching on contributions by employees up to 6% of the employee's compensation. Subsequent to January 31, 2009, there were no contributions for participants in 2009.

The Company's total contributions to the plan were approximately \$0.1 million in 2009 and \$1.3 million, in both 2008 and 2007. Vesting in the profit sharing contribution account is based on years of service, with most participants fully vested after four years of credited service.

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We are involved in disputes and legal actions from time to time in the ordinary course of business.

During 2008, the Customs Office of Taipei, Taiwan issued a series of orders to our Taiwanese subsidiary, Advanced Energy Taiwan, Ltd., requiring that certain of our products manufactured in mainland China and allegedly imported without proper authorization be removed from Taiwan. We have protested the orders based upon recent rulings of the Taiwan Bureau of Foreign Trade that the products were authorized for unrestricted import. We originally appealed to the Taiwan High Administrative Court which ruled against us in May 2009. We then appealed that decision to the Taiwan Supreme Administrative Court and it remains pending. We have previously recorded a charge of \$0.3 million as our best estimate of the amount we are likely to pay to resolve this matter. The maximum penalty related to this matter is \$2.3 million if the Customs Office determines that all of our products were not in compliance with the removal orders. We believe the likelihood of the Customs Office determining that all of our products were not in compliance with the removal orders to be remote.

PURCHASE COMMITMENTS

We have firm purchase commitments and agreements with various suppliers to ensure the availability of components. The obligation at December 31, 2009 under these arrangements is approximately \$32.7 million. Substantially all amounts under these arrangements are due in the next twelve months. Actual expenditures will vary based upon the volume of the transactions and length of contractual service provided. In addition, the amounts paid under these arrangements may be less in the event that the arrangements are renegotiated, settled, or cancelled. Certain agreements provide for potential cancellation penalties. Our policy with respect to all purchase commitments is to record losses, if any, when they are probable and reasonably estimable. We believe we have adequate provision for potential exposure related to inventory on order which may go unused.

OPERATING LEASES

The Company has various operating leases for automobiles, equipment and office and production facilities. Lease expense under operating leases was approximately \$6.1 million in 2009, \$6.1 million in 2008 and \$5.8 million in 2007.

The future minimum rental payments required under non-cancelable operating leases through 2018 as of December 31, 2009 are as follows:

2010	\$ 6,105
2011	4,584
2012	2,852
2013	2,247
2014	1,494
Thereafter	2,107
	\$ 19,389

The Company finances a portion of its property and equipment under capital lease obligations at interest rates averaging approximately 3%. Pursuant to the capital lease agreements, future minimum lease payments totaling \$0.1 million are due in varying monthly increments through 2013.

NOTE 12. GEOGRAPHIC AND SIGNIFICANT CUSTOMER INFORMATION

Our chief operating decision-makers manage our business as a single operating segment, which includes the design, manufacture, sale and support of industrial power conversion products that transform power into various usable forms. We have operations in the United States, Europe and Asia. Enterprise-wide disclosures about product revenues and long-lived assets by geographic area and information relating to major customers are presented below. Revenues are attributed to individual countries based on location of the customer.

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	2009	2008	2007
Sales to external customers:			
United States	\$ 106,113	\$ 186,173	\$ 239,963
Europe	23,105	40,395	37,522
Asia	57,177	102,350	107,214
	\$ 186,395	\$ 328,918	\$ 384,699
*Long-lived assets:			
United States	\$ 12,922	\$ 36,083	\$ 37,225
Europe	522	15,115	16,706
Asia	23,153	53,065	45,985
	\$ 36,597	\$ 104,263	\$ 99,916

* Long-lived assets include property and equipment, goodwill and other intangible assets.

Sales to Applied Materials Inc., our largest customer, were \$37.2 million, or 20%, of total sales, for 2009, \$69.7 million, or 21% of total sales, for 2008, and \$60.9 million, or 29% of total sales, for 2007. Our sales to Applied Materials include products used in semiconductor processing and solar, flat panel display and architectural glass applications. No other customer accounted for 10% or more of our sales during these periods.

