

ADVANCED ENERGY INDUSTRIES INC

Form 424B2

August 12, 2005

Table of ContentsFiled Pursuant to Rule 424(b)(2)
Registration No. 333-110534PROSPECTUS SUPPLEMENT
(To Prospectus Dated November 14, 2003)**10,000,000 Shares
Advanced Energy Industries, Inc.
Common Stock
\$9.75 per share**

We are selling 10,000,000 shares of our common stock. We have granted the underwriters an option to purchase up to 1,500,000 additional shares of common stock to cover over-allotments.

Our common stock is quoted on the Nasdaq National Market under the symbol AEIS. The last reported sale price of our common stock on the Nasdaq National Market on August 11, 2005 was \$10.15 per share.

Investing in our common stock involves risks. See Risk Factors beginning on page S-9 of this prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the related prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

	Per Share	Total
Public Offering Price	\$ 9.7500	\$ 97,500,000
Underwriting Discount	\$ 0.4875	\$ 4,875,000
Proceeds to Advanced Energy Industries, Inc. (before expenses)	\$ 9.2625	\$ 92,625,000

The underwriters expect to deliver the shares to purchasers on or about August 17, 2005.

Sole Book-Runner

Citigroup
Adams Harkness
August 11, 2005

Lehman Brothers
Needham & Company, LLC

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with different information. We are not making an offer of these securities in any state where the offer is not permitted. You should not assume that the information contained in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date on the front of this prospectus supplement. Information in this prospectus supplement updates and modifies the information in the accompanying prospectus.

TABLE OF CONTENTS

	Page
Prospectus Supplement	
<u>About This Prospectus Supplement</u>	S-1
<u>Prospectus Supplement Summary</u>	S-2

<u>Special Note Regarding Forward-Looking Statements</u>	S-8
<u>Risk Factors</u>	S-9
<u>Use of Proceeds</u>	S-17
<u>Price Range of Common Stock</u>	S-17
<u>Dividend Policy</u>	S-18
<u>Capitalization</u>	S-19
<u>Management</u>	S-20
<u>Underwriting</u>	S-22
<u>Legal Matters</u>	S-24
<u>Financial Statements</u>	S-24
<u>Where You Can Find More Information</u>	S-25
<u>Incorporation by Reference</u>	S-25
<u>Consolidated Financial Statements</u>	F-1

Page

Prospectus

<u>About This Prospectus</u>	1
<u>About Advanced Energy Industries, Inc.</u>	1
<u>Risk Factors</u>	3
<u>Special Note Regarding Forward-Looking Statements</u>	3
<u>Use of Proceeds</u>	4
<u>Ratio of Earnings to Fixed Charges</u>	4
<u>Description of Capital Stock</u>	5
<u>Description of Debt Securities</u>	6
<u>Plan of Distribution</u>	12
<u>Legal Matters</u>	14
<u>Experts</u>	14
<u>Where You Can Find More Information</u>	14
<u>Incorporation by Reference</u>	15

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This prospectus supplement and the accompanying prospectus are part of a registration statement on Form S-3 (File no. 333-110534) that we filed with the Securities and Exchange Commission utilizing a shelf registration process and that was declared effective on December 11, 2003. Under this shelf registration process, we may, from time to time, sell up to \$250,000,000 of common stock or debt securities, of which this offering is a part.

This document is in two parts. The first part is this prospectus supplement, which describes the terms of this offering of common stock and also adds, updates and changes information contained in the accompanying prospectus and the documents incorporated by reference. The second part is the prospectus, which gives more general information, some of which may not apply to this offering of common stock. To the extent the information contained in this prospectus supplement differs or varies from the information contained in the accompanying prospectus or any document incorporated by reference, the information in this prospectus supplement shall control. You should read both this prospectus supplement and the accompanying prospectus as well as the additional information described under *Where You Can Find More Information* on page S-25 of this prospectus supplement before investing in our common stock.

Unless otherwise stated, information in this prospectus supplement assumes the underwriters will not exercise their over-allotment option to purchase additional shares of our common stock and no other person will exercise any other outstanding options or warrants to purchase shares of our common stock or convert our outstanding convertible subordinated notes into shares of our common stock.

This document includes product names, trade names and trademarks of other companies. All such product names and trademarks appearing in this document are the property of their respective holders.

Table of Contents

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus and may not contain all the information that is important to you. For a more complete understanding of this offering, you are encouraged to read this entire prospectus supplement, the accompanying prospectus, and the documents incorporated by reference. Unless otherwise indicated, we, us, our, or Advanced Energy refer to Advanced Energy Industries, Inc. and its subsidiaries.

Advanced Energy Industries, Inc.

We design, manufacture and support a group of key components and subsystems primarily for vacuum process systems. Our primary products consist of complex power conversion and control systems. Our products also control the flow of gases into the process chambers for semiconductor equipment and provide thermal control and sensing within the chamber. Our customers use our products in plasma-based thin-film processing equipment that is essential to the manufacture of, among other things:

Semiconductor devices for electronics applications;

Flat panel displays for hand-held devices, computer and television screens;

Compact discs, DVDs and other digital storage media; and

Optical coatings for architectural glass, eyeglasses and solar panels.

We also sell spare parts and provide support, educational and consulting services worldwide through our customer service and technical support organization.

We market and sell our products primarily to large, original equipment manufacturers, or OEMs, of semiconductor, flat panel display, data storage and other industrial thin-film manufacturing equipment. Sales to customers in the semiconductor capital equipment industry comprised 53% of our sales in the first six months of 2005 and 60% of our sales in the full year 2004. Sales to customers in the flat panel display equipment industry comprised 21% of our sales in the first six months of 2005 and 14% of our sales in the full year 2004. We sell our products primarily through direct sales personnel to customers in the United States, Europe and Asia and, to a much lesser extent, through distributors. International sales represented approximately 48% of our sales in the first six months of 2005 and 47% of our sales in the full year 2004. Additionally, many of our products sold domestically are placed on systems shipped overseas by our customers.

Our primary manufacturing facility is located in Shenzhen, China. This manufacturing facility, now comprising over 100,000 square feet, was opened in April 2003 with the intention that it would become our high volume manufacturing location. Approximately 75% of the power units and approximately 90% of the mass flow controller units that we sold in June 2005 were manufactured at our Shenzhen, China facility. In connection with the development of this manufacturing facility, we began to source a significant portion of our raw materials, parts, components and subassemblies from high-quality, low-cost Asian suppliers. We continue to have other manufacturing facilities in Fort Collins, Colorado; Stolberg, Germany; Hachioji, Japan; and Vancouver, Washington. Our Fort Collins and Hachioji manufacturing facilities are now focused on new product design and launch programs, integrated services, low volume legacy products and advanced manufacturing processes. We expect that our manufacturing facility in Shenzhen, China and the use of our Asian-based supply chain will permit us to lower our manufacturing, repair and supply costs, and enhance our operational efficiency.

Our Products

Our major products fall into four categories: Power, Flow Control, Thermal Instrumentation and Source Technology. Our product solutions are designed to maximize the efficiency and productivity of our customers' process equipment and lower their cost of ownership of that equipment. We offer our customers

Table of Contents

integrated and innovative solutions, which better enable their advanced processes, such as plasma-based deposition, etch and electroplating. These processes continue to be critical for our semiconductor customers as silicon wafer sizes have increased to 300mm and line widths have decreased below 90 nanometers. Through a focused and significant commitment to research and development, we have created products that have achieved technology and market leadership in their respective categories. In 2004, according to VLSI Research, an independent research firm, we were a market leader, based on revenue, for power and flow control systems for the semiconductor capital equipment and flat panel display manufacturing equipment industries.

Power. Our power systems include direct current, or DC, high power, low and mid frequency, and radio frequency, or RF, power supplies, matching networks and RF instrumentation. Our power systems refine, modify and control the raw electrical power from a utility and convert it into power that is uniform, predictable and repeatable. Our power systems are primarily used by semiconductor and flat panel display manufacturers in the following applications: physical vapor deposition, or PVD; chemical vapor deposition, or CVD; reactive sputtering; electroplating; plasma vacuum processes and bias; and oxide, poly and conductor etch. Our products are also used by optical storage and architectural glass manufacturers. According to VLSI Research estimates, our power systems captured a leading market share, based on revenue, of approximately 50% of the DC and RF power subsystems market in 2004.

Flow Control. Our flow control products include thermal mass flow controllers, or MFCs, pressure-based MFCs, multi-gas, multi-range MFCs, liquid MFCs, liquid vapor delivery systems and pressure control systems. Our flow control products control and monitor the flow of high-purity liquids, liquid vapor, and gases encompassing a wide range of input pressures. Our flow control products are primarily used in semiconductor and flat panel display applications, fiber optics, safe delivery system applications, chemical vapor deposition and silica industries. VLSI Research estimated that our flow control products represented approximately 21% of the mass flow controller market, based on revenue, in 2004.

Thermal Instrumentation. Our thermal instrumentation products, primarily used in the semiconductor industry, provide thermal management and control solutions for applications where time-temperature cycles affect productivity and yield. They are used in physical vapor deposition, chemical vapor deposition, rapid thermal processing and other semiconductor applications requiring non-contact temperature measurement, chemical mechanical polishing and lithography.

Source Technology. Our source technology products include plasma and ion beam sources which are used in the direct deposition of thin films of diamond-like carbon, ion-assisted deposition, ion beam etching, optical coating, industrial coating, pre-cleaning, poly-fluorocarbon abatement and chamber cleaning.

Other Products. We also offer DC-to-DC converters specifically designed to power low-voltage, high-current microprocessors, application-specific integrated circuits, logic and memory chips and servers.

Our Markets

Most of our sales have historically been to customers in the semiconductor capital equipment industry. Our products are also used in the flat panel display, data storage and advanced product applications markets. Our objective is to leverage our innovative technology solutions used in our core

Table of Contents

markets to penetrate other adjacent and new high-growth markets. The following table sets forth percentages of our sales by customer type:

	Year Ended December 31,		Six Months Ended June 30,
	2003	2004	2005
Semiconductor capital equipment	59%	60%	53%
Flat panel display	11	14	21
Data storage	10	8	5
Advanced product applications	20	18	21

Semiconductor Capital Equipment Manufacturing Market. We sell our products to semiconductor capital equipment manufacturers primarily for incorporation into equipment used to make integrated circuits. Our power systems provide the energy to drive the chemical reaction for thin-film processes such as deposition and etch. Our flow control products control the fluid or gas being delivered to ensure high-purity, our thermal instrumentation products measure the temperature of the process chamber and our source technology products optimize CVD clean, deposition and etch processes. The precise control over plasma-based processes enables the production of integrated circuits with reduced feature sizes and increased speed and performance. As the semiconductor industry continues to focus on smaller line-widths and manufacturing geometries, our products become increasingly critical components of leading-edge semiconductor capital equipment. We anticipate that the semiconductor capital equipment industry will continue to constitute a substantial part of the market for our products for the foreseeable future.

Flat Panel Display Manufacturing Equipment Market. We sell our products to manufacturers of flat panel displays and flat panel projection devices, which have fabrication processes similar to those employed in manufacturing integrated circuits. Flat panel technology produces bright, sharp, large, color-rich images on flat screens for products ranging from hand-held devices to laptop and desktop computer monitors to plasma and liquid crystal display-screen televisions. The transition to larger panel sizes and higher display resolution is driving the need for tighter process controls to reduce manufacturing costs and defects. We sell our power and MFC products into the major submarkets of the flat panel display industry, including liquid crystal displays; field emitter displays; gas plasma displays; liquid crystal projection; and digital micro-mirror displays.

Data Storage Manufacturing Equipment Markets. We sell products to manufacturers of data storage equipment and data storage devices for use in producing a variety of products, including CDs, CD-ROMs and DVDs; computer hard discs, including both media and thin-film heads; and optical storage media. These products use a 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 denser, thinner and more precise films. The use of equipment incorporating magnetic media to store analog and digital data has expanded with the growth of the laptop, desktop and workstation computer markets and the consumer electronics audio and video markets.

Advanced Product Applications Markets. We sell our products to OEMs and producers of end products in a variety of industrial markets. Thin-film optical coatings are used in the manufacture of many industrial products, including solar panels, architectural glass, eyeglasses, lenses, barcode readers and front surface mirrors. Thin films of diamond-like coatings and other materials are currently applied to products in plasma-based processes to strengthen and harden surfaces on such diverse products as tools, razor blades, automotive parts and hip joint replacements. Other thin-film processes that use our products enable a variety of industrial packaging applications such as decorative wrapping and food packaging. 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 thin films.

Many of these thin-film industrial applications require power levels substantially greater than those used in our other markets.

S-4

Table of Contents

Also included in the advanced product applications markets are our sales to OEMs of industrial laser and medical applications, high-end computing, and automated test equipment products.

Corporate Information

We incorporated in Colorado in 1981 and reincorporated in Delaware in 1995. In 1995, we effected the initial public offering of our common stock. Our executive offices are located at 1625 Sharp Point Drive, Fort Collins, Colorado 80525, and our telephone number is 970-221-4670. Our website address is www.advanced-energy.com. The information available on or through our website is not a part of this prospectus supplement or the accompanying prospectus.

Recent Development

Appointment of Dr. Hans Betz as President and Chief Executive Officer

On August 1, 2005, Dr. Hans Betz became our President and Chief Executive Officer. Dr. Betz has served on our Board of Directors since July 2004. Douglas Schatz retired from the President and Chief Executive Officer position, and he is continuing to serve on our Board of Directors as Non-Executive Chairman.

Table of Contents

The Offering

Common stock offered by 10,000,000 shares
Advanced Energy Industries,
Inc.

Common stock to be outstanding 42,839,899 shares
after the offering

Use of proceeds We intend to use approximately \$68.1 million of the net proceeds of this offering to redeem our 5¹/₄% convertible subordinated notes due 2006, and the remainder for working capital and general corporate purposes, which could include the redemption or repurchase of our outstanding 5% convertible subordinated notes due 2006. Prior to their application, we expect to invest the net proceeds in short-term, interest-bearing, investment-grade securities. See Use of Proceeds.

Nasdaq National Market symbol AEIS

The number of shares of common stock that will be outstanding after the offering is based on 32,839,899 shares outstanding as of August 5, 2005. This number does not include:

3,959,630 shares of common stock subject to options outstanding under our employee and director stock option plans, with a weighted average exercise price of \$18.23 per share;

277,810 shares of common stock subject to restricted stock units outstanding under our 2003 employee stock option plan;

1,298,618 additional shares of common stock available for issuance under our employee and director stock option plans;

166,650 shares of common stock issuable under our employee stock purchase plan;

shares of common stock reserved for issuance upon the conversion of our outstanding 5¹/₄% convertible subordinated notes, with a conversion price of \$49.53 per share; and

shares of common stock reserved for issuance upon the conversion of our outstanding 5% convertible subordinated notes, with a conversion price of \$29.83 per share.

Table of Contents**Summary Consolidated Financial Data**

The following summary consolidated financial data should be read together with Management's Discussion and Analysis of Financial Condition and Results of Operations and our consolidated financial statements and related notes included and incorporated by reference in this prospectus supplement and the accompanying prospectus. The summary consolidated statement of operations data for the year ended December 31, 2004, was derived from our consolidated financial statements audited by Grant Thornton LLP, independent registered public accounting firm. The summary consolidated statement of operations data for the years ended December 31, 2002 and 2003 were derived from our consolidated financial statements audited by KPMG LLP, independent registered public accounting firm. The related audit reports are included and incorporated by reference in this prospectus supplement and incorporated by reference in the accompanying prospectus. The unaudited summary consolidated financial data for the six months ended June 30, 2004 and 2005 and as of June 30, 2005 have been prepared on the same basis as the audited consolidated financial statements included and incorporated by reference in this prospectus supplement and the accompanying prospectus and include all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of our financial position and operating results for the periods presented. Historical results are not necessarily indicative of the results to be expected in the future, and results of interim periods are not necessarily indicative of results to be expected for the entire year. The unaudited as adjusted balance sheet data gives effect to the issuance by us of 10,000,000 shares of our common stock, after deducting underwriting discounts and commissions and estimated offering expenses, at a public offering price of \$9.75 per share, and the application of the net proceeds therefrom.

	Years Ended December 31,			Six Months Ended June 30,	
	2002	2003	2004	2004	2005
(In thousands, except per share data)					
Statement of Operations Data:					
Sales	\$ 238,898	\$ 262,402	\$ 395,305	\$ 213,356	\$ 173,526
Cost of goods sold	170,138	174,455	275,626	137,980	112,403
Gross profit	68,760	87,947	119,679	75,376	61,123
Research and development expenses	48,995	51,647	51,541	26,219	22,031
Selling, general and administrative expenses	66,586	53,951	62,444	30,186	27,959
Total operating expenses	130,745	111,079	121,223	56,812	52,320
(Loss) income from operations	(61,985)	(23,132)	(1,544)	18,564	8,803
Net (loss) income	\$ (41,399)	\$ (44,241)	\$ (12,747)	\$ 11,394	\$ 6,683
Diluted net (loss) earnings per share	\$ (1.29)	\$ (1.37)	\$ (0.39)	\$ 0.34	\$ 0.20
Diluted weighted-average common shares outstanding	32,026	32,271	32,649	33,435	32,986

As of June 30, 2005

Actual As Adjusted

(In thousands)

Balance Sheet Data:

Edgar Filing: ADVANCED ENERGY INDUSTRIES INC - Form 424B2

Cash, cash equivalents and marketable securities	\$ 137,787	\$ 162,266
Working capital	214,740	239,654
Total assets	391,233	415,335
Total debt and capital lease obligations	193,719	127,501
Stockholders' equity	146,135	236,890

S-7

Table of Contents

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus include and incorporate by reference certain 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 prospectus supplement and the accompanying prospectus, other than statements of historical fact, are forward-looking statements. For example, statements relating to our beliefs, expectations, plans and projections are forward-looking 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 contained or incorporated by reference in this prospectus supplement and the accompanying prospectus are expectations or projections relating to:

Our future revenues;

Our future operating expenses and operating results;

Demand for our products and our customers' products in the semiconductor, semiconductor capital equipment and flat panel display industries;

Our recent transition of high-volume manufacturing to Shenzhen, China;

Our recent transition to high-quality, low-cost suppliers in Asia;

Our international operations, including currency fluctuations;

Customer inventory levels, requirements and order levels;

Remediation of material weaknesses in our internal controls over financial reporting;

Sufficiency and availability of raw materials, parts, components and subassemblies;

Our ability to redeem, repurchase or refinance our 5% convertible subordinated notes due in 2006;

Actions of our competitors;

Protection of our existing and future intellectual property; 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, in hindsight, to have been overly optimistic or unachievable include the factors described in the following section entitled Risk Factors. Other factors might also contribute to differences between our forward-looking statements and our actual results. We assume no obligation to update any forward-looking statement or to explain the reasons why our actual results might differ.

Table of Contents

RISK FACTORS

You should carefully consider the risks described below before making an investment decision.

Risks Related to our Business

The semiconductor, semiconductor capital equipment and flat panel display industries are highly cyclical, which impacts our operating results.

Our business and operating results depend in significant part upon capital expenditures by manufacturers of semiconductors and flat panel displays, which in turn depend upon current and anticipated demand for their products. Historically, these industries have been highly cyclical, with recurring periods of over-supply that have had a negative impact on the demand for capital equipment used to manufacture their products.

During periods of declining demand, our customers typically reduce purchases of, and cancel orders for, our products and delay delivery of their own products. We may incur significant charges as we seek to align our cost structure with any such reduction in sales to these customers. In addition, we may not be able to respond adequately or quickly to the declining demand by reducing our costs. We may also be required to record significant reserves for excess and obsolete inventory as demand for our products changes. Our inability to reduce costs and the charges resulting from other actions taken in response to changes in demand for our products would adversely affect our business, financial condition and operating results.

Our quarterly and annual operating results fluctuate significantly and are difficult to predict.

Our operating results may be adversely affected by a variety of factors, many of which are beyond our control and difficult to predict. These factors include:

Fluctuations in demand in the semiconductor, semiconductor capital equipment and flat panel display industries and other industries in which our customers operate;

The timing and nature of orders placed by our customers;

Seasonal variations in capital spending by our customers;

Changes in our customers' inventory management practices;

Customer cancellation or postponement of previously placed orders;

Pricing competition from our competitors;

Customer requests for us to reduce prices, enhance features, improve reliability, shorten delivery times and extend payment terms;

Component shortages or allocations or other factors that result in delays in manufacturing and sales or result in changes to our inventory levels or causes us to substantially increase our spending on inventory;

The introduction of new products by us or our competitors;

Declines in macroeconomic conditions;

Table of Contents

Litigation, especially regarding intellectual property; and

Currency exchange rate fluctuations.

We have recently transferred 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 new operations.

We have invested significant human and financial resources to establish our manufacturing facility in Shenzhen, China. These investments were made with the goal of reducing our labor costs by increasing our workforce in China and correspondingly decreasing our workforce in the United States.

Because our operating history in Shenzhen is limited, we cannot predict the impact that this new facility will have on our operating results. We may continue to incur costs with respect to the integration of this facility and the related workforce. While most of the products we manufacture in Shenzhen have been qualified for many of our customers, we could still incur requalification costs for some customers.

We might not realize all of the intended benefits of transitioning a substantial portion of our supply base to Asian suppliers.

We anticipate purchasing a substantial portion of components for our products from high-quality, low-cost Asian suppliers, by the end of 2005. These components might have unexpected quality problems and require us to incur higher than anticipated test, repair or warranty costs, which would have an adverse effect on our operating results. Customers, including major customers, might not accept our products if they contain these lower-priced components. A delay or refusal by our customers to accept such products might require us to continue to purchase higher-priced components from our existing suppliers or might cause us to lose sales to these customers, which would have an adverse effect on our business, financial condition and operating results.

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 timely manufacture our products depends in part on the timely delivery of raw materials, parts, components and subassemblies from 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 potential risks, including the following:

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

Supply shortages if a sole source provider ceases operations;

Need to fund the operating losses of a sole source provider;

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

Need to qualify alternative suppliers which could be time consuming and lead to delays in 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 successfully qualify additional suppliers and manage relationships with our existing and future suppliers or if our suppliers cannot meet our performance or quality specifications, or timing requirements, we may experience shortages of raw materials, parts, components or subassemblies, increased material costs and shipping delays for our products, which would adversely affect our business, financial condition and operating results and relationships with our current and prospective customers.

Table of Contents

A significant portion of our sales is concentrated among a few customers.