NOTE 13. RELATED PARTY TRANSACTIONS

The Company leases its executive offices and manufacturing facilities in Fort Collins, Colorado from two limited liability partnerships in which the Company's Chairman of the Board of Directors holds an interest. The leases relating to these spaces expire in 2010, 2011 and 2016 and, each lease contains annual payments of approximately \$1.0 million.

For the year ended December 31, 2009, approximately \$2.9 million was paid attributable to these leases, and approximately \$3.2 million and \$3.1 million in each of the years ended December 31, 2008 and 2007, respectively. Rent and related amounts are expensed as incurred.

In November 2008, we reimbursed Douglas Schatz, our Chairman of the Board and former Chief Executive Officer, for a \$125,000 filing fee that he paid to the Federal Trade Commission in connection with notifications submitted by us and Mr. Schatz under the Hart-Scott-Rodino Antitrust Improvements Act of 1976. The notifications were required in connection with Mr. Schatz's acquisition of common stock upon the vesting of restricted stock units that had been granted to Mr. Schatz while he was serving as our Chief Executive Officer.

NOTE 14. CREDIT LINE AGREEMENT

On June 2, 2009, pursuant to the Put Agreement, we entered into a Credit Line Account Agreement with UBS Bank. The Credit Line Agreement provides us with an uncommitted, demand revolving line of credit (an intended no net cost loan) of \$16.3 million (75% of par value of our ARS), as determined by UBS Bank in its sole discretion, which is secured by our ARS. Upon our request, UBS Bank may make one or more advances to us. Any interest expense that we incur on the no net cost loan is not expected to exceed the interest income that we receive on the ARS that we have pledged to UBS Bank. If the payments on our ARS are not sufficient to pay the accrued interest on such

advances before a due date, UBS Bank may, in its sole discretion (1) capitalize unpaid interest as an additional advance or (2) require us to make payment of all accrued and unpaid interest. UBS Bank may demand full or partial payment of the no net cost loan, at its sole option and without cause, at any time. UBS Bank may also, at any time, in its discretion, terminate and cancel the no net cost loan. If at any time UBS Bank exercises its right of demand under certain sections of the Credit Line Agreement, then UBS Financial Services Inc. or one of its affiliates shall provide, as soon as reasonably possible, alternative financing on substantially the same terms and conditions as those under the Credit Line Agreement and the Credit Line Agreement will remain in full force and effect until such time as such alternative financing has been established. As of December 31, 2009, no advances were drawn against the line.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

We maintain disclosure controls and procedures that are designed to ensure that the information required to be disclosed in the reports that we file or submit under the Securities Exchange Act of 1934 is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission's rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2009. Based upon this evaluation, management concluded that our disclosure controls and procedures were effective as of December 31, 2009.

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Management's Report on Internal Control over Financial Reporting

It is management's responsibility to establish and maintain adequate internal control over our financial reporting, which is a process designed under the supervision of our Chief Executive Officer and Chief Financial Officer and implemented by our Board of Directors, management and other personnel. Our internal control over financial reporting is designed to provide reasonable assurance concerning the reliability of our financial reporting and the preparation of our financial statements.

Management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our internal control over financial reporting as of December 31, 2009, using the criteria described in *Internal Control-Integrated Framework* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based upon this evaluation, management concluded that our internal control over financial reporting was effective as of December 31, 2009.

Grant Thornton LLP, an independent registered public accounting firm, has audited the consolidated financial statements included in this Form 10-K and, as part of the audit, has issued a report, included herein, on the effectiveness of our internal control over financial reporting as of December 31, 2009.