Our ten largest customers accounted for 55% of our total sales during the first six months of 2005 and 59% of our total sales during the full year 2004. Our largest customer, Applied Materials, accounted for 23% of our total sales in the first six months of 2005 and 27% of our total sales in the full year 2004. No other customer represented greater than 10% of our total sales for any of the three years ended December 31, 2004 or for the six months ended June 30, 2005. The loss of any of our significant customers or a material reduction in any of their purchase orders would significantly harm our business, financial condition and results of operations.

Our customers continuously 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 operating expenses in an amount sufficient to offset potential margin declines.

Certain of our largest customers also exert pressure on us to limit the sale of our products to certain OEMs, and to agree to prohibit sales to our end user customer base entirely, among other limitations. Given our size relative to certain of our largest customers, we may be required to agree to limitations of this nature to remain competitive. Limitations imposed on us with respect to our potential customer base could significantly adversely affect our business, financial condition and operating results.

We generally have no written long-term contracts with our customers, which diminishes our ability to plan for future manufacturing needs.

As is typical in our industry, our sales are primarily made on a purchase order basis, and we generally have no written long-term purchase contracts with our customers. As a result, we are limited in our ability to predict the level of future sales or commitments from our current customers, which diminishes our ability to effectively allocate labor, materials and equipment in the manufacturing process. In addition, we may accumulate inventory in anticipation of sales that do not materialize resulting in excess and absolute 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 for 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 operating results 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. Our inability to improve and

Table of Contents

expand our products and product offerings would have an adverse affect on our sales and results of operations.

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.

Our competitive success often depends upon factors outside of our control. For example, in some cases, particularly with respect to mass flow controller products, semiconductor device and flat panel display manufacturers may direct equipment manufacturers to use a specified supplier's product in their equipment at a particular facility. Accordingly, for such products, our success will depend 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. If device manufacturers do not specify the use of our products, our sales may be reduced which would negatively affect our business, financial condition and operating results.

We must achieve design wins to retain our existing customers and to obtain new customers.

The constantly changing nature of semiconductor fabrication and flat panel display technology 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.

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 or profits.

We believe that equipment manufacturers often select their suppliers based on factors such as long-term relationships. 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. If we are not successful in achieving design wins, our business, financial condition and operating results will be adversely impacted.

Material weaknesses in our internal control over financial reporting require us to perform additional analyses and pre and post-closing procedures that if not performed effectively may prevent us from reporting our financial results in an accurate and timely manner.

We have identified the following two material weaknesses in our internal control over financial reporting: a lack of appropriate segregation of duties defined within our enterprise resource planning system, and the combination of a lack of information system integration and uniformity regarding our Japan operations and a lack of sufficient human resources for proper segregation of duties and oversight in Japan. Management also has identified, and is developing remediation plans to address, certain significant deficiencies and other control deficiencies which our management did not determine to be material weaknesses. In addition, our internal control over financial reporting might not prevent or detect all misstatements, including immaterial misstatements and misstatements created by collusion or fraud.

In light of these material weaknesses and the inherent limitations of internal control over financial reporting, we perform additional analyses and other pre and post-closing procedures to ensure that our condensed consolidated financial statements are presented fairly in all material respects in accordance with generally accepted accounting principles in the United States. These procedures include monthly business reviews led by our Chief Executive Officer and monthly operating and financial statement reviews by various levels of our management team, including our executive officers. We also vigorously enforce our policies and code of ethical conduct applicable to our employees, including the obligation to act in good

Table of Contents

faith and with due care in connection with the reporting of our financial results, which enforcement has included reassignment of duties, terminations of employment and other appropriate measures.

If the additional analyses and pre and post-closing procedures are not effective or if actions to remediate these material weaknesses are not successfully implemented or if other material weaknesses are identified in the future, our ability to report our quarterly and annual financial results on a timely and accurate basis could be adversely affected. In addition, if our controls become inadequate because of changes in conditions or our degree of compliance with our own policies or procedures deteriorates, our ability to report our quarterly and annual financial results on a timely and accurate basis could be adversely affected.

Following the application of the net proceeds of this offering, we will have \$121.5 million principal amount of our 5% convertible subordinated notes outstanding. There can be no assurance that we will have sufficient cash to repay this debt on the maturity date.

We will be required to repay our 5% convertible subordinated notes on September 1, 2006, unless the noteholders convert their notes into common stock before the maturity date. There is currently \$121.5 million principal amount outstanding under the notes. Our existing, undrawn \$40.0 million line of credit will expire on July 6, 2006, unless renewed by the lender and us. Noteholders will be unlikely to convert their notes unless our stock price rises above the conversion price of \$29.83 per share. On August 11, 2005 the closing price of our common stock on the Nasdaq National Market was \$10.15 per share. There can be no assurance that we will have sufficient cash to repay these notes when due or be able to refinance them on acceptable terms.

We might not be able to compete successfully in international markets or meet the service and support needs of our international customers.

Our sales to customers outside the United States were approximately 48% in the first six months of 2005 and 47% in the full year 2004. Our success in 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 in enforcement of intellectual property and contract rights in different jurisdictions;

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

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

Collecting past due accounts receivable from foreign customers; and

Changes in tariffs, taxes and foreign currency exchange rates.

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.

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 our forward exchange contracts. Unfavorable

Table of Contents

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 operating results could be 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. 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 operating results.

Changes in the value of the Chinese renminbi 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. The recent revaluation of the renminbi has not had a material impact on our operations. Any further change 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 renminbi to begin to float against the U.S. 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 negatively affecting our financial condition and operating results.

Warranty costs on certain products may be in excess of historical experience.

In recent years, we have experienced higher than expected levels of warranty costs on some products. We have been required to repair, rework and, in some cases, replace these products. Our warranty costs generally increase when we introduce newer, more complex products. We recorded warranty expense of approximately \$6.0 million in the first six months of 2005 and \$10.5 million in the full year 2004. These expenses represented approximately 3.4% of our sales in the first six months of 2005 and 2.6% of our sales in the full year 2004. Within the last several years, our warranty expense has been as high as \$13.2 million, or 5.5% of our total sales, which occurred in 2002. If our level of warranty costs increases in the future, our financial condition and operating results would be adversely affected.

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 United Kingdom, Germany, France and selected countries in Asia, because there are other manufacturers and developers of power conversion and control systems in those countries as well as customers for those systems. If we are unable to protect our intellectual property successfully, our business, financial condition and operating results could be adversely affected.

Intellectual property rights are difficult to enforce in China.

Commercial law in China 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 or otherwise obtain or use our intellectual property. We cannot assure you that we will be

Table of Contents

able to protect our intellectual property rights effectively or have adequate legal recourse in the event that we encounter infringements of our intellectual property under Chinese law.

We have been and continue to be involved in patent litigation, which has resulted in substantial costs and could result in additional costs, restrictions on our ability to sell certain products and an inability to prevent others from using technology we have developed.

MKS Instruments, Inc., or MKS, filed a patent infringement suit against us in the United States District Court in Wilmington, Delaware, alleging that our Xstream With Active Matching Network reactive gas generator products, or Xstream products, infringe patents held by MKS. In July 2004, a jury returned a verdict against us, finding that our Xstream products infringe three MKS patents. We have made a motion to the court for judgment as a matter of law in our favor notwithstanding the verdict, or in the alternative, a new trial on the question of infringement, as well as for the court to consider our challenge to the validity of MKS's patents. A trial on our remaining defenses is scheduled to commence on October 31, 2005. While MKS has requested both injunctive relief and damages against us, the court will address the question of remedies after a final ruling on the merits of the claims presented. If we are unsuccessful, we could be subject to damages and an injunction preventing us from manufacturing and selling Xstream products in the United States in the future.

In August, 2004, MKS filed a petition in the District Court in Mannheim, Germany, alleging infringement by our Xstream products of a counterpart German patent owned by MKS. On April 8, 2005, the Mannheim court issued a judgment against us for infringement of MKS's patent, which did not specify damages. A petition for invalidity of MKS's patent brought by us is still pending before the German Federal Patent Court. Although we may be enjoined from making or selling the Xstream product in Germany, we believe that the impact of an injunction and the scale of any damages award should be minimal because we have not made or sold the product in Germany and have no plans to do so. We continue to make and sell the Xstream product in countries in which MKS has no corresponding patent rights.

On October 21, 2004, one of our competitors, Huettinger Elektronik, and two customers, von Ardenne Anlagentechnik and Interpane Entwicklungen, petitioned for Opposition of our European patent directed to pulsed-DC reactive sputtering technology. In the event we are unsuccessful in defending against this Opposition, our ability to prevent others from using this technology in Europe may be limited.

Further patent litigation might:

Cause us to incur substantial costs in the form of legal fees, fines and royalty payments;

Result in restrictions on our ability to sell certain products;

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

Require us to redesign products or seek alternative technologies.

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

Even apart from patent litigation, our own intellectual property rights may be subject to challenge by other parties. In many countries in which we hold patent rights, for example, procedures are available that permit third parties to contest, oppose, or request reexamination of our issued patents. Defending against these proceedings might cause us to incur substantial costs in the form of legal fees and may result in an inability to prevent others from using technology we have developed.

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

Table of Contents

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:

We could be subject to fines;

Our production could be suspended; or

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

Any inability to comply with current or future regulations, directives and standards could adversely affect our business, financial condition or operating results.

Risks Related to Our Common Stock

We do not intend to pay dividends in the foreseeable future, and therefore investors must rely solely on the market value of our shares to realize a return on their investment.

We have not declared or paid any cash dividends on our shares since we terminated our election to be treated as an S-corporation for tax purposes effective January 1, 1994. We currently intend to retain any future earnings to fund the development and growth of our business and, therefore, do not anticipate paying any cash dividends in the foreseeable future.

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 objects of securities class action litigation. If we were the object of securities class action litigation, it could result in substantial costs and a diversion of our management's attention and resources.

Future sales of our common stock by our Non-Executive Chairman of the Board may negatively affect the market price of our common stock.

Following this offering, Mr. Schatz, our Non-Executive Chairman of the Board, will beneficially own approximately 25.1% of our outstanding common stock. The sale of a substantial amount of the shares owned by him could negatively affect the market price of our common stock. Mr. Schatz may sell up to 850,000 shares of common stock pursuant to a written trading plan pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, as amended, that are not subject to the 90-day lock-up agreement that Mr. Schatz has entered into with the underwriters of this offering and which is described in the Underwriting section on page S-22 of this prospectus supplement.

Our Non-Executive Chairman of the Board owns a significant percentage of our outstanding common stock, which could enable him to control our business and affairs.

Following this offering, Mr. Schatz will beneficially own approximately 25.1% of our outstanding common stock. This stockholding gives Mr. Schatz significant voting power. 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 control our business affairs for the foreseeable future in a manner with which our other stockholders may not agree.

Table of Contents**USE OF PROCEEDS**

The net proceeds from the sale of the shares of our common stock in this offering are estimated to be approximately \$92.1 million (\$106.0 million if the underwriters' over-allotment option is exercised in full), based on a public offering price of \$9.75 per share and after deducting the underwriting discounts and commission and estimated offering expenses.

We intend to use approximately \$68.1 million of the net proceeds of this offering to redeem our 5¹/₄% convertible subordinated notes due 2006, and the remainder for working capital and general corporate purposes, which could include the redemption or repurchase of our outstanding 5% convertible subordinated notes due 2006.

At August 1, 2005, approximately \$66.2 million principal amount of our 5¹/₄% convertible subordinated notes due November 15, 2006 and \$121.5 million principal amount of our 5% convertible subordinated notes due September 1, 2006 remained outstanding. We can redeem our 5¹/₄% convertible subordinated notes at 101.5% of the outstanding principal amount, plus accrued and unpaid interest. Beginning September 1, 2005, we can redeem our 5% convertible subordinated notes at 101% of the outstanding principal amount, plus accrued and unpaid interest. Prior to September 1, 2005, to redeem our 5% convertible subordinated notes, we would be required to pay 102% of the outstanding principal amount, plus accrued and unpaid interest.

We intend to issue a notice of redemption for our 5¹/₄% convertible subordinated notes promptly following the completion of this offering.

Pending their application, we expect to invest the net proceeds of this offering in short-term, interest-bearing, investment-grade securities.

PRICE RANGE OF COMMON STOCK

Our common stock is quoted on the Nasdaq National Market under the symbol AEIS. The following table sets forth, for each of the quarterly periods indicated, the range of high and low closing sale prices of our common stock, as reported (without retail markup or markdown and without commissions) on the Nasdaq National Market. The prices cited below do not necessarily represent actual transactions.

Quarter	High	Low
2003:		
First Quarter	\$ 17.43	\$ 7.91
Second Quarter	16.83	7.37
Third Quarter	24.65	13.56
Fourth Quarter	29.99	18.66
2004:		
First Quarter	\$ 28.19	\$ 19.13
Second Quarter	23.07	12.83
Third Quarter	15.32	8.78
Fourth Quarter	10.97	7.92
2005:		
First Quarter	\$ 9.96	\$ 6.88
Second Quarter	11.10	7.86
Third Quarter (through August 11, 2005)	10.65	7.76

On August 11, 2005, the last sale price of our common stock as reported on the Nasdaq National Market was \$10.15 per share. On August 1, 2005 the number of our common stockholders of record was 813.

Table of Contents

DIVIDEND POLICY

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. Furthermore, our revolving credit facility prohibits the declaration or payment of any cash dividends on our common stock.

S-18

Table of Contents**CAPITALIZATION**

The following table shows our cash, cash equivalents and short-term investments and capitalization as of June 30, 2005 on an actual basis and on an as adjusted basis to give effect to the issuance by us of 10,000,000 shares of our common stock, after deducting underwriting discounts and commissions and estimated offering expenses at a public offering price of \$9.75 per share, and the application of the net proceeds therefrom. This table should be read in conjunction with the Summary Consolidated Financial Data and our financial statements and notes thereto that are included in this prospectus supplement, as well as Management's Discussion and Analysis of Financial Condition and Results of Operations that is incorporated by reference herein.

	As of June 30, 2005	
	Actual	As Adjusted
	(in thousands except per share amounts)	
Cash, cash equivalents and short-term investments	\$ 137,787	\$ 162,266
Senior borrowings and capital leases, net of current portion	\$ 3,280	\$ 3,280
Convertible subordinated notes due 2006 5% notes	121,500	121,500
Convertible subordinated notes due 2006 5 1/4% notes	66,218	
Stockholders' equity:		
Preferred stock, \$0.001 par value, 1,000 shares authorized; no shares issued and outstanding		
Common stock, \$0.001 par value, 70,000 shares authorized; 32,816 shares outstanding; as adjusted 42,816 shares	33	43
Additional paid-in capital	146,276	238,391
Accumulated deficit	(6,112)	(7,482)(1)
Deferred compensation	(1,201)	(1,201)
Unrealized holding gains on available-for-sale securities, net of tax	520	520
Cumulative translation adjustments, net of tax	6,619	6,619
Total stockholders' equity	146,135	236,890
Total capitalization	\$ 337,133	\$ 361,670

(1) The change relates to the expensing of a 1.5% redemption premium of \$993,000 and the write-off of the unamortized deferred debt issuance costs of \$377,000 related thereto.

The number of shares of common stock outstanding is based on 32,816,222 shares outstanding as of June 30, 2005. This number does not include:

3,863,728 shares of common stock subject to options outstanding as of June 30, 2005, under our employee and director stock option plans, with a weighted average exercise price of \$18.56 per share;

227,510 shares of common stock subject to restricted stock units outstanding as of June 30, 2005, under our 2003 employee stock option plan;

1,457,612 additional shares of common stock available as of June 30, 2005 under our employee and director stock option plans;

190,327 shares of common stock issuable under our employee stock purchase plan;

shares of common stock reserved for issuance upon the conversion of our 5¹/₄% convertible subordinated notes, with a conversion price of \$49.53 per share; or

shares of common stock reserved for issuance upon the conversion of our 5% convertible subordinated notes, with a conversion price of \$29.83 per share.

The table above assumes no exercise of the underwriters over-allotment option to purchase an additional 1,500,000 shares of our common stock.

S-19

Table of Contents**MANAGEMENT**

Our directors and executive officers are:

Name	Age	Position
Douglas S. Schatz	59	Non-Executive Chairman of the Board
Hans Betz	59	Chief Executive Officer, President and Director
Richard P. Beck	72	Director
Joseph R. Bronson	57	Director
Barry Z. Posner	56	Director
Elwood Spedden	68	Director
Michael El-Hillow	53	Executive Vice President, Chief Financial Officer
C. Stephen Rhodes	44	Executive Vice President, Products and Operations
James G. Guilmart	50	Senior Vice President, Sales

Douglas S. Schatz is a co-founder of Advanced Energy and has been our Chairman since our incorporation in 1981. Mr. Schatz served as our Chief Executive Officer from our incorporation until his retirement on July 31, 2005. Mr. Schatz also serves as a director of Advanced Power Technology, Inc., a publicly held company that provides high power, high voltage and high performance semiconductors and power modules, and is a member of its nominating committee and the chairman of its compensation committee. Mr. Schatz is also a member of the CEO Committee of the Mountain States Council of the American Electronics Association and serves on the Engineering Advisory Board of Colorado State University.

Hans Betz joined our Board of Directors in July 2004. On August 1, 2005, Dr. Betz became our Chief Executive Officer and President. Dr. Betz had been Chief Executive Officer of West STEAG Partners GmbH, a German-based venture capital company focused on the high-technology industry, a position he had held since August 2001. From January 1996 to July 2001, he was 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 audit and compensation committees. He also serves as a board member and compensation committee member of Steag HamaTech AG, a publicly held supplier of manufacturing equipment and process technology for the manufacture of optical media (CD/DVD) and for processing photomask and wafers for the semiconductor industry.

Richard P. Beck joined Advanced Energy in March 1992 as Vice President and Chief Financial Officer, became Senior Vice President in February 1998 and joined our Board of Directors in September 1995. In October 2001, Mr. Beck retired from the position of Chief Financial Officer, but remained as a Senior Vice President until May 2002. Mr. Beck is Chairman of the Board of Applied Films Corporation, a publicly held manufacturer of flat panel display equipment, and serves on its audit, compensation and nominating and governance committees. He is also a director of TTM Technologies, Inc., a publicly held manufacturer of printed circuit boards, and serves as a member of its nominations and corporate governance committee and as chairman of its audit committee.

Joseph R. Bronson joined our Board of Directors in December 2004. Mr. Bronson is currently President of FormFactor, Inc., a designer and manufacturer of advanced semiconductor wafer probe cards. Mr. Bronson was appointed President of FormFactor in November 2004 and has been a director of FormFactor since April 2002. Prior to becoming President of FormFactor, Mr. Bronson held significant leadership positions with Applied Materials, Inc., a manufacturer of semiconductor capital equipment. Until his resignation from Applied Materials in October 2004, he had served as an Executive Vice President since December 2000 and as its Chief Financial Officer since January 1998. Mr. Bronson is also a director of Jacobs Engineering Group, a diversified technical consulting firm.

Barry Z. Posner joined our Board of Directors in September 2004. Dr. Posner is Dean of the Leavey School of Business at Santa Clara University, a professor of leadership and an award-winning author.

Table of Contents

Dr. Posner has been Dean of the Leavey School of Business since July 1997. Dr. Posner is currently on the editorial review boards of the Journal of Business Ethics and Leadership Review, and section editor for the Journal of Management Inquiry. Dr. Posner also conducts leadership-based workshops for corporations around the world.

Elwood Spedden joined our Board of Directors in September 1995. Mr. Spedden was Chief Executive Officer of Photon Dynamics, Inc., a publicly held manufacturer of flat panel display test equipment, from January 2003 until his retirement in January 2004. From July 1996 to June 1997, Mr. Spedden was a Vice President of KLA-Tencor Semiconductor, a manufacturer of automatic test equipment used in the fabrication of semiconductors.

Michael El-Hillow joined us in November 2001 as Senior Vice President of Finance and Administration and Chief Financial Officer. In February 2003, Mr. El-Hillow was named Executive Vice President. From April 1997 to July 2001, Mr. El-Hillow was Senior Vice President and Chief Financial Officer of Helix Technology Corporation, a manufacturer of vacuum products for semiconductors, flat panel display and data storage markets. He was Senior Vice President and Chief Financial Officer of Spike Broadband Systems, Inc. from July 2001 to October 2001. Prior to his roles at Helix Technology Corporation, he was Vice President, Finance, Treasurer and Chief Financial Officer at A.T. Cross Company, and an audit partner at Ernst & Young LLP. Mr. El-Hillow serves on the board of directors and as chairman of the audit committee of Evergreen Solar, Inc., a manufacturer of solar panels and related products.

C. Stephen Rhoades joined us in September 2002 as Senior Vice President and General Manager of Control Systems and Instrumentation. In November 2004, Mr. Rhoades was named Executive Vice President of Products and Operations. From March 2000 to September 2002, Mr. Rhoades was Vice President, Corporate Development at Portera Systems. Prior to Portera Systems, he was Managing Director of Product Development at Lam Research.

James G. Guilmart joined us in September 1999 as Director of Applied Materials Account Team and was named Senior Vice President of Sales in October 2000. From October 1998 to August 1999, he was Senior Vice President, SAP Business Unit at Siemens Information and Communications Products, LLC. Prior to Siemens, he was Vice President, Business Implementation at Unisys Corporation.

Table of Contents**UNDERWRITING**

Citigroup Global Markets Inc., Lehman Brothers Inc., Adams Harkness, Inc. and Needham & Company, LLC are acting as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the number of shares set forth opposite the underwriter's name.

Underwriter	Number of Shares
Citigroup Global Markets Inc.	4,750,000
Lehman Brothers Inc.	2,850,000
Adams Harkness, Inc.	950,000
Needham & Company, LLC	950,000
Susquehanna Financial Group, Inc.	166,667
The Williams Capital Group, L.P.	166,667
Barrington Research Associates, Inc.	166,666
 Total	 10,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the shares included in this offering are subject to approval of legal matters by counsel and to other conditions. The underwriters are obligated to purchase all the shares (other than those covered by the over-allotment option described below) if they purchase any of the shares.

The underwriters propose to offer some of the shares directly to the public at the public offering price set forth on the cover page of this prospectus supplement and some of the shares to dealers at the public offering price less a concession not to exceed \$0.2779 per share. The underwriters may allow, and dealers may reallow, a concession not to exceed \$0.1000 per share on sales to other dealers. If all of the shares are not sold at the initial offering price, the representatives may change the public offering price and the other selling terms.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to 1,500,000 additional shares of common stock at the public offering price less the underwriting discount. The underwriters may exercise the option solely for the purpose of covering over-allotments, if any, in connection with this offering. To the extent the option is exercised, each underwriter must purchase a number of additional shares approximately proportionate to that underwriter's initial purchase commitment.

We and our executive officers, other than our Chief Technology Officer who is leaving us on or before August 31, 2005, and directors have agreed that, for a period of 90 days from the date of this prospectus supplement, we and they will not, without the prior written consent of Citigroup, dispose of or hedge any shares of our common stock or any securities convertible into or exchangeable for our common stock, except that Douglas Schatz may sell up to 850,000 shares of common stock pursuant to a written trading plan established or to be established on substantially the same terms as his most recent plan, pursuant to Rule 10b5-1 under the Securities Exchange Act of 1934, or the Exchange Act, and Richard Beck may sell up to 19,000 shares of common stock pursuant to a written trading plan established or to be established pursuant to Rule 10b5-1 under the Exchange Act. Our officers and directors are also permitted to transfer shares of common stock as *bona fide* gifts, provided that the donee or donees agree to be bound by the restrictions set forth in the lock-up agreements. Citigroup in its sole discretion may release any of the securities subject to these lock-up agreements at any time without notice.

Each underwriter has represented, warranted and agreed that:

it has not offered or sold and, prior to the expiry of a period of six months from the closing date, will not offer or sell any share included in this offering to persons in the United Kingdom except to
S-22

Table of Contents

persons whose ordinary activities involve them in acquiring, holding, managing or disposing of investments (as principal or agent) for the purposes of their businesses or otherwise in circumstances which have not resulted and will not result in an offer to the public in the United Kingdom within the meaning of the Public Offers of Securities Regulations 1995;

it has only communicated and caused to be communicated and will only communicate or cause to be communicated any invitation or inducement to engage in investment activity (within the meaning of section 21 of the Financial Services and Markets Act 2000 (FSMA)) received by it in connection with the issue or sale of any shares included in this offering in circumstances in which section 21(1) of FSMA does not apply to us;

it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the shares included in this offering in, from or otherwise involving the United Kingdom; and

the offer in The Netherlands of the shares included in this offering is exclusively limited to persons who trade or invest in securities in the conduct of a profession or business (which include banks, stockbrokers, insurance companies, pension funds, other institutional investors and finance companies and treasury departments of large enterprises).

The common stock is quoted on the Nasdaq National Market under the symbol AEIS.

The following table shows the underwriting discounts and commissions that we are to pay to the underwriters in connection with this offering. These amounts are shown assuming both no exercise and full exercise of the underwriters' option to purchase additional shares of common stock.

	Paid by Advanced Energy Industries, Inc.	
	No Exercise	Full Exercise
Per share of common stock	\$ 0.4875	\$ 0.4875
Total	\$ 4,875,000	\$ 5,606,250

In connection with this offering, Citigroup on behalf of the underwriters, may purchase and sell shares of common stock in the open market. These transactions may include short sales, syndicate covering transactions and stabilizing transactions. Short sales involve syndicate sales of common stock in excess of the number of shares to be purchased by the underwriters in the offering, which creates a syndicate short position. Covered short sales are sales of shares made in an amount up to the number of shares represented by the underwriters' over-allotment option. In determining the source of shares to close out the covered syndicate short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option. Transactions to close out the covered syndicate short involve either purchases of the common stock in the open market after the distribution has been completed or the exercise of the over-allotment option. The underwriters may also make naked short sales of shares in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares in the open market after pricing that could adversely affect investors who purchase in the offering. Stabilizing transactions consist of bids for or purchases of shares in the open market while the offering is in progress.

The underwriters also may impose a penalty bid. Penalty bids permit the underwriters to reclaim a selling concession from a syndicate member when Citigroup repurchases shares originally sold by that syndicate member in order to cover syndicate short positions or make stabilizing purchases.

Any of these activities may have the effect of preventing or retarding a decline in the market price of the common stock. They may also cause the price of the common stock to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may

S-23

Table of Contents

conduct these transactions on the Nasdaq National Market or in the over-the-counter market, or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

In addition, in connection with this offering, some of the underwriters (and selling group members) may engage in passive market making transactions in the common stock on the Nasdaq National Market, prior to the pricing and completion of the offering. Passive market making consists of displaying bids on the Nasdaq National Market no higher than the bid prices of independent market makers and making purchases at prices no higher than those independent bids and effected in response to order flow. Net purchases by a passive market maker on each day are limited to a specified percentage of the passive market maker's average daily trading volume in the common stock during a specified period and must be discontinued when that limit is reached. Passive market making may cause the price of the common stock to be higher than the price that otherwise would exist in the open market in the absence of those transactions. If the underwriters commence passive market making transactions, they may discontinue them at any time.

We estimate that the total expenses of this offering will be \$500,000.

The underwriters have performed investment banking and advisory services for us from time to time for which they have received customary fees and expenses. The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business.

This prospectus supplement and the accompanying prospectus in electronic format may be made available on the websites maintained by one or more of the underwriters. The representatives may agree to allocate a number of shares to underwriters for sale to their online brokerage account holders. The representatives will allocate shares to underwriters that may make Internet distributions on the same basis as other allocations. In addition, shares may be sold by the underwriters to securities dealers who resell shares to online brokerage account holders.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

LEGAL MATTERS

The validity of the common stock offered by this prospectus supplement is being passed upon for us by Hogan & Hartson LLP, Los Angeles, California. Davis Polk & Wardwell, Menlo Park, California will pass upon legal matters for the underwriters. Davis Polk & Wardwell has acted as counsel to our audit committee in connection with certain matters.

FINANCIAL STATEMENTS

The consolidated financial statements of Advanced Energy Industries, Inc. as of December 31, 2004 and for the year then ended are set forth in this prospectus supplement and incorporated by reference in the registration statement that contains this prospectus supplement and have been audited by Grant Thornton LLP, independent registered public accounting firm, as indicated in their reports with respect thereto.

The consolidated financial statements of Advanced Energy Industries, Inc. as of December 31, 2003, and for each of the years in the two-year period ended December 31, 2003, as set forth in this prospectus supplement and incorporated by reference in the registration statement that contains this prospectus supplement, have been audited by KPMG LLP, independent registered public accounting firm, as indicated in their report with respect thereto. KPMG LLP's report dated February 20, 2004 contains an explanatory paragraph relating to the fact that effective January 1, 2002 the Company adopted Statements of Financial Accounting Standards No. 141, *Business Combinations*, and No. 142, *Goodwill and Other Intangible Assets*. KPMG LLP's report dated February 20, 2004 contains an explanatory paragraph relating

Table of Contents

to the fact that effective January 1, 2003, Advanced Energy Industries, Inc. and subsidiaries adopted the provisions of Statement of Financial Accounting Standards No. 145, *Rescission of FASB Statements 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other documents with the Securities and Exchange Commission, or the SEC. We also submit copies of such reports, statements and documents to the Nasdaq Stock Market. You may access any of these reports, statements or documents by:

Reading or copying them at the SEC's public reference office located at 100 F Street, NE, Room 1580, Washington, D.C. 20549;

Writing to the SEC's public reference office and requesting copies, with payment of a duplicating fee;

Reading or copying them at the office of Nasdaq Operations, 1735 K Street, N.W., Washington, D.C. 20006;

Visiting the SEC's website at <http://www.sec.gov>; or

Visiting our website at <http://www.aei.com>. The information available on or through our website is not a part of this prospectus supplement or the accompanying prospectus.

Please call the SEC at 1-800-SEC-0330 for information on the public reference office.

INCORPORATION BY REFERENCE

In this document, we incorporate by reference information that we file with the SEC, which means that we can disclose important information to you by referring to that information. The information incorporated by reference is considered to be a part of this prospectus supplement, and later information filed with the SEC will update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act until the offering is completed:

Our annual report on Form 10-K and Form 10-K/A for the year ended December 31, 2004;

Our quarterly reports on Form 10-Q for the quarters ended March 31, 2005 and June 30, 2005;

Our current reports on Form 8-K filed January 6, 2005; February 3, 2005; May 10, 2005; May 25, 2005; July 6, 2005; July 12, 2005; August 4, 2005; August 5, 2005 and August 9, 2005;

Our definitive proxy statement filed on Schedule 14A on April 7, 2005; and

The description of our common stock contained in our registration statement on Form 8-A, filed with the SEC on October 12, 1995, and any further amendment or report filed thereafter for purposes of updating any such description.

You may request a copy of any or all of the information that has been incorporated by reference in this prospectus supplement but that has not been delivered, at no cost, by writing or calling us at the following address or telephone number:

Advanced Energy Industries, Inc.
1625 Sharp Point Drive
Fort Collins, CO 80525
Attention: Investor Relations
(970) 221-4670

Table of Contents

**CONSOLIDATED FINANCIAL STATEMENTS
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS**

	Page
Audited Financial Statements	
<u>Reports of Grant Thornton LLP, Independent Registered Public Accounting Firm</u>	F-2
<u>Report of KPMG LLP, Independent Registered Public Accounting Firm</u>	F-5
<u>Consolidated Balance Sheets as of December 31, 2004 and 2003</u>	F-6
<u>Consolidated Statements of Operations for the Years Ended December 31, 2004, 2003 and 2002</u>	F-8
<u>Consolidated Statements of Stockholders' Equity and Comprehensive Loss for the Years Ended December 31, 2004, 2003 and 2002</u>	F-9
<u>Consolidated Statements of Cash Flows for the Years Ended December 31, 2004, 2003 and 2002</u>	F-10
<u>Notes to Consolidated Financial Statements</u>	F-11
<u>Schedule II - Valuation and Qualifying Accounts</u>	F-41
Unaudited Financial Statements	
<u>Condensed Consolidated Balance Sheets as of June 30, 2005 and December 31, 2004</u>	F-42
<u>Condensed Consolidated Statements of Operations for the three months ended June 30, 2005 and 2004</u>	F-43
<u>Condensed Consolidated Statements of Operations for the six months ended June 30, 2005 and 2004</u>	F-44
<u>Condensed Consolidated Statements of Cash Flows for the six months ended June 30, 2005 and 2004</u>	F-45
<u>Notes to Condensed Consolidated Financial Statements</u>	F-46

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and
Shareholders of Advanced Energy Industries, Inc.

We have audited the accompanying consolidated balance sheet of Advanced Energy Industries, Inc. and subsidiaries (the Company) as of December 31, 2004, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for the year then ended. 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 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 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 audit provides 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, 2004, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Our audit was conducted for the purpose of forming an opinion on the basic financial statements taken as a whole. Schedule II listed in the index of financial statements is presented for purposes of additional analysis and is not a required part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in the audit of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the effectiveness of Advanced Energy Industries, Inc.'s internal control over financial reporting as of December 31, 2004, 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 July 6, 2005 expressed an unqualified opinion on management's assessment of the effectiveness of internal control over financial reporting and an adverse opinion on the effectiveness of internal control over financial reporting because of the existence of material weaknesses.

/s/ Grant Thornton LLP

Denver, Colorado
July 6, 2005

F-2

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

Board of Directors and
Shareholders of Advanced Energy Industries, Inc.

We have audited management's assessment, included in the accompanying Management's Report on Internal Control Over Financial Reporting (included in Item 9A of this Form 10-K/ A), that Advanced Energy Industries, Inc. (the Company) did not maintain effective internal control over financial reporting as of December 31, 2004, because of the effect of material weaknesses identified in management assessment, 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. Our responsibility is to express an opinion on management's assessment and an opinion on the effectiveness of 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, evaluating management's assessment, testing and evaluating the design and operating effectiveness of internal control, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (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.

A material weakness is a control deficiency, or combination of control deficiencies, that results in more than a remote likelihood that a material misstatement of the annual or interim financial statements will not be prevented or detected. The Company's management has identified and included in its assessment two material weaknesses. The first material weakness relates to the lack of segregation of duties within the Company's enterprise resource planning (ERP) system, as certain employees have ERP system access to record transactions outside of their assigned job responsibilities. The Company's ERP system is integrated throughout the organization including material foreign locations, with the exception of the Japan locations. The ERP system interacts with most of the Company's major processes including manufacturing, payables, receivables and inventory controls. This material weakness could result in a material misstatement of annual and interim financial statements that would not be prevented or detected in the normal course of operations. The second material weakness relates to two significant deficiencies in the Company's Japan operations, that when considered in the aggregate, represents a material weakness. The first significant deficiency relates to each of the two Japan facilities having its own unique information system, as well as a lack of segregation of duties, with certain employees having access in these systems to

Table of Contents

record transactions outside of their assigned job responsibilities. The second significant deficiency in Japan was the lack of proper segregation of duties and oversight at the local level. This material weakness could result in a material misstatement of the operating results of the Japanese subsidiaries which are included in the Company's annual and interim financial statements that would not be prevented or detected in the normal course of operations. These material weaknesses were considered in determining the nature, timing and extent of audit tests applied in our audit of the 2004 consolidated financial statements, and this report does not affect our report dated July 6, 2005, on those financial statements.

In our opinion, management's assessment that Advanced Energy Industries, Inc. did not maintain effective internal control over financial reporting as of December 31, 2004, is fairly stated, in all material respects, based on COSO. Also in our opinion, because of the effect of the material weaknesses described above on the achievement of the objectives of the control criteria, Advanced Energy Industries, Inc. has not maintained effective internal control over financial reporting as of December 31, 2004, based on COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheet of Advanced Energy Industries, Inc. and subsidiaries as of December 31, 2004, and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for the year then ended, and our report dated July 6, 2005, expressed an unqualified opinion.

/s/ Grant Thornton LLP

Denver, Colorado
July 6, 2005

F-4

Table of Contents

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors and Stockholders

Advanced Energy Industries, Inc.:

We have audited the accompanying consolidated balance sheet of Advanced Energy Industries, Inc. (a Delaware corporation) and subsidiaries as of December 31, 2003 and the related consolidated statements of operations, stockholders' equity and comprehensive loss, and cash flows for each of the years in the two-year period then ended. In connection with our audits of these consolidated financial statements, we also have audited the related financial statement schedules as listed in the accompanying index. These consolidated financial statements and financial statement schedules are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and financial statement schedules 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, 2003, and the results of their operations and their cash flows for each of the years in the two-year period then ended, in conformity with U.S. generally accepted accounting principles. Also, in our opinion, the related financial statement schedules, when considered in relation to the basic consolidated financial statements taken as a whole, present fairly, in all material respects, the information set forth therein.

Advanced Energy Industries, Inc. and subsidiaries adopted the provisions of Statements of Financial Accounting Standards No. 141, *Business Combinations*, and No. 142, *Goodwill and Other Intangible Assets*, effective January 1, 2002.

Advanced Energy Industries, Inc. and subsidiaries adopted the provisions of Statement of Financial Accounting Standards No. 145, *Rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections*, effective January 1, 2003.

/s/ KPMG LLP

Denver, Colorado
February 20, 2004

F-5

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands)

	December 31,	
	2004	2003
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 38,404	\$ 41,522
Marketable securities	69,578	93,370
Accounts receivable		
Trade (less allowances for doubtful accounts of approximately \$1,049 and \$1,303 at December 31, 2004 and 2003, respectively)	66,610	57,156
Other	5,443	4,771
Income tax receivable	404	151
Inventories, net	73,224	65,703
Other current assets	5,736	5,486
Total current assets	259,399	268,159
PROPERTY AND EQUIPMENT, at cost, net of accumulated depreciation of \$59,464 and \$50,848 at December 31, 2004 and 2003, respectively	44,746	44,725
OTHER ASSETS:		
Deposits and other	6,468	5,951
Goodwill	68,276	69,510
Other intangible assets, net of accumulated amortization of \$9,624 and \$11,197 at December 31, 2004 and 2003, respectively	12,032	19,433
Demonstration and customer service equipment, net of accumulated amortization of \$6,880 and \$5,688 at December 31, 2004 and 2003, respectively	2,968	3,934
Deferred debt issuance costs, net	2,086	3,019
Total assets	\$ 395,975	\$ 414,731

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

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(In thousands, except per share data)

	December 31,	
	2004	2003
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Trade accounts payable	\$ 17,683	\$ 23,066
Taxes payable	2,974	445
Accrued payroll and employee benefits	7,788	7,953
Accrued warranty expense	6,791	6,612
Accrued restructuring charges	4,414	3,175
Other accrued expenses	5,986	7,079
Customer deposits and deferred revenue	662	2,952
Capital lease obligations, current portion	294	554
Senior borrowings, current portion	3,432	8,028
Accrued interest payable on convertible subordinated notes	2,460	2,460
Total current liabilities	52,484	62,324
LONG-TERM LIABILITIES:		
Capital leases, net of current portion	421	263
Senior borrowings, net of current portion	4,258	5,905
Deferred income tax liabilities, net	3,709	4,672
Convertible subordinated notes payable	187,718	187,718
Other long-term liabilities	2,407	2,015
Total long-term liabilities	198,513	200,573
Total liabilities	250,997	262,897
COMMITMENTS AND CONTINGENCIES		
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; 32,760 and 32,573 shares issued and outstanding at December 31, 2004 and 2003, respectively	33	33
Additional paid-in capital	144,500	142,667
Accumulated deficit	(12,795)	(48)
Deferred compensation		(60)
Unrealized holding gains on available-for-sale securities, net	1,051	1,491
Cumulative translation adjustments, net	12,189	7,751
Total stockholders equity	144,978	151,834

Total liabilities and stockholders equity	\$ 395,975	\$ 414,731
---	------------	------------

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

F-7

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(In thousands, except per share amounts)

	Years Ended December 31,		
	2004	2003	2002
SALES	\$ 395,305	\$ 262,402	\$ 238,898
COST OF SALES	275,626	174,455	170,138
GROSS PROFIT	119,679	87,947	68,760
OPERATING EXPENSES:			
Research and development	51,541	51,647	48,995
Selling, general and administrative	62,444	53,951	66,586
Litigation damages			4,200
Restructuring charges	3,912	4,306	9,060
Impairment of intangible assets	3,326	1,175	1,904
Total operating expenses	121,223	111,079	130,745
LOSS FROM OPERATIONS	(1,544)	(23,132)	(61,985)
OTHER INCOME (EXPENSE):			
Interest income	1,737	1,721	3,314
Interest expense	(11,049)	(11,254)	(12,460)
Foreign currency gain	1,023	869	5,280
Gain on retirement of convertible subordinated notes			4,223
Other income (expense), net	1,033	(644)	(2,064)
	(7,256)	(9,308)	(1,707)
Net loss before income taxes	(8,800)	(32,440)	(63,692)
(PROVISION) BENEFIT FOR INCOME TAXES	(3,947)	(11,801)	22,293
NET LOSS	\$ (12,747)	\$ (44,241)	\$ (41,399)
BASIC AND DILUTED NET LOSS PER SHARE	\$ (0.39)	\$ (1.37)	\$ (1.29)
BASIC AND DILUTED WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING	32,649	32,271	32,026

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

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS EQUITY AND COMPREHENSIVE LOSS
(In thousands)

	Common Stock		Additional	Retained	Deferred	Accumulated	Total
	Shares	Amount	Paid-in	Earnings	Compensation	Other	Stockholders
			Capital	(Accumulated		(Loss)	Equity
				Deficit)		Income	
BALANCES, December 31, 2001	31,848	\$ 32	\$ 131,698	\$ 85,592	\$ (1,094)	\$ (1,883)	\$ 214,345
Exercise of stock options for cash	118		1,389				1,389
Issuance of common stock for acquisition of minority interest of Litmas	120		4,219				4,219
Sale of common stock through employee stock purchase plan	54		689				689
Tax benefit related to shares acquired by employees under stock compensation plans			468				468
Amortization of deferred compensation					518		518
Adjustment for forfeited options			(34)		34		
Comprehensive loss:							
Equity adjustment from foreign currency translation, net of tax						4,400	
Unrealized holding losses, net of tax						(2,641)	
Less: reclassification adjustment for amounts included in net loss						1,351	
Net loss				(41,399)			
Total comprehensive loss							(38,289)
BALANCES, December 31, 2002	32,140	\$ 32	\$ 138,429	\$ 44,193	\$ (542)	\$ 1,227	\$ 183,339
	360	1	3,499				3,500

Exercise of stock options for cash								
Sale of common stock through employee stock purchase plan	73		739					739
Amortization of deferred compensation					482			482
Comprehensive loss:								
Equity adjustment from foreign currency translation, net of tax							6,491	
Unrealized holding gains, net of tax							1,524	
Net loss			(44,241)					
Total comprehensive loss								(36,226)
BALANCES,								
December 31, 2003	32,573	\$ 33	\$ 142,667	\$ (48)	\$ (60)	\$ 9,242	\$ 151,834	
Exercise of stock options for cash								
	122		1,224					1,224
Sale of common stock through employee stock purchase plan								
	65		609					609
Amortization of deferred compensation								
					60			60
Comprehensive loss:								
Equity adjustment from foreign currency translation, net of tax							4,438	
Unrealized holding losses, net of tax							(146)	
Reclassification adjustment for amounts included in net loss related to sales of securities								
							(294)	
Net loss			(12,747)					
Total comprehensive loss								(8,749)
BALANCES,								
December 31, 2004	32,760	\$ 33	\$ 144,500	\$ (12,795)	\$	\$ 13,240	\$ 144,978	

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

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Years Ended December 31,		
	2004	2003	2002
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net loss	\$ (12,747)	\$ (44,241)	\$ (41,399)
Adjustments to reconcile net loss to net cash used in operating activities -			
Depreciation and amortization	21,119	21,829	23,289
Demonstration and evaluation equipment write-off	3,752		
Provision (benefit) for deferred income taxes	444	6,429	(6,888)
Provision for excess and obsolete inventory	11,262	3,016	5,803
Asset impairment charges	3,326	1,350	5,066
Provision for (recovery of) doubtful accounts	198	(429)	1,870
Unrealized (gain) loss on foreign currency forward contracts	(107)	160	388
Gain on retirement of convertible subordinated notes			(4,223)
Net (gain) loss on disposal of assets	(864)	2,846	359
Unrealized gain on intercompany foreign currency loan			(4,879)
Changes in operating assets and liabilities, net of assets and liabilities acquired			
Accounts receivable trade	(8,925)	(14,556)	(5,067)
Inventories	(19,783)	(11,339)	3,021
Other current assets	(675)	(62)	(846)
Accounts payable trade	(5,849)	5,873	2,366
Other current liabilities and accrued expenses	(2,329)	(2,379)	8,293
Income taxes payable/receivable, net	2,507	16,530	608
Non-current assets	(3,099)	666	(3,760)
Non-current liabilities	392	1,321	694
Net cash used in operating activities	(11,378)	(12,986)	(15,305)
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of marketable securities	(1,208)	(1,308)	(2,499)
Proceeds from sale of marketable securities	25,000	10,106	90,439
Proceeds from sale of assets	2,556	5,196	350
Purchase of property and equipment	(14,019)	(20,509)	(10,714)
Purchase of investments and advances		(400)	(2,781)
Acquisition of Aera Japan Limited, net of cash acquired			(35,689)
Acquisition of Dressler HF Technik GmbH, net of cash acquired		(1,675)	(14,395)
Acquisition of interest in Litmas, net of cash acquired			(400)
Net cash provided by (used in) investing activities	12,329	(8,590)	24,311

CASH FLOWS FROM FINANCING ACTIVITIES:

Proceeds from senior borrowings	1,585		
Repayment of senior borrowings and capital lease obligations	(8,609)	(12,847)	(10,190)
Repurchase of convertible subordinated debt, net			(14,522)
Sale of common stock through employee stock purchase plan	609	739	689
Proceeds from exercise of stock options	1,224	3,500	1,389
Net cash used in financing activities	(5,191)	(8,608)	(22,634)
EFFECT OF CURRENCY TRANSLATION ON CASH	1,122	1,518	1,861
DECREASE IN CASH AND CASH EQUIVALENTS	(3,118)	(28,666)	(11,767)
CASH AND CASH EQUIVALENTS, beginning of year	41,522	70,188	81,955
CASH AND CASH EQUIVALENTS, end of year	\$ 38,404	\$ 41,522	\$ 70,188

SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:

Tax benefit related to shares acquired by employees under stock option plans	\$	\$	\$ 468
--	----	----	--------

SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:

Cash paid for interest	\$ 9,949	\$ 10,521	\$ 11,517
Cash paid (received) for income taxes, net	\$ 1,227	\$ (9,642)	\$ (16,086)
Assets sold for note receivable	\$ 1,842	\$ 1,538	\$

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

Table of Contents

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

(1) Company Operations and Summary of Significant Accounting Policies

Advanced Energy Industries, Inc., a Delaware corporation, is primarily engaged in the development and production of components and subsystems critical to plasma-based manufacturing processes, which are used by manufacturers of semiconductors and in industrial thin-film manufacturing processes.