Changes in Internal Control over Financial Reporting

There was no change in our internal control over financial reporting that occurred during the fourth quarter of 2009 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Limitations on Controls and Procedures

Management has concluded that our disclosure controls and procedures and internal control over financial reporting provide reasonable assurance that the objectives of our control system were met. We do not expect, however, that our disclosure controls and procedures or internal control over financial reporting will prevent or detect all misstatements, errors and fraud, if any. All control systems, no matter how well designed and implemented, have inherent limitations; and no evaluation therefore can provide absolute assurance that every misstatement, error or instance of fraud, if any, or risk thereof, has been or will be prevented or detected. The occurrence of a misstatement, error or fraud, if any, would not necessarily require a conclusion that our controls and procedures are not effective.

ITEM 9B. OTHER INFORMATION

None.

PART III

In accordance with General Instruction G(3) of Form 10-K, certain information required by this Part III is incorporated by reference to the definitive proxy statement relating to our 2010 Annual Meeting of Stockholders (the 2010 Proxy Statement), as set forth below. The 2010 Proxy Statement will be filed with the Securities and Exchange Commission within 120 days after the end of our fiscal year.

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

The information set forth in the 2010 Proxy Statement under the headings "Proposal No. 1/ Election of Directors-Nominees" and "Section 16(a) Beneficial Ownership Reporting Compliance" is incorporated herein by reference. The information under the heading "Executive Officers of the Registrant" in Part I of this Form 10-K is also incorporated herein by reference.

ITEM 11. EXECUTIVE COMPENSATION

The information set forth in the 2010 Proxy Statement under the headings "Executive Compensation" is incorporated herein by reference. The "Stock Performance Graph" is included on page 18 of our 2010 Form 10-K.

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ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information set forth in the 2010 Proxy Statement under the headings "Common Stock Ownership by Management and Other Stockholders" and "Equity Compensation Plan Information" is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

The information is set forth in Note 13 of the Notes to the Consolidated Financial Statements, and in the 2010 Proxy Statement under the caption "Certain Transactions with Management" is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The information set forth in the 2010 Proxy Statement under the caption "Fees Billed by Independent Public Accountants" is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(A) Documents filed as part of this report are as follows:

1. Financial Statements:

Reports of Grant Thornton LLP

Consolidated Financial Statements:

Balance Sheets at December 31, 2009 and 2008

Statements of Operations for each of the three years in the period ended December 31, 2009

Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2009

Statements of Cash Flows for each of the three years in the period ended December 31, 2009

Notes to Consolidated Financial Statements

2. Financial Statement Schedules for each of the three years in the period ended December 31, 2009

NOTE: All schedules have been omitted because they are either not required or the information is included in the financial statements and notes thereto.

(B) Exhibits:

3.1 Restated Certificate of Incorporation, as amended.(1)

3.2 By-laws.(2)

3.3 Amendment to By-laws.(3)

3.4 Second Amendment to the By-laws.(27)

4.1 Form of Specimen Certificate for Common Stock.(2)

10.1 Lease, dated June 12, 1984, amended June 11, 1992, by and between Prospect Park East Partnership and Advanced Energy Industries, Inc., for property located in Fort Collins, Colorado.(2)

- 10.2 Lease, dated March 14, 1994, as amended, by and between Sharp Point Properties, L.L.C., and Advanced Energy Industries, Inc., for property located in Fort Collins, Colorado.(2)