Basis of Presentation The consolidated financial statements include the accounts of Advanced Energy Industries, Inc. and its wholly-owned subsidiaries (collectively, the Company) since their dates of acquisition (see Note 2). All significant intercompany accounts and transactions have been eliminated in consolidation. The consolidated financial statements are stated in U.S. dollars and are prepared in accordance with accounting principles generally accepted in the United States.

Segment Reporting The Company operates in one segment for the manufacture, marketing and servicing of key subsystems, primarily to the semiconductor capital equipment industry. In accordance with Statement of Financial Accounting Standard (SFAS) No. 131, Disclosures About Segments of an Enterprise and Related Information, the Company's chief operating decision maker has been identified as the Chief Executive Officer, who reviews operating results to make decisions about allocating resources and assessing performance for the entire Company. SFAS No. 131, which is based on a management approach to segment reporting, establishes requirements to report selected segment information quarterly and to report annually entity-wide disclosures about products and services, major customers, and the countries in which the entity holds material assets and reports revenue. All material operating units qualify for aggregation under SFAS No. 131 due to their similar customer base and similarities in: economic characteristics; nature of products and services; and procurement, manufacturing and distribution processes. To report revenues from external customers for each product and service or group of similar products and services would not be practicable. Since the Company operates in one segment, all financial information required by SFAS No. 131 can be found in the consolidated financial statements and notes thereto.

Estimates and Assumptions The preparation of the Company's consolidated financial statements in conformity with accounting principles generally accepted in the United States requires the Company's 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, allocating purchase price among the fair values of assets acquired and liabilities assumed, accounting for income taxes, and assessing excess and obsolete inventory and various others items. The Company 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.

New Accounting Pronouncements In December 2004, the Financial Accounting Standards Board (FASB) reissued SFAS No. 123, Accounting for Stock-Based Compensation as SFAS No. 123(R), Share Based Compensation. This statement replaces SFAS No. 123, amends SFAS No. 95, Statement of Cash Flows, and supersedes Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees. SFAS No. 123(R) requires companies to apply a fair-value based measurement method in accounting for share-based payment transactions with employees and to record compensation expense for all stock awards granted, and to awards modified, repurchased or cancelled after the required effective date. Compensation expense for outstanding awards for which the requisite service had not been rendered as of the effective date will be recognized over the remaining service period using the compensation cost calculated for pro forma disclosure purposes under SFAS No. 123, adjusted for

Table of Contents

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

expected forfeitures. Additionally, SFAS No. 123(R) will require entities to record compensation expense for employee stock purchase plans that may not have previously been considered compensatory under the existing rules. SFAS No. 123(R) will be effective for quarterly periods beginning after June 15, 2005, which is the Company's third quarter of 2005. The Company will adopt the provisions of SFAS No. 123(R) using a modified prospective application. This statement may have a significant impact on the Company's results of operations as the Company will be required to record compensation expense in the consolidated statement of operations rather than disclose the impact on the Company's results of operations within its notes to the consolidated financial statements (see Note 18).

In November 2004, the FASB issued SFAS No. 151, *Inventory Costs*, an amendment of Accounting Research Bulletin No. 43, Chapter 4, *Inventory Pricing*. SFAS No. 151 clarifies that abnormal amounts of idle facility expense, freight, handling costs, and wasted materials (spoilage) should be recognized as current-period charges. In addition, it requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 will be effective for inventory costs incurred during fiscal years beginning after June 15, 2005 and will be applied on a prospective basis by the Company for the fiscal year beginning January 1, 2006. The Company is currently evaluating the impact that adoption of SFAS No. 151 will have on its financial position and results of operations.

Revenue Recognition The Company's standard shipping term is freight on board (FOB) shipping point, for which revenue is recognized upon shipment of its products, at which time title passes to the customer, the price is fixed and collectability is reasonably assured. For certain customers, the Company has FOB destination terms, for which revenue is recognized upon receipt of the products by the customer, at which time title passes to the customer, the price is fixed and collectability is reasonably assured. Generally, the Company does not have obligations to its customers after its products are shipped under FOB shipping point terms or after its products are received by the customer under FOB destination terms, other than pursuant to warranty obligations. In limited instances, the Company provides installation of its products. In accordance with Emerging Issues Task Force (EITF) Issue 00-21 *Accounting for Revenue Arrangements With Multiple Deliverables*, the Company allocates revenue based on the fair value of the delivered item, generally the product, and the undelivered item, installation, based on their respective fair values. Revenue related to the undelivered item is deferred until the services have been completed. In certain limited instances, some of the Company's customers have negotiated product acceptance provisions relative to specific orders. Under these circumstances, the Company defers revenue recognition until the related acceptance provisions have been satisfied. Revenue deferrals are reported as customer deposits and deferred revenue in the consolidated balance sheets.

In certain instances, the Company requires its customers to pay for a portion or all of their purchases prior to the Company building or shipping these products. Cash payments received prior to shipment are recorded as customer deposits and deferred revenue in the consolidated balance sheets, and then recognized as revenue upon shipment of the products. The Company does not offer price protections to its customers or allow returns, unless covered by its normal policy for repair of defective products.

Shipping and Handling Costs Amounts billed to customers for shipping and handling are recorded in sales in the consolidated statements of operations. Shipping and handling costs incurred by the Company for the delivery of products to customers are included in cost of sales in the consolidated statements of operations.

Excess and Obsolete Inventory Inventory is written down or written off when it becomes obsolete, generally due to engineering changes to a product or discontinuance of a product line, or when it is deemed excess. Judgment by management is necessary in estimating the net realizable value of inventory based primarily upon forecasts of product demand. Charges for excess and obsolete inventory are recorded, as necessary, within cost of sales in the consolidated statements of operations. For the years ended

Table of Contents

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

December 31, 2004, 2003 and 2002, the Company recorded charges for excess and obsolete inventory of \$11.3 million, \$3.0 million and \$5.8 million, respectively.

Warranty Policy The Company offers warranty coverage for its products for periods typically ranging from 12 to 24 months after shipment. The Company estimates the anticipated costs of repairing products under warranty based on the historical cost of the repairs and expected failure rates. The assumptions used to estimate warranty accruals are reevaluated periodically in light of actual experience and, when appropriate, the accruals are adjusted. The Company's determination of the appropriate level of warranty accrual is subjective and based on estimates. The industries in which the Company operates are subject to rapid technological change and, as a result, the Company periodically introduces newer, more complex products, which tend to result in increased warranty 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 Company recorded warranty charges of \$10.5 million, \$8.1 million and \$13.2 million for the years ended December 31, 2004, 2003 and 2002, respectively. The following summarizes the activity in the Company's warranty reserves during 2004 and 2003:

	2004	2003
	(In thousands)	
Balance at beginning of period	\$ 6,612	\$ 9,402
Additions charged to expense	10,466	8,105
Deductions	(10,287)	(10,895)
Balance at end of period	\$ 6,791	\$ 6,612

Selling, General and Administrative Selling, general and administrative expenses in the accompanying consolidated statements of operations are expensed as incurred, including legal and advertising costs.

Stock-Based Compensation At December 31, 2004, the Company had three active stock-based compensation plans, which are more fully described in Note 18. The Company accounts for employee stock-based compensation using the intrinsic value method prescribed by APB Opinion No. 25, *Accounting for Stock Issued to Employees* and related interpretations. APB Opinion No. 25 requires the use of the intrinsic value method, which measures compensation cost as the excess, if any, of the quoted market price of the stock at the measurement date over the amount an employee must pay to acquire the stock. With the exception of certain options granted in 1999 and 2000 by a shareholder of Sekidenko, Inc., prior to its acquisition by the Company (which was accounted for as a pooling of interests), all options granted under these plans have an exercise price equal to the market value of the underlying common stock on the date of grant, therefore no stock-based compensation cost is reflected in the Company's net loss. Had compensation cost for the Company's plans been determined consistent with the fair value-based

Table of Contents

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

method prescribed by SFAS No. 123, Accounting for Stock-Based Compensation, the Company's net loss would have increased to the following adjusted amounts:

	2004	2003	2002
(In thousands, except per share data)			
Net loss:			
As reported	\$ (12,747)	\$ (44,241)	\$ (41,399)
Adjustment for stock-based compensation determined under fair value-based method for all awards, net of related tax effects in 2002(a), (b)	(12,133)	(12,410)	(9,794)
Less: Compensation expense recognized in net loss, net of related tax effects in 2002(a), (c)	60	482	324
As adjusted	\$ (24,820)	\$ (56,169)	\$ (50,869)
Basic and diluted loss per share:			
As reported	\$ (0.39)	\$ (1.37)	\$ (1.29)
As adjusted	\$ (0.76)	\$ (1.74)	\$ (1.59)

- (a) Compensation expense in 2004 and 2003 is presented prior to income tax effects due to the Company recording valuation allowances against certain deferred tax assets in 2003 (see Note 12).
- (b) Cumulative compensation cost recognized with respect to options that are forfeited prior to vesting is reflected as a reduction of compensation expense in the period of forfeiture. Compensation expense related to awards granted under the Company's employee stock purchase plan is estimated until the period in which settlement occurs, as the number of shares of common stock awarded and the purchase price are not known until settlement.
- (c) Prior to its acquisition by the Company, a shareholder of Sekidenko, Inc. granted employees options under a preexisting arrangement to purchase shares of his common stock already outstanding at exercise prices below fair value. Under this agreement, 29,700 and 34,250 of such options were granted in 1999 and 2000, respectively. These options result in the Company recognizing approximately \$2.1 million as compensation expense over the four-year vesting period of the options. The options fully vested during the first quarter of 2004. For SFAS No. 123 purposes, the fair value of each option grant and purchase right granted under the ESPP are estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	2004	2003	2002
OPTIONS:			
Risk-free interest rates	3.05%	2.96%	3.89%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	3.0 years	2.9 years	2.9 years
Expected volatility	75.23%	85.64%	88.05%

ESPP:

Edgar Filing: ADVANCED ENERGY INDUSTRIES INC - Form 424B2

Risk-free interest rates	1.70%	1.34%	1.91%
Expected dividend yield rates	0.0%	0.0%	0.0%
Expected lives	0.5 years	0.5 years	0.5 years
Expected volatility	65.31%	83.82%	76.62%

F-14

Table of Contents

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

Based on the Black-Scholes option pricing model, the weighted-average estimated fair value of employee stock option grants was \$8.49, \$7.88 and \$12.54 for the years ended December 31, 2004, 2003 and 2002, respectively. The weighted-average estimated fair value of purchase rights granted under the ESPP was \$3.45, \$4.99 and \$8.92 for the years ended December 31, 2004, 2003 and 2002, respectively.

The total fair value of options granted was computed to be approximately \$10.9 million, \$14.3 million and \$24.4 million for the years ended December 31, 2004, 2003 and 2002, respectively. These amounts are amortized ratably over the vesting period of the options for the purpose of calculating the pro forma disclosure above.

The Company will adopt the provisions of SFAS No. 123(R) as of the Company's third quarter of fiscal year 2005, as further discussed the heading "New Accounting Pronouncements" above. The adoption of this statement may have a significant impact on the Company's results of operations as the Company will be required to record compensation expense in the consolidated statement of operations rather than disclose the impact on the Company's results of operations within its notes to the consolidated financial statements.

Commitments and Contingencies 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 potential 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 potential 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 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.

Cash and Cash Equivalents The Company considers all amounts on deposit with financial institutions and highly liquid investments (valued at cost, which approximates fair value) with an original maturity of 90 days or less to be cash and cash equivalents.

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. The Company maintains cash and cash equivalents, marketable securities and certain other financial instruments with various major financial institutions. The Company performs periodic evaluations of the relative credit standing of these financial institutions and limits the amount of credit exposure with any one institution. The Company's customers generally are concentrated in the semiconductor capital equipment industry. As a result the Company is generally exposed to credit risk associated with this industry. Sales by the Company's foreign subsidiaries are primarily denominated in currencies other than the U.S. dollar. The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

Marketable Securities The Company's investment in marketable securities, includes commercial paper, municipal bonds and notes and institutional money markets. These investments are classified as available for sale securities, and are recorded at fair value with changes in fair market value recorded as unrealized holding gains or losses in other comprehensive loss, net of tax. Due to the short-term, highly liquid nature of the marketable securities held by the Company, the cost, including accrued interest on such investments, approximates fair value.

The Company also has investments in marketable equity securities which have been included in deposits and other in the accompanying consolidated balance sheets, due to the Company's expressed intent and demonstrated ability to hold for greater than one year. These investments are classified as

Table of Contents

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

available-for-sale securities and are reported at fair value with unrealized holding gains and losses included in other comprehensive loss, net of tax.

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

Property and Equipment Property and equipment is stated at cost or estimated fair value upon acquisition. Depreciation is computed using the straight-line method over thirty-five to forty years for buildings; three to ten years for machinery, equipment, furniture and fixtures and vehicles; and three years for computers 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 operations. Property and other long-lived assets are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

Goodwill and Other Intangible Assets Goodwill represents the excess of the cost over the fair market value of net tangible and identifiable intangible assets of acquired businesses.

Goodwill and certain other intangible assets with indefinite lives are not amortized. Instead, goodwill and other indefinite-lived intangible assets are subject to periodic (at least annual) tests for impairment. For the periods presented, the Company does not have any indefinite-lived intangible assets, other than goodwill. Impairment testing is performed in two steps: (i) the Company assesses goodwill for potential impairment by comparing the fair value of its reporting unit with its carrying value, and (ii) if potential impairment is indicated because the reporting unit's fair value is less than its carrying amount, the Company measures the amount of impairment loss by comparing the implied fair value of goodwill with the carrying amount of that goodwill.

Finite-lived intangible assets continue to be amortized using the straight-line method over their estimated useful lives and are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

Demonstration and Customer Service Equipment Demonstration equipment is a manufactured product that is utilized for sales demonstration and evaluation purposes. Customer service equipment is manufactured product that is utilized as replacement and loaner equipment to existing customers.

Historically, the Company has amortized demonstration and customer service equipment over its estimated useful life of two years. During the fourth quarter of 2004, as a result of the continuing process of obtaining and analyzing historical data and the Company's plan for use of the current and future demonstration equipment, the Company made a change in the estimated useful life of the demonstration equipment from two years to zero years. As a result of this change in estimate, the net book value of demonstration equipment of approximately \$3.2 million, net of tax, or \$0.10 per share, was written off. The Company's current policy is to record selling, general and administrative expense for the demonstration equipment as it is given to our customer or potential customer. Customer service equipment will continue to be amortized over its estimated useful life of two years.

Foreign Currency Translation The functional currency of the Company's foreign subsidiaries is their local currency, with the exception of the Company's manufacturing facility in Shenzhen, China where the U.S. dollar is the functional currency. Assets and liabilities of international subsidiaries are translated to U.S. dollars at period-end exchange rates, and statement of operations activity and cash flows

Table of Contents

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

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 the Company and its foreign subsidiaries are included in income.

Reclassifications Certain prior period amounts have been reclassified to conform to the current period presentation.

(2) Acquisitions

Litmas During 1998, the Company acquired a 29% ownership interest in Litmas, a privately held, North Carolina-based early-stage company that designed and manufactured plasma gas abatement systems and high-density plasma sources. The purchase price consisted of \$1.0 million in cash. On October 1, 1999, the Company acquired an additional 27.5% interest in Litmas for an additional \$560,000. The purchase price consisted of \$385,000 in the Company's common stock and \$175,000 in cash. The acquisition was accounted for using the purchase method of accounting and resulted in \$523,000 allocated to intangible assets as goodwill. The results of operations of Litmas have been consolidated in the Company's financial statements from the date the controlling interest of 56.5% was acquired. In October 2000, the Company acquired an additional 3.0% interest in Litmas for an additional \$250,000, bringing the Company's ownership interest in Litmas to 59.5%. In April 2002, the Company completed its acquisition of the 40.5% of Litmas that it did not previously own, by issuing approximately 120,000 shares of the Company's common stock valued at approximately \$4.2 million, and approximately \$400,000 of cash. The acquisition of the remaining minority interest in Litmas resulted in approximately \$5.0 million of additional goodwill.

Dressler On March 28, 2002, the Company acquired Dressler HF Technik GmbH (Dressler), a privately owned Stolberg, Germany-based provider of power supplies and matching networks, for a purchase price of approximately \$15.0 million in cash and a \$1.7 million escrow. The escrow fund was retained by the Company until January 2003, at which time the related escrow liability was settled. The purchase price was also subject to a \$3.0 million earn-out provision if Dressler achieved certain key business objectives by March 30, 2003. These business objectives were not met prior to the expiration date.

The Company believes that Dressler expands the Company's product offerings to customers in the semiconductor, data storage, and flat panel equipment markets due to its strong power product portfolio that includes a wide range of power levels and radio frequencies. In addition, with inroads already made into the laser and medical markets, Dressler is used to explore new market opportunities for the Company. Dressler also strengthens the Company's presence in the European marketplace. Dressler has well established relationships with many European customers, who look to Dressler for innovative technical capability, quality products, and highly responsive customer service.

The acquisition was accounted for using the purchase method of accounting in accordance with SFAS No. 141, Business Combinations (SFAS No. 141), and the operating results of Dressler are reflected in the accompanying consolidated financial statements prospectively from the date of acquisition. The tangible assets acquired and liabilities assumed were recorded at estimated fair values as determined by the Company's management. Goodwill and other intangible assets were recorded at estimated fair values based upon independent appraisals.

Table of Contents

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

The purchase price was allocated to the net assets of Dressler as summarized below (in thousands):

Cash and cash equivalents	\$ 680
Accounts receivable	1,939
Inventories	1,111
Other current assets	83
Property and equipment	260
Goodwill	9,405
Other intangible assets	7,750
Other assets	19
Accounts payable	(314)
Accrued payroll	(39)
Other accrued expenses	(474)
Deferred tax liability	(2,945)
Income taxes payable	(725)
	\$ 16,750

The excess purchase price over the estimated fair value of tangible net assets acquired was allocated to goodwill and other intangible assets (see Notes 1 and 8). The Company recognized approximately \$2.3 million, \$2.5 million and \$769,000 of amortization expense related to these amortizable intangibles acquired from Dressler for the years ended December 31, 2004, 2003 and 2002, respectively.

Prior to the combination, there were transactions between the Company and Dressler in the first three months of 2002, during which time the Company purchased approximately \$500,000 of inventory from Dressler. These purchases were made in the normal course of the Company's business.

Aera On January 18, 2002, the Company acquired Aera Japan Limited (*Aera*), a privately held Japanese corporation. The Company effected the acquisition through its wholly owned subsidiary, AE-Japan, which purchased all of the outstanding stock of Aera. The aggregate purchase price paid by AE-Japan was 5.7 billion Japanese yen (approximately \$44.0 million, based upon an exchange rate of 130:1), which the Company funded from its available cash. In connection with the acquisition, AE-Japan assumed approximately \$34.0 million of Aera's debt. Aera supplies the semiconductor capital equipment industry with product lines that include digital mass flow controllers, pressure-based mass flow controllers, liquid mass flow controllers, ultrasonic liquid flow meters and liquid vapor delivery systems.

The acquisition was accounted for using the purchase method of accounting in accordance with SFAS No. 141 and the operating results of Aera are reflected in the accompanying consolidated financial statements prospectively from the date of acquisition. The tangible assets acquired and liabilities assumed were recorded at estimated fair values as determined by the Company's management. Goodwill and other intangible assets were recorded at estimated fair values based upon independent appraisals.

Table of Contents

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

The purchase price was allocated to the net assets of Aera as summarized below (in thousands):

Cash and cash equivalents	\$ 8,276
Marketable securities	115
Accounts receivable	8,405
Inventories	19,243
Other current assets	530
Property and equipment	13,388
Goodwill	24,869
Other intangible assets	12,500
Other assets	427
Accounts payable	(2,329)
Accrued payroll	(2,924)
Other liabilities	(2,164)
Deferred tax liability	(4,765)
Current portion of long-term debt	(12,008)
Long-term debt	(19,598)
	\$ 43,965

There were no transactions between the Company and Aera prior to the combination. The excess purchase price over the estimated fair value of tangible net assets acquired was allocated to goodwill and other intangible assets (see Notes 1 and 8). The Company recognized approximately \$1.5 million, \$1.4 million and \$3.0 million of amortization expense related to the amortizable intangibles acquired from Aera for the years ended December 31, 2004, 2003 and 2002, respectively.

The pro forma results for the Company, Aera and Dressler for the year ended December 31, 2002, assuming the acquisitions of Aera and Dressler occurred on January 1, 2002, are not presented as the difference between the pro forma results and actual results are not material.

(3) Restructuring Costs

Restructuring charges include the costs associated with actions taken by the Company primarily in response to downturns in the semiconductor capital equipment industry. These charges consist of costs that are incurred to exit an activity or cancel an existing contractual obligation, including the closure of facilities and employee termination related charges.

Effective January 1, 2003, the Company adopted SFAS No. 146, *Accounting for Exit or Disposal Activities*, which nullifies EITF Issue No. 94-3, *Liability Recognition for Certain Employee Termination Benefits and Other Costs to Exit an Activity*. SFAS No. 146 requires costs associated with exit or disposal activities to be recognized when they are incurred, whereas under EITF Issue No. 94-3, a liability was recognized at the date of an entity's commitment to an exit plan. As related to employee termination benefits, the provisions of SFAS No. 146 offer guidance on one-time termination benefits, and exclude from the scope on-going benefit arrangements, therefore, the Company follows the guidance within SFAS No. 146 for voluntary severances and other one-time termination benefits.

The accounting for the standard severance benefits that the Company pays for involuntarily severed employees, considered an on-going benefit arrangement, is excluded from the scope of SFAS No. 146. For these benefits, the Company follows the guidance under SFAS No. 88, *Employers' Accounting for Settlements and Curtailments of Defined Benefit Pension Plans and for Termination Benefits*. Severance

Table of Contents

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

costs accounted for under SFAS No. 88 are accrued and recorded as restructuring expense when such amount is probable that employees will be entitled to benefits and the amount can be reasonably estimated.

The following table summarizes the components of the restructuring charges, the payments and non-cash charges, and the remaining accrual as of December 31, 2004, 2003 and 2002:

	Employee Severance and Termination Costs	Facility Closure Costs	Impairment of Facility-related Assets	Total Restructuring Charges
(In thousands)				
Accrual balance December 31, 2001	\$ 965	\$ 462	\$	\$ 1,427
Third quarter 2002 restructuring charge	1,033	1,757	430	3,220
Fourth quarter 2002 restructuring charge	2,021	2,201	1,618	5,840
Total restructuring charges 2002	3,054	3,958	2,048	9,060
Payments in 2002	(2,412)	(468)		(2,880)
Write-off of facility-related assets in 2002			(1,618)	(1,618)
Accrual balance December 31, 2002	1,607	3,952	430	5,989
First quarter 2003 restructuring charge	1,509			1,509
Second quarter 2003 restructuring charge	670	98		768
Third quarter 2003 restructuring charge	704		307	1,011
Fourth quarter 2003 restructuring charge	994	24		1,018
Total restructuring charges 2003	3,877	122	307	4,306
Payments in 2003	(4,924)	(1,459)		(6,383)
Write-off of facility-related assets in 2003			(737)	(737)
Accrual balance December 31, 2003	560	2,615		3,175
First quarter 2004 restructuring charge	220			220
Second quarter 2004 restructuring charge	187			187
Third quarter 2004 restructuring charge	57	31		88
	(127)	(126)		(253)

Third quarter 2004 restructuring reversal			
Fourth quarter 2004 restructuring charge	3,639	31	3,670
Total net restructuring charges 2004	3,976	(64)	3,912
Payments in 2004	(1,243)	(1,430)	(2,673)
Accrual balance December 31, 2004	\$ 3,293	\$ 1,121	\$ 4,414

The Company recorded restructuring charges totaling \$9.1 million in 2002, primarily associated with changes in operations designed to reduce redundancies and better align the Company's Aera mass flow controller business within its operating framework. The Company's restructuring plans and associated costs consisted of \$6.0 million to close and consolidate certain manufacturing facilities, and \$3.1 million for related headcount reductions of approximately 223 manufacturing and administrative employees in the Company's U.S. operations.

Included in the 2002 expense are charges for the closure of a portion of the Company's Voorhees, New Jersey manufacturing facilities, due to the transfer of the manufacturing of these products to Fort Collins, Colorado; the closure of a manufacturing facility in Fort Collins; the closure of a manufacturing

Table of Contents

**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

facilities in Longmont, Colorado, due to the transfer of the manufacturing of these products to Fort Collins, Colorado and ultimately to Shenzhen, China; and the closure of Litmas. During the fourth quarter of 2002, the Company closed its San Jose, California sales and service location; and the Company's Austin, Texas manufacturing facility for the Aera-brand mass flow controller products, due to the transfer of the manufacturing of these products to Hachioji, Japan, to be co-located with Aera Japan Limited. These costs consisted primarily of payments required under operating lease contracts and costs for writing down related leasehold improvements.

At the end of 2002, the Company announced major changes in its operations to occur through the end of 2003. These included establishing a new manufacturing facility in China, consolidating worldwide sales forces, a move to high-quality, low-cost suppliers local to our Shenzhen, China facility (Tier 1 Asian suppliers), and the intention to close or sell certain facilities.

Associated with the above plan, the Company recognized charges during 2003 as follows:

In the first quarter of 2003, the Company recorded charges totaling approximately \$1.5 million primarily associated with manufacturing and administrative personnel headcount reductions in the Company's Japanese operations. In accordance with Japanese labor regulations the Company offered voluntary termination benefits to all of its Japanese employees. The voluntary termination benefits were accepted by 36 employees, with termination dates in the second quarter of 2003.

In the second quarter of 2003, the Company recognized charges totaling \$768,000 that consisted primarily of the involuntary termination of 55 manufacturing and administrative personnel in the Company's U.S. operations.

In the third quarter of 2003, the Company recognized charges of approximately \$1.0 million that consisted of \$704,000 of expense for involuntary employee termination benefits for 20 employees and \$307,000 related to asset impairments incurred as a result of exiting its Longmont, Colorado manufacturing facilities.

In the fourth quarter of 2003, the Company recognized approximately \$1.0 million that consisted primarily of the recognition of expense for involuntary employee termination benefits associated with the involuntary employee termination benefits of 34 manufacturing and administrative personnel in the Company's U.S. operations.

In the first, second and third quarters of 2004, the Company recorded restructuring charges of \$220,000, \$187,000 and \$88,000, respectively, which primarily consisted of the recognition of expense for involuntary employee termination benefits associated with headcount reductions of approximately 34, 12 and 4 employees, respectively, in the Company's U.S. operations. All affected employees were terminated prior to the respective quarter ends. Additionally, in the third quarter, the Company reversed \$253,000 of previously recorded charges due to variances from the original estimates used to establish the Company's reserve due to some voluntary employee terminations prior to their agreed upon termination date (no longer meeting the requirements to receive a severance payment) and negotiated lease termination payments below original estimates. As a result of such reversal, the Company's restructuring accrual balance for employee severance and termination costs was \$0 at September 30, 2004.

In the fourth quarter of 2004, the Company recorded restructuring charges of \$3.7 million. The \$3.7 million charge primarily consisted of employee termination and related costs associated with the involuntary severance of 212 employees, including 60 agency employees, at the Company's Fort Collins facility. All of such charges relate to separation costs anticipated to be paid to the terminated employees, in cash, by the end of the second quarter of 2005. The need to reduce headcount in Fort Collins resulted primarily from the transfer of a substantial portion of the Company's manufacturing operations to Shenzhen, China.

Table of Contents

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

(4) Marketable Securities

Marketable securities consisted of the following:

	December 31,	
	2004	2003
	(In thousands)	
Commercial paper	\$ 43,459	\$ 40,792
Municipal bonds and notes	20,332	46,762
Institutional money markets	5,787	5,816
Total marketable securities	\$ 69,578	\$ 93,370

These marketable securities are considered available-for-sale and are stated at period end market value. The commercial paper consists of high-credit quality, short-term money market common and preferreds, with maturities or reset dates of 120 days or less.

At December 31, 2004 and 2003, the Company also had \$3.6 million and \$4.8 million, respectively, of investments in marketable equity securities which are included in deposits and other in the accompanying consolidated balance sheets, due to the Company's expressed intent and demonstrated ability to hold for greater than one year. These investments are classified as available-for-sale securities and are reported at fair value with unrealized holding gains and losses included in other comprehensive loss, net of tax.

During the fourth quarter of 2002, the fair value of one of these securities continued a substantial decline, and the Company determined the decline was other than temporary. As a result, the Company recorded an impairment charge of approximately \$1.5 million. In the first quarter of 2003, this security continued to decline in value, and the Company recorded an additional impairment charge of \$175,000. Since the first quarter of 2003, the value of this security has appreciated which has been reflected as a component of other comprehensive loss, net of tax.

(5) Accounts Receivable Trade

Trade accounts receivable consisted of the following:

	December 31,	
	2004	2003
	(In thousands)	
Domestic	\$ 16,612	\$ 17,100
Foreign	51,047	41,359
Allowance for doubtful accounts	(1,049)	(1,303)
Total accounts receivable trade	\$ 66,610	\$ 57,156

Table of Contents

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

(6) Inventories, Net

Net inventories consisted of the following:

	December 31,	
	2004	2003
	(In thousands)	
Parts and raw materials	\$ 54,069	\$ 47,120
Work in process	4,491	4,385
Finished goods	14,664	14,198
Total inventories, net	\$ 73,224	\$ 65,703

Inventories include costs of materials, direct labor and manufacturing overhead. Inventories are valued at the lower of market or cost, computed on a first-in, first-out basis. Inventory is expensed as cost of sales upon recognition of revenue.

(7) Property and Equipment

Property and equipment consisted of the following:

	December 31,	
	2004	2003
	(In thousands)	
Land	\$ 5,127	\$ 5,663
Buildings	5,738	4,293
Machinery and equipment	40,196	36,039
Computers and communication equipment	28,954	24,324
Furniture and fixtures	6,221	6,268
Vehicles	290	1,368
Leasehold improvements	17,684	17,618
	104,210	95,573
Less accumulated depreciation	(59,464)	(50,848)
Total property and equipment	\$ 44,746	\$ 44,725

Aggregate depreciation expense related to property and equipment for the years ended December 31, 2004, 2003 and 2002, was \$13.7 million, \$12.7 million and \$13.4 million, respectively.

In the fourth quarter of 2002, in conjunction with the restructuring of its operations, the Company determined that certain facilities would be closed. The Company performed an analysis of the fair value of certain long-lived assets, including land and buildings acquired in conjunction with the Company's acquisition of Engineering Measurements Company in January 2001. As a result, the Company recorded impairments of property and equipment of \$1.6 million, which has been reflected as restructuring charges in the consolidated statement of operations.

Table of Contents

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

(8) Goodwill and Other Intangible Assets

Goodwill and other intangible assets consisted of the following as of December 31, 2004:

	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	\$ 7,304	\$ 1,741	\$ (5,290)	\$ 3,755	6
Contract-based	1,200	222	(1,386)	36	4
Trademarks and other	8,500	2,689	(2,948)	8,241	17
Total amortizable intangibles	17,004	4,652	(9,624)	12,032	11
Goodwill	55,104	13,172		68,276	
Total goodwill and other intangible assets	\$ 72,108	\$ 17,824	\$ (9,624)	\$ 80,308	

Goodwill and other intangible assets consisted of the following as of December 31, 2003:

	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	\$ 7,304	\$ 1,544	\$ (3,906)	\$ 4,942	6
Contract-based	9,210	1,709	(5,882)	5,037	4
Trademarks and other	8,500	2,363	(1,409)	9,454	17
Total amortizable intangibles	25,014	5,616	(11,197)	19,433	11
Goodwill	58,629	10,881		69,510	
Total goodwill and other intangible assets	\$ 83,643	\$ 16,497	\$ (11,197)	\$ 88,943	

The Company's goodwill and other intangible assets have primarily resulted from purchases of Japanese and German companies, and accordingly, carrying amounts for these assets are impacted by changes in foreign currency exchange rates.

Aggregate amortization expense related to amortizable intangibles for the years ended December 31, 2004, 2003 and 2002, was \$3.9 million, \$4.6 million and \$5.5 million, respectively. Estimated amortization expense related to the Company's acquired intangibles fluctuates with changes in foreign currency exchange rates between the U.S. dollar and the Japanese yen and the euro. Estimated amortization

Table of Contents

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

expense related to amortizable intangibles for each of the five years 2005 through 2009 is as follows (in thousands):

	Estimated Amortization Expense
	(In thousands)
2005	\$ 2,173
2006	2,016
2007	1,009
2008	876
2009	474

In the fourth quarter of 2004, the Company performed its annual goodwill impairment test, and concluded that no impairment of goodwill existed at the measurement date, as the estimated fair value of the Company's reporting unit exceeded its carrying amount. For the year ended December 31, 2004, goodwill was reduced by approximately \$3.3 million due to reversals of deferred tax asset valuation allowances established in purchase accounting (see Note 12).

During the fourth quarter of 2004, in conjunction with our financial forecasting for future periods, it was evident that projected cash flows from certain customers of Dressler were substantially below amounts projected at the time of acquisition and in subsequent forecasting periods. The projected cash flows were considered in determining the fair value of certain contract-based and other amortizable intangible assets recorded at acquisition and also in subsequent periods to assess such assets for potential impairment. Due to the decline in projected cash flows, we performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. The Company estimated the intangible asset's fair value through the use of projected cash flows based upon projected revenue streams over the life of the asset, discounted at rates consistent with the risk of the related cash flows. Based on this analysis the Company determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$2.9 million, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

Also during the fourth quarter of 2004, in conjunction with the Company's restructuring plan, employees who were the subject of certain contract-based amortizable intangibles were severed from the Company or their responsibilities were significantly altered. As a result, the Company performed assessments of the carrying values of the related amortizable intangible assets. These assessments consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. The Company estimated the intangible asset's fair value through the use of a lost profits method of determining the fair value, arriving at projected cash flows which were then discounted at rates consistent with the risk of the related cash flows. Based on this analysis the Company determined that the fair values of certain intangible assets were below the respective carrying values, and recorded impairment charges of approximately \$397,000, which has been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

During the third quarter of 2003, the Company determined that one of its mass flow controller products would not conform to changing customer technology requirements, and as such would no longer be accepted by the Company's customers. As a result, the Company performed an assessment of the carrying value of the related intangible asset. This assessment consisted of estimating the intangible asset's fair value and comparing the estimated fair value to the carrying value of the asset. The Company estimated the intangible asset's fair value by applying a hypothetical royalty rate to the projected revenue stream and using a cash flow model discounted at rates consistent with the risk of the related cash flows.

Table of Contents

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

Based on this analysis the Company determined that the fair value of the intangible asset was minimal and recorded an impairment charge of approximately \$1.2 million, which has also been reported as an impairment of intangible assets in the accompanying consolidated statement of operations.

In the fourth quarter of 2002, the Company's sales to the semiconductor capital equipment industry declined substantially from the third quarter of 2002. As a result, we determined there would be a significant delay by the semiconductor capital equipment industry in adopting advanced connectivity technology, and due to these industry conditions as well as our future strategic priorities, our relevant intangible assets were likely impaired. We evaluated the carrying amount of certain intangible assets by comparing its estimated future cash flows to its carrying value. This analysis indicated that such assets were impaired and we recorded a charge of \$1.9 million for 2002, which has been reflected as impairment of intangible assets in the accompanying consolidated statement of operations.

(9) Senior Borrowings

Senior borrowings consisted of the following:

	December 31,	
	2004	2003
	(In thousands)	
Revolving line of credit of \$25 million, expiring May 2005, interest at bank's prime rate minus 1%, (4.00% at December 31, 2004)	\$	\$
Senior borrowings (assumed in the acquisition of Aera), maturing serially through April 2010, interest from 1.5% to 3.1% at December 31, 2004	5,953	13,933
Mortgage note payable, maturing July 2007, interest at 3.0% at December 31, 2004	1,737	
Less current portion	(3,432)	(8,028)
Senior borrowings, net of current portion	\$ 4,258	\$ 5,905

The Company is subject to covenants on its line of credit that provide certain restrictions related to working capital, leverage, net worth, acquisitions, and payment and declaration of dividends. The Company was in compliance with these covenants at December 31, 2004. The senior borrowings assumed in the acquisition of Aera and the mortgage note payable are collateralized by the Company's buildings in Japan and Korea, respectively.

Scheduled maturities of the Company's outstanding borrowings and convertible subordinated notes payable (see Note 10) are as follows at December 31, 2004:

	Bank Loans	Convertible Subordinated Notes	Total
	(In thousands)		
2005	\$ 3,432	\$	\$ 3,432
2006	2,185	187,718	189,903
2007	2,073		2,073
Total	\$ 7,690	\$ 187,718	\$ 195,408

(10) Convertible Subordinated Notes Payable

In August 2001, the Company issued \$125.0 million of 5.00% convertible subordinated notes. These notes mature September 1, 2006, with interest payable on March 1st and September 1st of each year beginning March 1, 2002. Net proceeds to the Company were \$121.25 million, after deducting

F-26

Table of Contents

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

\$3.75 million of offering costs, which have been capitalized and are being amortized as additional interest expense over a period of five years. Holders of the notes may convert the notes at any time before maturity into shares of the Company's common stock at a conversion rate of 33.5289 shares per each \$1,000 principal amount of notes, equivalent to a conversion price of \$29.83 per share. The conversion rate is subject to adjustment in certain circumstances. The Company may redeem the notes from September 4, 2004 through August 31, 2005 at 102% times the principal amount, from September 1, 2005 through August 31, 2006 at 101% times the principal amount, and thereafter at 100% of the principal amount. Upon any provisional redemption, the Company will make an additional payment in cash with respect to the notes called for redemption in an amount equal to \$150.56 per \$1,000 principal amount of notes, less the amount of any interest paid on the note. The Company may also make this additional payment in shares of its common stock, and any such payment will be valued at 95% of the average of the closing prices of the Company's common stock for the five consecutive trading days ending on the day prior to the redemption date. The Company will be obligated to make an additional payment on all notes called for provisional redemption. The notes are subordinated to the Company's present and potential future senior debt, and are effectively subordinated in right of payment to all indebtedness and other liabilities of the Company's subsidiaries. At December 31, 2004, approximately \$2.0 million of interest expense related to these notes was accrued as a current liability.

In November 1999, the Company issued \$135.0 million of 5.25% convertible subordinated notes. These notes mature November 15, 2006, with interest payable on May 15th and November 15th each year beginning May 15, 2000. Net proceeds to the Company were approximately \$130.5 million, after deducting \$4.5 million of offering costs, which have been capitalized and are being amortized as additional interest expense over a period of seven years. Holders of the notes may convert the notes at any time into shares of the Company's common stock at a conversion rate of 20.1898 shares per each \$1,000 principal amount of notes, equivalent to a conversion price of \$49.53 per share. The conversion rate is subject to adjustment in certain circumstances. The Company may redeem the notes on or after November 19, 2002 at a redemption price of 103% of the principal amount, and may redeem at successively lesser amounts thereafter until November 15, 2006, at which time the Company may redeem at a redemption price equal to the principal amount. At December 31, 2004, approximately \$435,000 of interest expense related to these notes was accrued as a current liability.

In October and November 2000, the Company repurchased an aggregate of approximately \$53.4 million principal amount of its 5.25% convertible subordinated notes in the open market, for a cost of approximately \$40.8 million.

In October and November 2002, the Company repurchased approximately \$15.4 million and \$3.5 million principal amounts of its 5.25% and 5.00% convertible subordinated notes, respectively. These purchases were made in the open market, for a cost of approximately \$14.5 million, resulting in a pre-tax gain of \$4.2 million. At December 31, 2004 and 2003, approximately \$66.2 million and \$121.5 million principal amounts of the 5.25% and 5.00% notes, respectively, remained outstanding.

(11) Earnings Per Share

Basic earnings per share (EPS) is computed by dividing income (loss) 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 certain 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 (convertible notes payable and stock options) had been converted to such common shares, and if such assumed conversion is dilutive. For the years ended December 31, 2004, 2003 and 2002, certain stock

Table of Contents

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

options outstanding and the conversion of the Company's convertible subordinated notes payable were not included in this calculation because to do so would be anti-dilutive. Due to the Company's net loss for years ended December 31, 2004, 2003 and 2002, basic and diluted EPS are the same, as the assumed conversion of all potentially dilutive securities would be anti-dilutive. Potential shares of common stock issuable under options for common stock at December 31, 2004, 2003 and 2002 were approximately 4.7 million, 4.0 million and 3.6 million, respectively. Potential shares of common stock issuable upon conversion of the Company's convertible subordinated notes payable were 5.4 million at December 31, 2004, 2003 and 2002.

(12) Income Taxes

The Company accounts for income taxes in accordance with SFAS No. 109, Accounting for Income Taxes. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at current tax rates, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. During 2004 and 2003, the Company recorded valuation allowances against certain of its United States and foreign net deferred tax assets in jurisdictions where the Company has incurred significant losses in recent years. Given such experience, the Company's management could not conclude that it was more likely than not that these net deferred tax assets would be realized. While there were indications that the markets in which the Company operates may have improved in future periods, the Company's management, in accordance with SFAS No. 109, in evaluating the recoverability of these net deferred tax assets, was required to place greater weight on the Company's historical results as compared to projections regarding future taxable income. If the Company generates future taxable income, or should the Company be able to conclude that sufficient taxable income is reasonably assured based on profitable operations, in the appropriate tax jurisdictions, against which these tax attributes may be applied, some portion or all of the valuation allowance will be reversed and a corresponding reduction in income tax expense will be reported in future periods. Approximately \$2.3 million of the valuation allowance relates to the benefit from stock-based compensation. Any reversal of valuation allowance from this item will be reflected as a component of stockholders' equity.

When recording acquisitions, the Company has recorded valuation allowances due to the uncertainty related to the realization of certain deferred tax assets existing at the acquisition dates. The amount of deferred tax assets considered realizable is subject to adjustment in future periods if estimates of future taxable income are changed. Any reversals of valuation allowances recorded in purchase accounting will be reflected as a reduction of goodwill in the period of reversal. For the year ended December 31, 2004, valuation allowances established in purchase accounting were reversed with a corresponding reduction in goodwill of approximately \$3.3 million.