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- 10.3 Lease, dated May 19, 1995, by and between Sharp Point Properties, L.L.C. and Advanced Energy Industries, Inc., for a building located in Fort Collins, Colorado.(2)
- 10.4 Lease dated March 20, 2000, by and between Sharp Point Properties, L.L.C. and Advanced Energy Industries, Inc., for a building located in Fort Collins, Colorado.(7)
- 10.5 Lease dated January 16, 2003, by and between China Great Wall Computer Shenzhen Co., Ltd., Great Wall Limited and Advanced Energy Industries (Shenzhen) Co., Ltd., for a building located in Shenzhen, China.(8)
- 10.6 Form of Indemnification Agreement.(2)
- 10.7 Form of Director Indemnification Agreement.(27)
- 10.8 1995 Stock Option Plan, as amended and restated through February 7, 2001.(9)*
- 10.9 1995 Non-Employee Directors Stock Option Plan, as amended and restated through February 7, 2001.(9)*
- 10.10 2001 Employee Stock Option Plan.(1)*
- 10.11 2002 Employee Stock Option Plan.(1)*
- 10.12 2003 Stock Option Plan.(1)*
- 10.13 Amendment No. 1 to 2003 Stock Option Plan, dated January 31, 2005.(10)*
- 10.14 Form of Stock Option Agreement pursuant to the 2003 Stock Option Plan.(10)*
- 10.15 Amended and Restated 2003 Employees Stock Option Plan.(6)*
- 10.16 2003 Non-Employee Directors Stock Option Plan, as amended and restated.(6)*
- 10.17 Form of Restricted Stock Unit Award Agreement pursuant to the 2003 Non-Employee Directors Stock Option Plan, as amended and restated as of February 15, 2006.(11)*
- 10.18 Form of Restricted Stock Unit Agreement pursuant to the 2003 Non-Employee Directors Stock Option Plan.(12)*
- 10.19 Restricted Stock Unit Agreement pursuant to the 2003 Stock Option Plan.(13)*
- 10.20 2008 Omnibus Incentive Plan.(24)
- 10.21 Non-employee Director Compensation summary.(14)*
- 10.22 Retirement Term Sheet relating to Douglas S. Schatz.(16)
- 10.23 Offer Letter to Hans-Georg Betz dated June 30, 2005.(17)

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- 10.24 Offer Letter to Yuval Wasserman dated December 14, 2009.
- 10.25 Global Supply Agreement by and between Advanced Energy Industries, Inc. and Applied Materials Inc. dated August 29, 2005.(18) +
- 10.26 Shipping Amendment to the Global Supply Agreement by and between Advanced Energy Industries, Inc. and Applied Materials Inc. dated August 29, 2005.(18) +
- 10.27 Settlement Agreement dated October 3, 2005, by and between Advanced Energy Industries, Inc. and MKS Instruments, Inc. and its subsidiary, Applied Science and Technology, Inc.(19)
- 10.28 Non-Employee Director Compensation Structure.(20) *
- 10.29 Leadership Corporate Incentive Plan.*
- 10.30 Executive Change in Control Agreement, dated March 29, 2008, by and among Advanced Energy Industries, Inc. and Hans Georg Betz.(22)
- 10.31 Executive Change in Control Agreement, dated March 29, 2008, by and among Advanced Energy Industries, Inc. and Lawrence D. Firestone.(22)
- 10.32 Executive Change in Control Agreement, dated March 29, 2008, by and among Advanced Energy Industries, Inc. and Yuval Wasserman.(22)
- 10.33 Executive Change in Control Agreement, dated March 29, 2008, by and among Advanced Energy Industries, Inc. and Charles S. Rhoades.(23)
- 10.34 Auction Rate Securities Rights Agreement dated October 8, 2008 by and between Advanced Energy Industries, Inc. and UBS Financial Services, Inc.(28)

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- 10.35 Credit Line Account Application and Agreement for Organizations and Businesses, executed by Advanced Energy Industries, Inc. on April 30, 2009, by and between Advanced Energy Industries, Inc. and UBS Bank USA.(26)
- 10.36 Addendum to Credit Line Account Application and Agreement, executed by Advanced Energy Industries, Inc. on April 30, 2009, by and among Advanced Energy Industries, Inc., UBS Bank USA and UBS Financial Services Inc. (26)
- 10.37 Addendum to Credit Line Agreement, executed by Advanced Energy Industries, Inc. on April 30, 2009, by and between Advanced Energy Industries, Inc. and UBS Bank USA.(26)
- 10.38 Important Notice on Interest Rates and Payments, executed by Advanced Energy Industries, Inc. on April 30, 2009, by and between Advanced Energy Industries, Inc. and UBS Bank USA.(26)
- 14.1 Code of Ethical Conduct, as revised.(21)
- 21.1 Subsidiaries of Advanced Energy Industries, Inc.
- 23.1 Consent of Grant Thornton LLP, Independent Registered Public Accounting Firm.
- 24.1 Power of Attorney.(15)
- 31.1 Certification of the Chief Executive Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 31.2 Certification of the Principal Financial Officer Pursuant to Rule 13a-14(a) under the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
- 32.1 Certification of the Chief Executive Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- 32.2 Certification of the Chief Financial Officer Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
- (1) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended September 30, 2003 (File No. 000-26966), filed November 4, 2003.