The income tax provision of \$3.9 million in 2004 represents an effective tax rate of negative 45% and the income tax provision of \$11.8 million in 2003 represents an effective tax rate of negative 36%, due to taxable income earned in certain foreign jurisdictions. The income tax benefit of \$22.3 million for 2002

Table of Contents

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

represents an effective tax rate of 35%. The provision (benefit) for income taxes for the years ended December 31, 2004, 2003 and 2002 was, as follows:

	December 31,		
	2004	2003	2002
	(In thousands)		
Federal	\$	\$ 8,437	\$ (18,575)
State and local		784	(2,178)
Foreign taxes	3,947	2,580	(1,540)
	\$ 3,947	\$ 11,801	\$ (22,293)
Current	\$ 3,503	\$ 5,372	\$ (15,405)
Deferred	444	6,429	(6,888)
	\$ 3,947	\$ 11,801	\$ (22,293)

The following reconciles the Company's effective tax rate to the federal statutory rate for the years ended December 31, 2004, 2003 and 2002:

	December 31,		
	2004	2003	2002
	(In thousands)		
Income tax benefit per federal statutory rate	\$ (3,080)	\$ (11,354)	\$ (22,293)
State income taxes, net of federal deduction	(810)	(1,328)	(1,414)
Extraterritorial income exclusion	(350)	(350)	(262)
Nondeductible intangible and goodwill amortization	98	98	183
Other permanent items, net	(514)	(456)	760
Effect of foreign taxes	(415)	(333)	(272)
Change in valuation allowance	7,884	29,130	1,255
Tax credits and other items	1,134	(3,606)	(250)
	\$ 3,947	\$ 11,801	\$ (22,293)

Table of Contents

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

The sources of the Company's deferred income tax assets and liabilities are summarized as follows:

	December 31,	
	2004	2003
	(In thousands)	
Current:		
Employee bonuses and commissions	\$ 31	\$ 314
Warranty reserve	2,493	2,463
Bad debt reserve	201	533
Vacation accrual	833	806
Restructuring accrual	1,545	1,222
Excess and obsolete inventory	3,156	4,093
Other	2,604	988
Valuation allowance	(10,863)	(10,419)
Net current		
Long-term:		
Net operating loss and tax credit carryforward	42,284	38,246
Accumulated other comprehensive income	(7,099)	(5,464)
Depreciation and amortization	(2,454)	(7,898)
Other, net	2,963	3,340
Valuation allowance	(39,403)	(32,896)
Net long-term	\$ (3,709)	\$ (4,672)

The following reconciles the change in the net deferred income tax liability from December 31, 2003 to December 31, 2004, to the deferred income tax provision:

	2004
	(In thousands)
Net change in deferred income tax liability from the preceding table	\$ (963)
Net change in deferred tax liability associated with foreign currency fluctuation	(246)
Net change in deferred tax liability associated with purchase accounting reduction in Goodwill	3,288
Increase in deferred tax liability associated with other comprehensive income	(1,635)
Deferred income tax provision for the period	\$ 444

As of December 31, 2004, the Company had a gross federal net operating loss, alternative minimum tax credit and research and development credit carryforwards of approximately \$85 million, \$2 million and \$4 million, respectively, which may be available to offset future federal income tax liabilities. The federal net operating loss and research and development credit carryforwards expire at various dates through December 31, 2024, the alternative minimum tax

credit carryforward has no expiration date. In addition, as of December 31, 2004, the Company had a gross foreign net operating loss carryforward of \$4 million, which may be available to offset future foreign income tax liabilities and expire at various dates through December 31, 2008.

F-30

Table of Contents

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

The domestic versus foreign component of the Company's net loss before income taxes for the years ended December 31, 2004, 2003 and 2002, was as follows:

	December 31,		
	2004	2003	2002
	(In thousands)		
Domestic	\$ (20,725)	\$ (35,137)	\$ (60,070)
Foreign	11,925	2,697	(3,622)
	\$ (8,800)	\$ (32,440)	\$ (63,692)

(13) Retirement Plans

The Company has a 401(k) profit sharing plan which covers most full-time employees age eighteen or older. Participants may defer up to the maximum amount allowed as determined by law. Participants are immediately vested in their contributions.

The Company may make discretionary contributions based on corporate financial results. In 2002, the Company's contribution for participants in its 401(k) plan was 10% matching on contributions by employees up to 6% of the employee's compensation. In 2003, the Company increased its matching contributions to 25% matching on contributions by employees up to 6% of the employee's compensation; such contribution level was maintained for 2004. The Company's total contributions to the plan were approximately \$698,000, \$635,000 and \$272,000 for the years ended December 31, 2004, 2003 and 2002, respectively. Vesting in the profit sharing contribution account is based on years of service, with most participants fully vested after four years of credited service.

(14) Commitments and Contingencies

The Company has committed to purchase approximately \$5.0 million of parts, components and subassemblies in 2005 and \$2.5 million in 2006. This inventory purchase obligation represents a minimum purchase commitment to ensure the Company has an adequate supply of critical components to meet the demand of its customers. The Company believes these inventory purchases will be consumed in its on-going operations during the respective years of purchase commitment.

The Company has also committed to advance up to \$850,000 to a privately held company in exchange for an exclusive intellectual property license. The amount and timing of this advance is dependent upon the privately held company achieving certain development milestones. As of December 31, 2004, approximately \$50,000 has been advanced under this agreement, which was recorded within research and development expense in the consolidated statement of operations.

Disputes and Legal Actions

The Company is involved in disputes and legal actions arising in the normal course of its business. Currently and historically, the Company's most significant legal actions have involved the application of patent law to complex technologies and intellectual property. The determination of whether such technologies infringe upon the Company's or others' patents is highly subjective. This high level of subjectivity introduces substantial additional risk with regard to the outcome of the Company's disputes and legal actions related to intellectual property. While the Company currently believes that the amount of any ultimate potential loss for currently-known matters would not be material to the Company's financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate potential loss could have a material adverse effect on the Company's financial position or reported results of operations in a particular period. An unfavorable decision, particularly in patent

Table of Contents

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

litigation, could require material changes in production processes and products or result in the Company's inability to ship products or components found to have violated third-party patent rights. The Company accrues loss contingencies in connection with its litigation when it is probable that a loss will occur and the amount of the loss can be reasonably estimated.

In April 2003, the Company filed a claim in the United States District Court for the District of Colorado seeking a declaratory ruling that its new plasma source products Xstreamtm With Active Matching Networktm (Xstream products) are not in violation of U.S. Patents held by MKS Instruments, Inc. (MKS). This case was transferred by the Colorado court to the United States District Court for the District of Delaware for consolidation with a patent infringement suit filed in that court by MKS in May 2003, alleging that the Company's Xstream products infringe five patents held by MKS. On July 23, 2004, a jury returned a verdict of infringement of three MKS patents, which did not stipulate damages. The court has not enjoined the Company from selling the Xstream products. The Company has filed four separate motions to have the verdict set aside based upon defects in the trial. The court has not scheduled any further activity in the case, including trial of the Company's patent invalidity and inequitable conduct defenses, while the post-trial motions are being reviewed. Potential liability, if any, resulting from the jury verdict is indeterminable at this time, and therefore no amount has been accrued by the Company in the accompanying consolidated financial statements.

On June 2, 2004, MKS filed a petition in the District Court in Munich, Germany, alleging infringement by the Company's Xstream products of a counterpart German patent owned by MKS. On August 4, 2004, this court dismissed MKS's petition and assessed costs of the proceeding against MKS. MKS refiled an infringement petition in the District Court of Mannheim. At a hearing held on February 18, 2005, the Mannheim court indicated that a decision on the infringement allegation would be rendered on April 8, 2005. A petition for invalidity of MKS's patent brought by the Company is still pending before the German Federal Patent Court.

On July 12, 2004, the Company filed a complaint in the United States District Court for the District of Delaware against MKS alleging that MKS's Astron reactive gas source products infringe Advanced Energy's U.S. Patent No. 6,046,546. A stipulation of voluntary dismissal of the action was filed by the parties on March 9, 2005, which leaves the Company free to refile its claims upon conclusion of MKS's lawsuit against the Company's Xstream products.

On September 17, 2001, Sierra Applied Sciences, Inc. (Sierra) filed for declaratory judgment asking the U.S. District Court for the District of Colorado to rule that its products did not infringe the Company's U.S. patent no. 5,718,813 and that the patent was invalid. On March 24, 2003, the Court granted the Company's motion to dismiss the case for lack of subject matter jurisdiction. The Court of Appeals for the Federal Circuit affirmed the dismissal on April 13, 2004 as to all of Sierra's current activities, but remanded for findings related to past sales of older products. The case was settled and dismissed on September 2, 2004 under terms of a settlement agreement that provided for no monetary consideration to be paid by either party.

In May 2002, the Company recognized approximately \$4.2 million of litigation damages pertaining to a judgment entered by a jury against the Company and in favor of MKS in a patent-infringement suit in which the Company was the defendant. The Company has entered into a settlement agreement with MKS allowing it to sell the infringing product subsequent to the date of the jury award. The settlement agreement is in effect until all patents subject to the litigation expire. Under the settlement agreement, royalties payable to MKS from sales of the related product were not material in any of the periods presented.

Table of Contents

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

Capital Leases

The Company finances a portion of its property and equipment under capital lease obligations at interest rates averaging approximately 3%. The future minimum lease payments under capital lease obligations as of December 31, 2004 are as follows:

	(In thousands)
2005	\$ 303
2006	225
2007	112
2008	57
2009	40
Total minimum lease payments	737
Less amount representing interest	(22)
Less current portion	(294)
	\$ 421

Operating Leases

The Company has various operating leases for automobiles, equipment, and office and production facilities (see Note 16). Lease expense under operating leases was approximately \$6.2 million, \$6.3 million, and \$6.5 million for the years ended December 31, 2004, 2003 and 2002, respectively.

The future minimum rental payments required under non-cancelable operating leases as of December 31, 2004 are as follows:

	(In thousands)
2005	\$ 6,062
2006	5,492
2007	4,443
2008	3,761
2009	2,957
Thereafter	9,432
	\$ 32,147

Table of Contents

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

(15) Foreign Operations and Major Customers

The Company has operations in the United States, Europe and Asia. The following is a summary of the Company's operations by region:

	Years Ended December 31,		
	2004	2003	2002
	(In thousands)		
Sales (1):			
Originating in U.S. and sold to domestic customers	\$ 207,279	\$ 124,128	\$ 141,637
Originating in U.S. and sold to foreign customers	42,407	35,509	24,607
Originating in Europe and sold to domestic customers	115	57	2,108
Originating in Europe and sold to foreign customers	36,151	24,492	18,672
Originating in Asia Pacific and sold to domestic customers	608		
Originating in Asia Pacific and sold to foreign customers	108,745	78,216	51,874
	\$ 395,305	\$ 262,402	\$ 238,898
Loss from operations:			
United States	\$ (13,603)	\$ (27,639)	\$ (57,305)
Europe	(1,540)	559	(725)
Asia	13,508	4,811	1,865
Intercompany eliminations	91	(863)	(5,820)
	\$ (1,544)	\$ (23,132)	\$ (61,985)
Long-lived assets:			
United States	\$ 25,266	\$ 28,305	
Europe	2,102	1,502	
Asia	21,422	20,040	
	\$ 48,790	\$ 49,847	

(1) These sales amounts do not contemplate where our customers may subsequently transfer our products.

Intercompany sales among the Company's geographic areas are recorded on the basis of intercompany prices established by the Company.

The Company has a major customer (sales in excess of 10% of total sales) that is a manufacturer of semiconductor capital equipment. Sales to this customer accounted for the following percentages of sales for the years ended December 31, 2004, 2003 and 2002:

December 31,

	2004	2003	2002
Applied Materials, Inc.	27%	20%	27%

There were no other customers that represented greater than 10% of the Company's total sales for the years ended December 31, 2004, 2003 and 2002.

Trade accounts receivable from Applied Materials, Inc. were approximately \$7.8 million as of December 31, 2004, which represented approximately 12% of the Company's total trade accounts receivable. At December 31, 2004, trade accounts receivable from ULVAC, Inc. were approximately \$17.4 million, representing approximately 26% of the Company's total trade accounts receivable. No other

F-34

Table of Contents

**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

customers had a trade accounts receivable balance in excess of 10% of the total trade accounts receivable at December 31, 2004.

(16) 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 Chief Executive Officer holds an interest. The leases relating to these spaces expire in 2009, 2011 and 2016, and contain monthly payments of approximately \$87,000, \$69,000 and \$85,000, respectively.

For each of the years ended December 31, 2004 and 2003 approximately \$2.8 million was paid attributable to these leases. For the year ended December 31, 2002, approximately \$2.7 million was paid attributable to these leases. Rent and related amounts are expensed as incurred.

The Company also has an agreement whereby monthly payments of approximately \$12,000 are made to one of the above mentioned limited liability partnerships, which secures future leasing rights on a parcel of land in Colorado. Such amounts are expensed as incurred. Approximately \$132,000 was paid attributable to this agreement for the year ended December 31, 2004, and \$156,000 for each of the years ended December 31, 2003 and 2002.

The Company leased, for business purposes, a condominium owned by a partnership of certain stockholders, including the Company's Chief Executive Officer. The Company paid the partnership \$10,000, \$60,000 and \$67,000 in 2004, 2003 and 2002, respectively. In February 2004, this lease agreement was terminated.

The Company charters aircraft from time to time from a company owned by the Company's Chief Executive Officer. Aggregate payments for the use of such aircraft were \$16,000, \$6,000 and \$103,000 in 2004, 2003 and 2002, respectively.

(17) Concentrations of Credit Risk

Forward Contracts The Company, including its subsidiaries, enters into foreign currency forward contracts with counterparties to mitigate foreign currency exposure from foreign currency denominated trade purchases and intercompany receivables and payables. These derivative instruments are not held for trading or speculative purposes.

To the extent that changes occur in currency exchange rates, the Company is exposed to market risk on its open derivative instruments. This market risk exposure is generally offset by the gain or loss recognized upon the translation of its trade purchases and intercompany receivables and payables. Foreign currency forward contracts are entered into with major commercial United States, Japanese and German banks that have high credit ratings, and the Company does not expect the counterparties to fail to meet their obligations under outstanding contracts. Foreign currency gains and losses under these arrangements are not deferred. The Company generally enters into foreign currency forward contracts with maturities ranging from one to eight months, with contracts outstanding at December 31, 2004 maturing through January 2005. The Company did not seek specific hedge accounting treatment for its foreign currency forward contracts.

Table of Contents

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

At December 31, 2004, the Company held the following foreign currency forward contracts to buy U.S. dollars and sell various foreign currencies:

	Notional Amounts	Market Settlement Amounts	Unrealized (Loss)/Gain
(In thousands)			
Japanese yen contracts	\$ 8,200	\$ 8,263	\$ 63
Taiwanese dollar contracts	4,000	4,031	31
South Korean won contract	1,300	1,315	15
Chinese yuan contract	400	398	(2)
Balance at December 31, 2004	\$ 13,900	\$ 14,007	\$ 107

Other Concentrations of Credit Risk The Company uses financial instruments that potentially subject it to concentrations of credit risk. Such instruments include cash equivalents, short-term investments, accounts receivable, and foreign currency forward contracts. The Company invests its cash in cash deposits, money market funds, commercial paper, and municipal bonds and notes. The Company places its investments with high-credit quality financial institutions and limits the credit exposure from any one financial institution or instrument. To date, the Company has not experienced significant losses on these investments. The Company performs ongoing credit evaluations of its customers' financial condition and generally requires no collateral. Because the Company's receivables are primarily related to companies in the semiconductor capital equipment industry, the Company is exposed to credit risk generally related to this cyclical industry.

(18) Stock Plans

As of December 31, 2004, the Company had three active stock-based compensation plans; the 2003 Stock Option Plan (the 2003 Plan), the 2003 Non-Employee Directors' Stock Option Plan (the 2003 Directors' Plan) and the Employee Stock Purchase Plan (ESPP).

2003 Stock Option Plan The 2003 Plan is a broad-based plan for employees, executive officers, and consultants in which directors of the Company are not allowed to participate. The Board of Directors currently administers this plan, and makes all decisions concerning which employees, executive officers and consultants are granted options, how many to grant to each optionee, when options are granted, how the plan should be properly interpreted, whether to amend or terminate the plan, and whether to delegate administration of the plan to a committee. The 2003 Plan, adopted in 2003, provides for the issuance of up to 3,250,000 shares of common stock. Shares may be issued under the 2003 Plan on exercise of incentive stock options or non-qualified stock options granted under the 2003 Plan or as restricted stock awards. Stock appreciation rights may also be granted under the 2003 Plan, and the shares represented by the stock appreciation rights will be deducted from shares issuable under the 2003 Plan. The exercise price of incentive stock options and non-qualified stock options may not be less than the market value of the Company's common stock on the date of grant. The Company has the discretion to determine the vesting period of options granted under the 2003 Plan, however option grants will generally vest over four years, contingent upon the optionee continuing to be an employee, executive officer or consultant of the Company. The options are exercisable for ten years from the date of grant. The 2003 Plan will expire in February 2013, unless the administrator of the plan terminates it earlier. As of December 31, 2004, approximately 1.3 million shares of common stock were available for grant under this plan.

On January 31, 2005, the Company amended the 2003 Plan to provide additional terms for the restricted stock units. The restricted stock units generally vest as to 10% on the first anniversary of the grant date, an additional 20%

on the second anniversary of the grant date, an additional 30% on the third

F-36

Table of Contents

**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)**

anniversary of the grant date and the remaining 40% on the fourth anniversary of the grant date. Additional terms are set forth in the individual grant agreements between the Company and the award recipient.

2003 Non-Employee Directors Stock Option Plan The 2003 Directors Plan, adopted in 2003, provides for the issuance of up to 150,000 shares of common stock upon the exercise of non-qualified stock options granted under the 2003 Directors Plan. The exercise price of options granted under the 2003 Directors Plan may not be less than the market value of the Company's common stock on the date of grant. Non-employee directors are automatically granted an option to purchase 15,000 shares on the first date elected or appointed as a member of the Company's board, and 5,000 shares on any date re-elected as a member of the board. Options granted on the date first elected or appointed as a member of the Company's board immediately vest as to one-third of the shares subject to the grant, then another one-third on each of the first two anniversaries of the date granted, provided the optionee continues to be a director. Options granted upon re-election are immediately exercisable. As of December 31, 2004, 40,000 shares of common stock were available for grant under this plan.

Employee Stock Purchase Plan In September 1995, stockholders approved an ESPP covering an aggregate of 200,000 shares of common stock. On May 7, 2003, the Company's stockholders approved an amendment to increase the number of common shares reserved for issuance under the plan from 200,000 shares to 400,000 shares. Employees are eligible to participate in the ESPP if employed by the Company for at least 20 hours per week during at least five months per calendar year. Participating employees may have the lessor of 5% their earnings or \$1,250 per six-month period withheld pursuant to the ESPP. The purchase price of common stock purchased under the ESPP is equal to 85% of the lower of the fair value on the commencement date of each offering period or the relevant purchase date. During 2004, 2003 and 2002, employees purchased an aggregate of approximately 65,000, 73,000 and 54,000 shares of common stock under the ESPP, respectively. At December 31, 2004, approximately 90,000 shares remained available for future issuance.

On April 14, 2004, by resolution of the Company's Board of Directors, the Company terminated its 2002 and 2001 Employee Stock Option Plans. Existing stock options outstanding under the 2002 and 2001 Employee Stock Option Plans remain outstanding according to their original terms. At December 31, 2004, options to purchase approximately 406,000 and 423,000 shares of common stock remained outstanding under the 2002 and 2001 Employee Stock Option Plans, respectively.

On May 7, 2003, the Company terminated the 1995 Employee Stock Option Plan and the Non-Employee Directors Stock Option Plan upon stockholder approval of the 2003 Plan and the 2003 Directors Plan; however, existing stock options outstanding under these terminated plans remain outstanding according to their original terms. At December 31, 2004, options to purchase approximately 1.8 million and 67,000 shares of common stock remained outstanding under the 1995 Employee Stock Option Plan and the Non-Employee Directors Stock Option Plan, respectively.

Table of Contents

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

The following summarizes the activity relating to stock options for the years ended December 31, 2004, 2003 and 2002:

	2004		2003		2002	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
(In thousands, except share prices)						
Stock options:						
Employee stock options						
Options outstanding at beginning of period	3,920	\$ 19.95	3,475	\$ 23.18	2,108	\$ 25.07
Granted	1,196	16.99	1,790	14.66	1,920	21.73
Exercised	(117)	9.52	(352)	9.89	(118)	11.70
Terminated	(472)	19.09	(993)	25.28	(435)	29.02
Options outstanding at end of period	4,527	19.53	3,920	19.95	3,475	23.18
Options exercisable at end of period	1,943	22.70	1,230	25.50	1,239	23.25
Weighted-average fair value of options granted during the period	\$8.40		\$7.88		\$12.55	
Price range of outstanding options	\$3.11 - \$60.75		\$0.67 - \$60.75		\$0.67 - \$60.75	
Price range of options terminated	\$0.83 - \$60.75		\$0.83 - \$60.75		\$0.83 - \$60.75	
Non-employee directors stock options						
Options outstanding at beginning of period	104	\$ 19.00	112	\$ 22.64	90	\$ 26.92
Granted	85	13.62	25	10.67	22	15.58
Exercised	(5)	10.67	(8)	6.75		
Terminated	(12)	51.10	(25)	30.90		
	172	15.81	104	19.00	112	22.64

Options outstanding at end of period						
Options exercisable at end of period	122	16.94	80	21.91	62	22.24
Weighted-average fair value of options granted during the period						
	\$9.67		\$7.84		\$11.33	
Price range of outstanding options	\$6.13 - \$46.13		\$6.13 - \$60.75		\$6.13 - \$64.94	
Price range of options terminated	\$6.15 - \$64.94		\$6.13 - \$64.94		\$	

F-38

Table of Contents

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

The following table summarizes information about the stock options outstanding at December 31, 2004 (In thousands except share prices and lives):

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted-Average Remaining Contractual Life	Weighted-Average Exercise Price	Number Exercisable	Weighted-Average Exercise Price
\$3.11 to \$7.70	609	7.7 years	\$ 7.46	267	\$ 7.24
\$7.92 to \$10.37	682	8.0 years	9.58	197	8.96
\$10.67 to \$16.51	495	7.7 years	13.21	206	13.43
\$17.32 to \$19.24	876	7.9 years	18.56	414	18.34
\$20.81 to \$22.30	634	9.1 years	21.88	13	21.95
\$22.52 to \$24.90	574	8.1 years	23.50	252	24.09
\$26.13 to \$38.55	669	6.3 years	33.17	556	32.48
\$40.00 to \$46.13	117	5.0 years	43.79	117	43.79
\$56.13 to \$60.75	43	5.6 years	59.68	43	59.68
	4,699	7.7 years	19.39	2,065	22.36

(19) Fair Value of Financial Instruments

The Company's financial instruments include cash, trade receivables, trade payables, marketable securities, short-term and long-term debt, and foreign currency forward exchange contracts (see Note 17). The fair values of cash, trade receivables, trade payables and short-term debt approximate the carrying values due to the short-term nature of these instruments. Marketable securities are stated at fair value (see Notes 1 and 4). At December 31, 2004 and 2003, the carrying value of long-term debt was \$195.4 million and \$201.7 million, respectively. The carrying value of senior borrowings approximates their fair value due to the variable interest rates associated with the borrowings. At December 31, 2004, the estimated fair value of the Company's 5.25% convertible subordinated notes that are due November 15, 2006 was approximately \$64.6 million, compared to a book value of \$66.2 million. At December 31, 2004, the estimated fair value of the Company's 5.00% convertible subordinated notes that are due September 1, 2006 was approximately \$115.1 million, compared to a book value of \$121.5 million. The fair values of the Company's convertible subordinated notes are based upon quoted market prices. The Company believes that the risk of default on such notes has been inherently factored into such prices.

(20) Supplemental Cash Flow Disclosures

In the first quarter of 2004, the Company made a strategic decision to further focus its marketing and product support resources on its core competencies and reorient its operating infrastructure towards sustained profitability. As a result, the Company sold its Noah chiller business to an unrelated third party for \$797,000 in cash and a \$1.9 million note receivable due March 31, 2009. The note bears interest at 5.0%, payable annually on March 31. The sale included property and equipment with a book value of approximately \$300,000, inventory of approximately \$1.0 million, goodwill and intangible assets net of accumulated amortization of approximately \$900,000, demonstration and customer service equipment of approximately \$140,000, and estimated warranty obligations of approximately \$140,000. The Company recognized a gain on the sale of \$404,000, which has been recorded as other income and expense in the accompanying consolidated statement of operations. In the third quarter of 2004, the Company

purchased equipment of approximately \$71,000 from the buyers of the Noah chiller assets in exchange for an equivalent reduction of the note receivable due March 31, 2009.

F-39

Table of Contents

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

In the second quarter of 2003, as part of the Company's ongoing cost reduction measures, the Company committed to a plan to sell certain inventory and property and equipment assets to an unrelated third party at their respective net book values. These assets were primarily used in the manufacture of a component for the Company's direct current and radio frequency products and were sold on June 30, 2003. In conjunction with the sale, the Company received approximately \$1.6 million in cash and a short-term note receivable for approximately \$1.5 million in exchange for inventory with a carrying value of approximately \$2.1 million and property and equipment with a carrying value of approximately \$1.0 million.

(21) Quarterly Financial Data Unaudited

The following table presents unaudited quarterly financial data for each of the eight quarters in the period ended December 31, 2004. The Company believes that all necessary adjustments have been included in the amounts stated below to present fairly such quarterly information. The operating results for any quarter are not necessarily indicative of results for any subsequent period.

	Quarters Ended							
	Mar. 31,	June 30,	Sept. 30,	Dec. 31,	Mar. 31,	June 30,	Sept. 30,	Dec. 31,
	2003	2003	2003	2003	2004	2004	2004	2004
	(In thousands, except per share data)							
Sales	\$ 56,158	\$ 62,946	\$ 68,567	\$ 74,731	\$ 104,487	\$ 108,869	\$ 93,550	\$ 88,399
Gross profit	17,950	20,273	23,093	26,631	38,414	36,962	29,740	14,563
(Loss) income from operations	(10,885)	(6,825)	(5,741)	319	9,810	8,754	1,855	(21,963)
Net (loss) income	\$ (8,590)	\$ (5,774)	\$ (27,438)	\$ (2,439)	\$ 6,924	\$ 4,470	\$ (1,136)	\$ (23,005)
Diluted (loss) income per share	\$ (0.27)	\$ (0.18)	\$ (0.85)	\$ (0.08)	\$ 0.21	\$ 0.13	\$ (0.03)	\$ (0.70)

The Company had a loss in the fourth quarter of 2004 of \$23.0 million. Pretax charges in the fourth quarter included \$9.2 million to cost of sales for increased excess and obsolete inventory reserves, \$3.8 million to selling, general and administrative for the change in estimate of the useful life of the demonstration equipment (see Note 1), \$3.7 million to restructuring for employee severance and termination costs primarily attributable to the Fort Collins facility (see Note 3), \$3.3 million to impairment of intangible assets related to certain amortizable intangible assets acquired in conjunction with the Company's purchase of Dressler and Aera (see Note 8). These items contributed significantly to the Company's fourth quarter 2004 results. The Company increased its reserve for excess and obsolete inventory in the fourth quarter of 2004, as a result of the fourth quarter strategic management decision to discontinue certain product offerings, the outlook for future periods demand and the declining trend in the Company's sales from the second quarter of 2004 to the fourth quarter of 2004.

The Company had a loss of \$27.4 million in the third quarter of 2003. During this quarter the Company recorded a valuation allowance against certain of its U.S. and foreign net deferred tax assets in jurisdictions where significant losses had been recognized (see Note 12).

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
SCHEDULE II VALUATION AND QUALIFYING ACCOUNTS**

	Balance at Beginning of Period	Additions Due to Acquisitions	Additions Charged to Expense (Recoveries)	Deductions	Balance at End of Period
(In thousands)					
Year ended December 31, 2002:					
Inventory obsolescence reserve	\$ 5,631	\$ 13,704	\$ 5,803	\$ 4,719	\$ 20,419
Allowance for doubtful accounts	1,049	416	1,870	279	3,056
	\$ 6,680	\$ 14,120	\$ 7,673	\$ 4,998	\$ 23,475
Year ended December 31, 2003:					
Inventory obsolescence reserve	\$ 20,419	\$	\$ 3,016	\$ 13,944	\$ 9,491
Allowance for doubtful accounts	3,056		(429)	1,324	1,303
	\$ 23,475	\$	\$ 2,587	\$ 15,268	\$ 10,794
Year ended December 31, 2004:					
Inventory obsolescence reserve	\$ 9,491	\$	\$ 11,262	\$ 6,102	\$ 14,651
Allowance for doubtful accounts	1,303		198	452	1,049
	\$ 10,794	\$	\$ 11,460	\$ 6,554	\$ 15,700

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED BALANCE SHEETS
(In thousands)

	June 30, 2005	December 31, 2004
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents	\$ 67,216	\$ 38,404
Marketable securities	70,571	69,578
Accounts receivable, net	67,089	72,053
Inventories, net	59,021	73,224
Other current assets	2,774	6,140
Total current assets	266,671	259,399
PROPERTY AND EQUIPMENT, net	41,814	44,746
OTHER ASSETS:		
Deposits and other	4,219	6,468
Goodwill	62,819	68,276
Other intangible assets, net	10,019	12,032
Customer service equipment, net	3,306	2,968
Deferred debt issuance costs, net	1,536	2,086
Deferred income tax assets, net	849	
Total assets	\$ 391,233	\$ 395,975
LIABILITIES AND STOCKHOLDERS EQUITY		
CURRENT LIABILITIES:		
Trade accounts payable	\$ 21,163	\$ 17,683
Accrued payroll and employee benefits	8,891	7,788
Income taxes payable	2,118	2,974
Other accrued expenses	12,829	17,191
Customer deposits and deferred revenue	1,749	662
Senior borrowings and capital leases, current portion	2,721	3,726
Accrued interest payable on convertible subordinated notes	2,460	2,460
Total current liabilities	51,931	52,484
LONG-TERM LIABILITIES:		
Senior borrowings and capital leases, net of current portion	3,280	4,679
Deferred income tax liabilities, net		3,709
Convertible subordinated notes payable	187,718	187,718
Other long-term liabilities	2,169	2,407
Total liabilities	245,098	250,997
Commitments and contingencies		
STOCKHOLDERS EQUITY	146,135	144,978

Total liabilities and stockholders' equity	\$ 391,233	\$ 395,975
--	------------	------------

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

F-42

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
(In thousands, except per share amounts)

	Three Months Ended June 30,	
	2005	2004
SALES	\$ 87,386	\$ 108,869
COST OF SALES	55,338	71,907
Gross profit	32,048	36,962
OPERATING EXPENSES:		
Research and development	11,016	12,809
Selling, general and administrative	14,511	15,212
Restructuring charges	1,068	187
Total operating expenses	26,595	28,208
INCOME FROM OPERATIONS	5,453	8,754
OTHER INCOME (EXPENSE):		
Interest income	755	356
Interest expense	(2,691)	(2,765)
Foreign currency gain (loss)	131	(21)
Other income, net	1,086	13
Total other expense	(719)	(2,417)
Income from continuing operations before income taxes	4,734	6,337
Provision for income taxes	(1,430)	(1,867)
INCOME FROM CONTINUING OPERATIONS	3,304	4,470
Gain on sale of discontinued assets	2,645	
Provision for income taxes		
INCOME FROM DISCONTINUED OPERATIONS	2,645	
NET INCOME	\$ 5,949	\$ 4,470
NET INCOME PER BASIC SHARE:		
Income from continuing operations	\$ 0.10	\$ 0.14
Income from discontinued operations	0.08	
BASIC EARNINGS PER SHARE	\$ 0.18	\$ 0.14

NET INCOME PER DILUTED SHARE:			
Income from continuing operations	\$	0.10	\$ 0.13
Income from discontinued operations		0.08	
DILUTED EARNINGS PER SHARE	\$	0.18	\$ 0.13
BASIC WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING		32,797	32,644
DILUTED WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING		33,094	33,187

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

F-43

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENT OF OPERATIONS
(In thousands, except per share amounts)

	Six Months Ended June 30,	
	2005	2004
SALES	\$ 173,526	\$ 213,356
COST OF SALES	112,403	137,980
Gross profit	61,123	75,376
OPERATING EXPENSES:		
Research and development	22,031	26,219
Selling, general and administrative	27,959	30,186
Restructuring charges	2,330	407
Total operating expenses	52,320	56,812
INCOME FROM OPERATIONS	8,803	18,564
OTHER INCOME (EXPENSE):		
Interest income	1,396	785
Interest expense	(5,481)	(5,553)
Foreign currency gain	214	80
Other income, net	1,065	1,116
Total other expense	(2,806)	(3,572)
Income from continuing operations before income taxes	5,997	14,992
Provision for income taxes	(1,959)	(3,598)
INCOME FROM CONTINUING OPERATIONS	4,038	11,394
Gain on sale of discontinued assets	2,645	
Provision for income taxes		
INCOME FROM DISCONTINUED OPERATIONS	2,645	
NET INCOME	\$ 6,683	\$ 11,394
NET INCOME PER BASIC SHARE:		
Income from continuing operations	\$ 0.12	\$ 0.35
Income from discontinued operations	0.08	
BASIC EARNINGS PER SHARE	\$ 0.20	\$ 0.35

NET INCOME PER DILUTED SHARE:			
Income from continuing operations	\$	0.12	\$ 0.34
Income from discontinued operations		0.08	
DILUTED EARNINGS PER SHARE	\$	0.20	\$ 0.34
BASIC WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING		32,776	32,612
DILUTED WEIGHTED-AVERAGE COMMON SHARES OUTSTANDING		32,986	33,435

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

F-44

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Six Months Ended	
	June 30,	
	2005	2004
CASH FLOWS FROM OPERATING ACTIVITIES:		
Net income	\$ 6,683	\$ 11,394
Adjustments to reconcile net income to net cash provided by (used in) operating activities -		
Depreciation and amortization	8,725	9,880
Amortization of deferred debt issuance costs	550	550
Amortization of deferred compensation	139	60
Provision for deferred income taxes	815	1,908
Loss on disposal of property and equipment	653	193
Gain on sale of Noah chiller assets		(404)
Gain on sale of discontinued assets	(2,645)	
Gain on sale of marketable securities	(1,099)	(703)
Changes in operating assets and liabilities		
Accounts receivable, net	2,238	(18,108)
Inventories, net	12,705	(19,303)
Other current assets	2,948	925
Deposits and other	42	(42)
Demonstration and customer service equipment	(1,696)	(1,842)
Trade accounts payable	4,260	16,670
Accrued payroll and employee benefits	1,176	1,923
Customer deposits, deferred revenue and other accrued expenses	(2,823)	(4,798)
Income taxes payable/receivable, net	(248)	1,426
Net cash provided by (used in) operating activities	32,423	(271)
CASH FLOWS FROM INVESTING ACTIVITIES:		
Marketable securities transactions, net	1,366	9,490
Proceeds from sale of assets	3,685	2,088
Purchase of property and equipment	(5,075)	(7,461)
Net cash (used in) provided by investing activities	(24)	4,117
CASH FLOWS FROM FINANCING ACTIVITIES:		
Payments on senior borrowings and capital lease obligations	(2,099)	(5,960)
Proceeds from common stock transactions	436	1,146
Net cash used in financing activities	(1,663)	(4,814)
EFFECT OF CURRENCY TRANSLATION ON CASH	(1,924)	(46)

INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	28,812	(1,014)
CASH AND CASH EQUIVALENTS, beginning of period	38,404	41,522
CASH AND CASH EQUIVALENTS, end of period	\$ 67,216	\$ 40,508
SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:		
Cash paid for interest	\$ 4,931	\$ 5,130
Cash paid for income taxes, net	\$ 1,596	\$ 828
Assets sold for note receivable	\$	\$ 1,912

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

F-45

Table of Contents

**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED)**

(1) Basis of Presentation and Summary of Significant Accounting Policies

In the opinion of management, the accompanying unaudited condensed consolidated balance sheets, statements of operations and cash flows contain all adjustments, consisting of only normal, recurring adjustments necessary to present fairly the financial position of Advanced Energy Industries, Inc., a Delaware corporation, and its wholly owned subsidiaries (the Company) at June 30, 2005 and December 31, 2004, and the results of their operations for the three- and six-month periods ended June 30, 2005 and 2004, and cash flows for the six-month periods ended June 30, 2005 and 2004.

The unaudited condensed consolidated financial statements presented herein have been prepared in accordance with the instructions to Form 10-Q and do not include all the information and note disclosures required by accounting principles generally accepted in the United States. The condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements and notes thereto contained in the Company's Annual Report on Form 10-K/A for the year ended December 31, 2004, filed with the Securities and Exchange Commission on July 11, 2005.

The preparation of the Company's condensed consolidated financial statements requires the Company's management to make certain estimates and assumptions that affect the amounts reported and disclosed in the condensed consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

Estimates and Assumptions The preparation of the Company's condensed consolidated financial statements in conformity with accounting principles generally accepted in the United States requires the Company's 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, allocating purchase price among the fair values of assets acquired and liabilities assumed, accounting for income taxes, and assessing excess and obsolete inventory and various others items. The Company 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.

New Accounting Pronouncements In December 2004, the Financial Accounting Standards Board (FASB) reissued Statement of Financial Accounting Standard (SFAS) No. 123, Accounting for Stock-Based Compensation as SFAS No. 123(R), Share Based Compensation. This statement replaces SFAS No. 123, amends SFAS No. 95, Statement of Cash Flows, and supersedes Accounting Principles Board (APB) Opinion No. 25, Accounting for Stock Issued to Employees. SFAS No. 123(R) requires companies to apply a fair-value based measurement method in accounting for share-based payment transactions with employees and to record compensation expense for all share-based awards granted, and to awards modified, repurchased or cancelled after the required effective date. Compensation expense for outstanding awards for which the requisite service had not been rendered as of the effective date will be recognized over the remaining service period using the compensation cost calculated for pro forma disclosure purposes under SFAS No. 123, adjusted for expected forfeitures. Additionally, SFAS No. 123(R) will require entities to record compensation expense for employee stock purchase plans that may not have previously been considered compensatory under the existing rules. SFAS No. 123(R) will be effective for the first annual period beginning after June 15, 2005, which is the Company's fiscal year beginning January 1, 2006. The Company anticipates adopting the provisions of SFAS No. 123(R) using a modified prospective application. This statement may have a significant impact on the Company's

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

results of operations as the Company will be required to record compensation expense in the consolidated statement of operations rather than disclose the impact within its notes to the consolidated financial statements.

In November 2004, the FASB issued SFAS No. 151, *Inventory Costs*, an amendment of Accounting Research Bulletin No. 43, Chapter 4, *Inventory Pricing*. SFAS No. 151 clarifies that abnormal amounts of idle facility expense, freight, handling costs, and wasted materials (spoilage) should be recognized as current-period charges. In addition, it requires that allocation of fixed production overheads to the costs of conversion be based on the normal capacity of the production facilities. SFAS No. 151 will be effective for inventory costs incurred during fiscal years beginning after June 15, 2005 and will be applied on a prospective basis by the Company for the fiscal year beginning January 1, 2006. The Company is currently evaluating the impact that adoption of SFAS No. 151 will have on its financial position and results of operations.

On June 9, 2005, the FASB issued SFAS No. 154, *Accounting Changes and Error Corrections*. SFAS No. 154 replaces APB Opinion No. 20, *Accounting Changes*, and SFAS No. 3, *Reporting Accounting Changes in Interim Financial Statements*, and changes the requirements for the accounting for and reporting of a change in accounting principle. SFAS No. 154 applies to all voluntary changes in accounting principle. It also applies to changes required by an accounting pronouncement in the unusual instance that the pronouncement does not include specific transition provisions. SFAS No. 154 must be adopted for accounting changes and corrections of errors made in fiscal years beginning after December 15, 2005. Early adoption is permitted for accounting changes and corrections of errors made in fiscal years beginning after the date SFAS No. 154 is issued. The Company does not expect the adoption of SFAS No. 154 to have a material impact on its financial results.

Revenue Recognition The Company's standard shipping term is freight on board (FOB) shipping point, for which revenue is recognized upon shipment of its products, at which time title passes to the customer, the price is fixed and collectability is reasonably assured. For certain customers, the Company has FOB destination terms, for which revenue is recognized upon receipt of the products by the customer, at which time title passes to the customer, the price is fixed and collectability is reasonably assured. Generally, the Company does not have obligations to its customers after its products are shipped under FOB shipping point terms or after its products are received by the customer under FOB destination terms, other than pursuant to warranty obligations. In limited instances, the Company provides installation of its products. In accordance with Emerging Issues Task Force (EITF) Issue 00-21 *Accounting for Revenue Arrangements With Multiple Deliverables*, the Company allocates revenue based on the fair value of the delivered item, generally the product, and the undelivered item, installation, based on their respective fair values. Revenue related to the undelivered item is deferred until the services have been completed. In certain limited instances, some of the Company's customers have negotiated product acceptance provisions relative to specific orders. Under these circumstances, the Company defers revenue recognition until the related acceptance provisions have been satisfied. Revenue deferrals are reported as customer deposits and deferred revenue in the condensed consolidated balance sheets.

In certain instances, the Company requires its customers to pay for a portion or all of their purchases prior to the Company building or shipping these products. Cash payments received prior to shipment are recorded as customer deposits and deferred revenue in the condensed consolidated balance sheets, and then recognized as revenue as appropriate based upon the shipping terms of the products. The Company does not offer price protections to its customers or allow returns, unless covered by its normal policy for repair of defective products.

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

Warranty Policy The Company offers warranty coverage for its products for periods typically ranging from 12 to 24 months after shipment. The Company estimates 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 are adjusted. The Company's determination of the appropriate level of warranty accrual is subjective and based on estimates. The industries in which the Company operates are subject to rapid technological change and, as a result, the Company periodically introduces newer, more complex products, which tend to result in increased warranty costs. Estimated warranty costs are recorded at the time of sale of the related product, and are recorded within cost of sales in the condensed consolidated statements of operations.

The following table summarizes the activity in our warranty reserve during the three- and six-month periods ended June 30, 2005 and 2004:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
	(In thousands)			
Balance at beginning of period	\$ 6,681	\$ 6,511	\$ 6,791	\$ 6,612
Provisions	2,920	3,139	5,967	5,459
Usages	(2,720)	(3,219)	(5,877)	(5,640)
Balance at end of period	\$ 6,881	\$ 6,431	\$ 6,881	\$ 6,431

Stock-Based Compensation At June 30, 2005, the Company had three active stock-based compensation plans, which are more fully described in Note 18 of the Company's Form 10-K/A for the year ended December 31, 2004. The Company accounts for employee stock-based compensation using the intrinsic value method prescribed by APB Opinion No. 25, *Accounting for Stock Issued to Employees* and related interpretations. APB Opinion No. 25 requires the use of the intrinsic value method, which measures compensation cost as the excess, if any, of the quoted market price of the stock at the measurement date over the amount an employee must pay to acquire the stock. With the exception of certain options granted in 1999 and 2000 by a shareholder of Sekidenko, Inc., prior to its acquisition by the Company, all options granted under these plans have an exercise price equal to the market value of the underlying common stock on the date of grant, therefore no stock-based compensation cost is reflected in the Company's net income. The Company records compensation expense related to the grants of restricted stock units, over the period the units vest, typically four years. Had compensation cost for the Company's plans been determined consistent with the fair value-based method prescribed by SFAS No. 123,

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

Accounting for Stock-Based Compensation, the Company's net income would have decreased to the following adjusted amounts:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
(In thousands, except per share data)				
Net income:				
As reported	\$ 5,949	\$ 4,470	\$ 6,683	\$ 11,394
Adjustment for stock-based compensation determined under fair value based method for all awards(a), (b)	(2,056)	(2,897)	(3,990)	(5,683)
Adjustment for compensation expense recognized in net income(a)	83		139	60
As adjusted	\$ 3,976	\$ 1,573	\$ 2,832	\$ 5,771
Basic earnings per share:				
As reported	\$ 0.18	\$ 0.14	\$ 0.20	\$ 0.35
As adjusted	0.12	0.05	0.09	0.18
Diluted earnings per share:				
As reported	\$ 0.18	\$ 0.13	\$ 0.20	\$ 0.34
As adjusted	0.12	0.05	0.09	0.17

- (a) Compensation expense in 2005 and 2004 is presented prior to income tax effects due to the Company fully reserving against the related deferred tax asset.
- (b) Cumulative compensation cost recognized with respect to options that are forfeited prior to vesting is reflected as a reduction of compensation expense in the period of forfeiture. Compensation expense related to awards granted under the Company's employee stock purchase plan is estimated until the period in which settlement occurs, as the number of shares of common stock awarded and the purchase price are not known until settlement.