- (2) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 33-97188), filed September 2, 1995, as amended.
- (3) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed December 5, 2007.
- (4) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 12, 2005.
- (5) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed July 26, 2006.
- (6) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2007 (File

No. 000-26966),
filed August 3,
2007.

(7) Incorporated by
reference to the
Registrant's
Annual Report
on Form 10-K
for the year
ended
December 31,
2000 (File
No. 000-26966),
filed March 27,
2001.

(8) Incorporated by
reference to the
Registrant's
Annual Report
on Form 10-K
for the year
ended
December 31,
2003 (File
No. 000-26966),
filed
February 24,
2004.

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- (9) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2001 (File No. 000-26966), filed May 9, 2001.

- (10) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed February 3, 2005.

- (11) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed May 31, 2006.

- (12) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2006 (File No. 000-26966), filed August 9, 2006.

- (13) Incorporated by reference to the Registrant's Annual Report on Form 10-K

for the year
ended
December 31,
2005 (File
No. 000-26966),
filed March 28,
2006.

(14) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed February 1,
2006.

(15) Incorporated by
reference to the
Registrant's
Annual Report
on Form 10-K
(File No.
000-26966),
filed March 31,
2005.

(16) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed August 9,
2005.

(17) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed July 6,
2005.

(18) Incorporated by
reference to the
Registrant's

Quarterly Report
on Form 10-Q
for the quarter
ended
September 30,
2005 (File
No. 000-26966),
filed
November 7,
2005.

(19) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed October 7,
2005.

(20) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed July 28,
2006.

(21) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed May 1,
2007.

(22) Incorporated by
reference to the
Registrant's
Current Report
on Form 8-K
(File No.
000-26966),
filed April 4,
2008.

(23) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended March 31, 2008 (File No. 000-26966), filed May 9, 2008.

(24) Incorporated by reference to the Registrant's Quarterly Report on Form 10-Q for the quarter ended June 30, 2008 (File No. 000-26966), filed August 7, 2008.

(25) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed October 29, 2007.

(26) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966), filed June 5, 2009.

(27) Incorporated by reference to the Registrant's Current Report on Form 8-K (File No. 000-26966),

filed
December 14,
2009.

(28) Incorporated by
reference to
Registrant's
Annual Report
on Form 10-K
for the year
ended
December 31,
2008 (File No.
000-26966),
filed
February 27,
2009.

* Compensation
Plan

+ Confidential
treatment has
been granted for
portions of this
agreement.

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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.

ADVANCED ENERGY INDUSTRIES,
INC.
(Registrant)

/s/ Hans Georg Betz
Hans Georg Betz
Chief Executive Officer

Date: February 26, 2010

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.

Signatures	Title	Date
/s/ Hans Georg Betz Hans Georg Betz	Chief Executive Officer and Director	February 26, 2010
/s/ Lawrence D. Firestone Lawrence D. Firestone	Executive Vice President and Chief Financial Officer	February 26, 2010
/s/ Douglas S. Schatz Douglas S. Schatz	Chairman of the Board	February 26, 2010
/s/ Frederick A. Ball Frederick A. Ball	Director	February 26, 2010
/s/ Richard P. Beck Richard P. Beck	Director	February 26, 2010
/s/ Trung T. Doan Trung T. Doan	Director	February 26, 2010
/s/ Edward C. Grady Edward C. Grady	Director	February 26, 2010
/s/ Thomas M. Rohrs Thomas M. Rohrs	Director	February 26, 2010

/s/ Elwood Spedden

Director

February 26,
2010

Elwood Spedden

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