For SFAS No. 123 purposes, the fair value of each option grant and purchase right granted under the Employee Stock Purchase Plan (ESPP) are estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
OPTIONS:				
Risk-free interest rates	3.9%	2.7%	3.5%	3.0%
Expected dividend yield rates	0.0%	0.0%	0.0%	0.0%

Edgar Filing: ADVANCED ENERGY INDUSTRIES INC - Form 424B2

Expected lives	4.9 years	3.2 years	3.1 years	3.0 years
Expected volatility	79.1%	76.0%	72.2%	76.3%
ESPP:				
Risk-free interest rates	2.6%	1.2%	2.5%	1.2%
Expected dividend yield rates	0.0%	0.0%	0.0%	0.0%
Expected lives	0.5 years	0.5 years	0.5 years	0.5 years
Expected volatility	61.4%	69.1%	61.9%	70.5%

F-49

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

Based on the Black-Scholes option pricing model, the weighted-average estimated fair value of stock option grants was \$7.14 and \$10.23 for the three months ended June 30, 2005 and 2004, respectively, and was \$3.79 and \$11.00 for the six months ended June 30, 2005 and 2004, respectively. The weighted-average estimated fair value of purchase rights granted under the ESPP was \$2.93 and \$5.29 for the three months ended June 30, 2005 and 2004, respectively, and was \$2.89 and \$5.35 for the six months ended June 30, 2005 and 2004, respectively.

The total fair value of options granted was computed to be approximately \$178,000 and \$2.1 million for the three-month periods ended June 30, 2005 and 2004, respectively. The total fair value of options granted for the six-month periods ended June 30, 2005 and 2004, was computed to be approximately \$1.1 million and \$7.5 million, respectively. These amounts are amortized ratably over the vesting period of the options for the purpose of calculating the pro forma disclosure above. The number of stock options exercised during the three month periods ended June 30, 2005 and 2004 was approximately 41,000 and 54,000, respectively, at a weighted average exercise price per share of \$7.50 and \$8.93, respectively. The number of stock options exercised during the six month periods ended June 30, 2005 and 2004 was approximately 56,000 and 79,000, respectively, at a weighted average exercise price per share of \$7.60 and \$10.54, respectively.

The Company granted approximately 2,000 restricted stock units to certain employees during the three-month period ended June 30, 2005, and 227,000 over the six-month period June 30, 2005. The Company did not grant any restricted stock units in 2004. Upon granting of these units, deferred compensation representing an estimate of the units expected to vest at the market value at the date of grant is recorded in shareholders' equity and subsequently amortized over the periods during which the units vest, generally 4 years. Amortization of deferred compensation relating to the restricted stock units of \$83,000 and \$139,000 was recorded for the three-month and six-month periods ended June 30, 2005, respectively.

The Company will adopt the provisions of SFAS No. 123(R) as of January 1, 2006, as further discussed under the heading *New Accounting Pronouncements* above. The adoption of this statement may have a significant impact on the Company's results of operations as the Company will be required to record compensation expense in the consolidated statement of operations rather than disclose the impact within its notes to the consolidated financial statements.

Income Taxes The Company accounts for income taxes in accordance with SFAS No. 109, *Accounting for Income Taxes*. SFAS No. 109 requires deferred tax assets and liabilities to be recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at current tax rates, as well as for the expected tax benefit of net operating loss and tax credit carryforwards. During the third quarter of 2003, the Company recorded valuation allowances against certain of its United States and foreign net deferred tax assets in jurisdictions where the Company has incurred significant losses. Given such experience, the Company's management could not conclude that it was more likely than not that these net deferred tax assets would be realized. Accordingly, the Company's management, in accordance with SFAS No. 109, in evaluating the recoverability of these net deferred tax assets, was required to place greater weight on the Company's historical results as compared to projections regarding future taxable income. The Company will continue to evaluate its valuation allowance on a quarterly basis, and may in the future reverse some portion or all of its valuation allowance and recognize a reduction in income tax expense or increase its valuation allowance for previously unreserved assets and recognize an increase in income tax expense. A portion of the valuation allowance relates to the benefit from stock-based compensation. Any reversal of valuation allowance from this item will be reflected as an increase in additional paid in capital. When recording acquisitions, the Company has recorded valuation allowances due to the uncertainty related to the realization of certain deferred tax

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

assets existing at the acquisition dates. Any reversal of valuation allowances recorded in purchase accounting is reflected as a reduction of goodwill in the period of reversal.

Commitments and Contingencies 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 potential 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 potential 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 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.

Goodwill and Other Intangible Assets Goodwill represents the excess of the cost over the fair market value of net tangible and identifiable intangible assets of acquired businesses.

Goodwill and certain other intangible assets with indefinite lives are not amortized. Instead, goodwill and other indefinite-lived intangible assets are subject to periodic (at least annual) tests for impairment. The Company performs the annual test for impairment during the fourth quarter. For the periods presented, the Company does not have any indefinite-lived intangible assets, other than goodwill. Impairment testing is performed in two steps: (i) the Company assesses goodwill for potential impairment by comparing the fair value of its reporting unit with its carrying value, and (ii) if potential impairment is indicated because the reporting unit's fair value is less than its carrying amount, the Company measures the amount of impairment loss by comparing the implied fair value of goodwill with the carrying amount of that goodwill.

Finite-lived intangible assets continue to be amortized using the straight-line method over their estimated useful lives and are reviewed for impairment whenever events or circumstances indicate that their carrying amount may not be recoverable.

Reclassifications Certain prior period amounts have been reclassified to conform to the current period presentation.

Foreign Currency Translation The functional currency of the Company's foreign subsidiaries is their local currency, with the exception of the Company's manufacturing facility in China where the United States dollar is currently 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 the Company and its foreign subsidiaries are included in income.

The Company recognized foreign currency gains of \$131,000 and \$214,000 for the three- and six-month periods ended June 30, 2005, respectively, and a loss of \$21,000 and a gain of \$80,000 for the three- and six-month periods ended June 30, 2004, respectively.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

(2) Restructuring Charges

Restructuring charges include the costs associated with actions taken by the Company primarily in response to cyclical downturns in its business in the semiconductor capital equipment industry. These charges consist of employee severance and termination costs, facility closure costs and impairments of facility-related assets.

The following table summarizes the components of the restructuring charges, the payments and non-cash items, and the remaining accrual as of June 30, 2005:

	Employee Severance and Termination Costs	Facility Closure Costs	Impairment of Facility-related Assets	Total Restructuring Charges
(In thousands)				
December 31, 2003 balance	\$ 560	\$ 2,615	\$	\$ 3,175
First quarter charge	220			220
Second quarter charge	187			187
Third quarter charge	57	31		88
Third quarter reversal	(127)	(126)		(253)
Fourth quarter charge	3,639	31		3,670
Total net restructuring charges 2004	3,976	(64)		3,912
Payments in 2004	(1,243)	(1,430)		(2,673)
December 31, 2004 balance	3,293	1,121		4,414
First quarter charge	1,262			1,262
Second quarter charge	475	4	589	1,068
Payments in 2005	(4,302)	(349)		(4,651)
Write-off of facility-related assets in 2005			(589)	(589)
June 30, 2005 balance	\$ 728	\$ 776	\$	\$ 1,504

For the first three quarters of 2004, the Company recorded restructuring charges totaling \$495,000, which primarily consisted of the recognition of expense for involuntary employee termination benefits associated with headcount reductions of approximately 50 employees in the Company's United States operations. All affected employees were terminated prior to the respective quarter ends. Additionally, in the third quarter, the Company reversed \$253,000 of previously recorded charges due to variances from the original estimates used to establish the Company's reserve due to some voluntary employee terminations prior to his or her agreed upon termination date (no longer meeting the requirements to receive a severance payment) and negotiated lease termination payments below original estimates. As a result, the Company's restructuring accrual balance for employee severance and termination

costs was \$0 at September 30, 2004.

In the fourth quarter of 2004, the Company recorded restructuring charges of \$3.7 million, which primarily consisted of employee termination and related costs associated with the involuntary severance of 212 employees, including 60 agency employees, at the Company's Fort Collins facility. All of such charges relate to separation costs anticipated to be paid to the terminated employees, in cash, by the end of the third quarter of 2005. The need to reduce headcount in Fort Collins resulted primarily from the transfer of a substantial portion of the Company's manufacturing operations to Shenzhen, China.

F-52

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

Due to the continuing shift of the Company's volume manufacturing to Shenzhen, China and other cost reduction initiatives, the Company recorded restructuring charges of \$1.3 million in the first quarter of 2005 related to the involuntary severance of the 212 employees at the Company's Fort Collins facility (discussed above) and 7 employees in the Company's European locations. All of such charges relate to separation costs anticipated to be paid to the terminated employees, in cash, by the end of the third quarter of 2005. In the second quarter of 2005, we recorded \$1.1 million of restructuring charges, of which \$475,000 primarily related to employee severance and termination costs for a few employees in our Japanese and German operations, all of which was paid prior to June 30, 2005, and \$589,000 related to the impairment of facilities-related assets in the United States.

We expect to pay the remaining accrual for employee severance and termination costs of approximately \$728,000 by the end of the third quarter of 2005. The remaining facility closing liability is expected to be paid over the remaining lease term expiring at the end of 2006 and is reflected net of expected sublease income of \$83,000.

(3) Income Taxes

The income tax provision on income from continuing operations was \$1.4 million for the second quarter of 2005 and represents an effective tax rate of 30% and the income tax provision on income from continuing operations was \$1.9 million for the second quarter of 2004 and represents an effective rate of 29%. The income tax provision on income from continuing operations was \$2.0 million for the first six months of 2005 and represents an effective tax rate of 33% and the income tax provision on income from continuing operations was \$3.6 million for the first six months of 2004 and represents an effective rate of 24%. The increases in the effective tax rate from the 2004 periods to the 2005 periods are due to taxable income earned in certain foreign jurisdictions.

As of June 30, 2005, the Company had a gross federal net operating loss, alternative minimum tax credit and research and development credit carryforwards of approximately \$88 million, \$2 million and \$4 million, respectively, which may be available to offset future federal income tax liabilities. The federal net operating loss and research and development credit carryforwards expire at various dates through December 31, 2024, the alternative minimum tax credit carryforward has no expiration date. In addition, as of June 30, 2005, the Company had a gross foreign net operating loss carryforward of \$1 million, which may be available to offset future foreign income tax liabilities and expires at various dates through December 31, 2008.

(4) Discontinued Operations

On June 24, 2005, the Company made a strategic decision to sell the assets of its EMCO product line to an unrelated third party for net cash proceeds of \$3.7 million, as this product line was not critical to the Company's core operations. The sale included assets with a book value of approximately \$663,000, comprised of \$515,000 of accounts receivable, \$71,000 of inventory, \$42,000 of fixed assets, and \$35,000 of prepaid expenses, and liabilities of approximately \$94,000. In accordance with SFAS No. 142, "Goodwill and Other Intangible Assets", goodwill of \$471,000 was allocated to the sale based upon its estimated fair value relative to the portion of the reporting unit that will be retained. The Company recognized a gain on the sale of \$2.6 million, which is recorded in discontinued operations in the statement of operations. The EMCO product line has not represented a significant portion of the Company's operations, with revenues representing from 1.4% to 3.5% of quarterly consolidated sales from 2003 through its sale on June 24, 2005, and represents an insignificant portion of the Company's operating and net income for all period presented.

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

(5) Marketable Securities

Marketable securities consisted of the following:

	June 30, 2005	December 31, 2004
(In thousands)		
Commercial paper	\$ 42,423	\$ 43,459
Municipal bonds and notes	23,620	20,332
Institutional money markets	4,528	5,787
Total marketable securities	\$ 70,571	\$ 69,578

These marketable securities are classified as available-for-sale and are stated at period end market value. The commercial paper consists of high credit quality, short-term preferreds with maturities or reset dates of approximately 120 days.

(6) Accounts Receivable

Accounts receivable consisted of the following:

	June 30, 2005	December 31, 2004
(In thousands)		
Domestic	\$ 22,084	\$ 16,612
Foreign	40,357	51,047
Allowance for doubtful accounts	(971)	(1,049)
Trade accounts receivable	61,470	66,610
Other	5,619	5,443
Total accounts receivable	\$ 67,089	\$ 72,053

(7) Inventories

Inventories include costs of materials, direct labor and manufacturing overhead. Inventories are stated at the lower of cost or market, computed on a first-in, first-out basis and are presented net of reserves for obsolete and excess inventory. Inventory is written down or written off when it becomes obsolete, generally because of engineering changes to a product or discontinuance of a product line, or when it is deemed excess. These determinations involve the exercise of significant judgment by management, and as demonstrated in recent periods, demand for the Company's products is volatile and changes in expectations regarding the level of future sales can result in substantial charges against earnings for obsolete and excess inventory. Inventories consisted of the following:

	June 30, 2005	December 31, 2004
--	--------------------------	------------------------------

	(In thousands)	
Parts and raw materials	\$ 44,310	\$ 54,069
Work in process	4,503	4,491
Finished goods	10,208	14,664
Total inventories	\$ 59,021	\$ 73,224

F-54

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

(8) Goodwill and Other Intangible Assets

Goodwill and other intangible assets consisted of the following as of June 30, 2005:

	Gross Carrying Amount	Cumulative Effect of Changes in Exchange Rates	Accumulated Amortization	Net Carrying Amount	Weighted- Average Useful Life (Years)
(In thousands, except weighted-average useful life)					
Other intangible assets:					
Technology-based	\$ 7,000	\$ 1,463	\$ (5,687)	\$ 2,776	5
Contract-based	1,200	221	(1,409)	12	4
Trademarks and other	8,500	2,025	(3,294)	7,231	17
Total other intangible assets	16,700	3,709	(10,390)	10,019	11
Goodwill	53,213	9,606		62,819	
Total goodwill and other intangible assets	\$ 69,913	\$ 13,315	\$ (10,390)	\$ 72,838	

Goodwill and other intangible assets consisted of the following as of December 31, 2004:

	Gross Carrying Amount	Cumulative Effect of Changes in Exchange Rates	Accumulated Amortization	Net Carrying Amount	Weighted- Average Useful Life (Years)
(In thousands, except weighted-average useful life)					
Other intangible assets:					
Technology-based	\$ 7,304	\$ 1,741	\$ (5,290)	\$ 3,755	6
Contract-based	1,200	222	(1,386)	36	4
Trademarks and other	8,500	2,689	(2,948)	8,241	17
Total other intangible assets	17,004	4,652	(9,624)	12,032	11
Goodwill	55,104	13,172		68,276	
	\$ 72,108	\$ 17,824	\$ (9,624)	\$ 80,308	

Total goodwill and other intangible
assets

When recording acquisitions, we have recorded income tax valuation allowances due to the uncertainty related to the realization of certain deferred tax assets existing at the acquisition dates. During the first half of 2005, due to the utilization of these net operating losses, approximately \$1.4 million of valuation allowance established in purchase accounting was reversed, with a corresponding reduction in goodwill.

F-55

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

Aggregate amortization expense related to other intangibles for the three-month periods ended June 30, 2005 and 2004 was \$518,000 and \$1.1 million, respectively, and was approximately \$1.1 million and \$2.3 million for the six-month periods ended June 30, 2005 and 2004, respectively. Estimated amortization expense related to the Company's acquired intangibles fluctuates with changes in foreign currency exchange rates between the United States dollar and the Japanese yen and the euro. Estimated amortization expense related to acquired intangibles for each of the five years 2005 through 2009 is as follows:

	Estimated Amortization Expense
	(In thousands)
2005	\$ 2,173
2006	2,016
2007	1,009
2008	876
2009	474

(9) Stockholders' Equity

Stockholders' equity consisted of the following (in thousands, except par value):

	June 30, 2005	December 31, 2004
	(In thousands)	
Common stock, \$0.001 par value, 70,000 shares authorized, 32,816 and 32,760 shares issued and outstanding, respectively	\$ 33	\$ 33
Additional paid-in capital	146,276	144,500
Retained deficit	(6,112)	(12,795)
Deferred compensation	(1,201)	
Unrealized holding gains on available-for-sale securities, net of tax	520	1,051
Cumulative translation adjustments, net of tax	6,619	12,189
Total stockholders' equity	\$ 146,135	\$ 144,978

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

(10) Comprehensive Income

Comprehensive income for the Company consists of net income, foreign currency translation adjustments and net unrealized holding gains on available-for-sale marketable securities as presented below (in thousands):

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
Net income, as reported	\$ 5,949	\$ 4,470	\$ 6,683	\$ 11,394
Adjustment to arrive at comprehensive net income, net of taxes:				
Unrealized holding gain on available-for-sale marketable securities	(23)	236	(41)	334
Reclassification adjustment for amounts included in net income related to sales of securities	(882)		(490)	(294)
Cumulative translation adjustments	(2,632)	(1,926)	(5,570)	(991)
Comprehensive income	\$ 2,412	\$ 2,780	\$ 582	\$ 10,443

(11) Convertible Subordinated Notes Payable

The Company has two convertible subordinated notes totaling \$187.7 million as follows:

Approximately \$121.5 million of 5.0% convertible subordinated notes outstanding (5.0% Notes). These notes mature September 1, 2006, with interest payable on March 1st and September 1st of each year. At June 30, 2005, approximately \$2.0 million of interest expense related to the 5.0% Notes was accrued as a current liability.

Approximately \$66.2 million of 5.25% convertible subordinated notes outstanding (5.25% Notes). These notes mature November 15, 2006, with interest payable on May 15th and November 15th each year. At June 30, 2005, approximately \$435,000 of interest expense related to the 5.25% Notes was accrued as a current liability.

(12) Commitments and Contingencies

The Company has inventory purchase commitments of approximately \$2.5 million for the remainder of 2005 and \$2.5 million for 2006 of parts, components and subassemblies from various suppliers. These inventory purchase obligations consist of minimum purchase commitments to ensure the Company has an adequate supply of critical components to meet the demand of its customers. The Company believes that these purchase commitments will be consumed in its on-going operations in the respective periods.

The Company has also committed to advance up to \$850,000 to a privately held company in exchange for an exclusive intellectual property license. The amount and timing of this advance is dependent upon the privately held company achieving certain development milestones. As of June 30, 2005, approximately \$200,000 has been advanced under this agreement, which was recorded within research and development expense in the condensed consolidated statement of operations.

Disputes and Legal Actions

The Company is involved in disputes and legal actions arising in the normal course of its business. Currently and historically, the Company's most significant legal actions have involved the application of

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

patent law to complex technologies and intellectual property. The determination of whether such technologies infringe upon the Company's or others' patents is highly subjective. This high level of subjectivity introduces substantial additional risk with regard to the outcome of the Company's disputes and legal actions related to intellectual property. While the Company currently believes that the amount of any ultimate potential loss for currently-known matters would not be material to the Company's financial position, the outcome of these actions is inherently difficult to predict. In the event of an adverse outcome, the ultimate potential loss could have a material adverse effect on the Company's financial position or reported results of operations in a particular period. An unfavorable decision, particularly in patent litigation, could require material changes in production processes and products or result in the Company's inability to ship products or components found to have violated third-party patent rights. The Company accrues loss contingencies in connection with its litigation when it is probable that a loss will occur and the amount of the loss can be reasonably estimated.

In April 2003, the Company filed a claim in the United States District Court for the District of Colorado seeking a declaratory ruling that its new plasma source products Xstream™ With Active Matching Network™ (Xstream products) are not in violation of Patents held in the United States by MKS Instruments, Inc. (MKS). This case was transferred by the Colorado court to the United States District Court for the District of Delaware for consolidation with a patent infringement suit filed in that court by MKS in May 2003, alleging that the Company's Xstream products infringe five patents held by MKS. On July 23, 2004, a jury returned a verdict of infringement of three MKS patents, which did not stipulate damages. The court has not enjoined the Company from selling the Xstream products. The Company has made a motion to the court for judgment as a matter of law in its favor notwithstanding the verdict, or in the alternative, a new trial on the question of infringement, as well as for the court to consider the Company's challenge to the validity of MKS's patents. A trial on the Company's remaining defenses is scheduled to commence on October 31, 2005. Potential liability is indeterminable at this time pending trial of these remaining defenses, and therefore no amount has been accrued by the Company in the accompanying condensed consolidated financial statements.

On June 2, 2004, MKS filed a petition in the District Court in Munich, Germany, alleging infringement by the Company's Xstream products of a counterpart German patent owned by MKS. On August 4, 2004, this court dismissed MKS's petition and assessed costs of the proceeding against MKS. MKS refiled an infringement petition in the District Court of Mannheim. On April 8, 2005, the Mannheim court issued a judgment against us for infringement of MKS's patent, which did not specify damages. No liability is anticipated as the accused product has not been made or sold in Germany. A petition for invalidity of MKS's patent brought by the Company is still pending before the German Federal Patent Court.

On July 12, 2004, the Company filed a complaint in the United States District Court for the District of Delaware against MKS alleging that MKS's Astron reactive gas source products infringe Advanced Energy's United States Patent No. 6,046,546. The case was voluntarily dismissed on March 11, 2005 under an agreement that leaves the Company free to refile its claims upon conclusion of MKS's lawsuit against the Company's Xstream products.

(13) 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 certain 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

Table of Contents**ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES****NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)**

treasury stock methods), if securities containing potentially dilutive common shares (convertible notes payable, stock options and restricted stock units) had been converted to such common shares, and if such assumed conversion is dilutive. As of June 30, 2005 and 2004, stock options and restricted stock units totaling approximately 4.1 million and 4.3 million, respectively, were outstanding. Of these amounts, 2.8 million and 3.0 million stock options for the three months ended June 30, 2005 and 2004, respectively, and 3.0 million and 2.2 million for the six months ended June 30, 2005 and 2004, respectively, are not included in the computation of diluted earnings per share because the effect of including such options in the computation would be anti-dilutive. Potential shares of common stock issuable upon conversion of the Company's convertible subordinated notes payable were 5.4 million at both June 30, 2005 and 2004. For the three and six months ended June 30, 2005 and 2004, the affect of potential conversion of the Company's convertible subordinated notes payable was not included in this computation because to do so would be anti-dilutive.

The following is a reconciliation of the numerators and denominators used in the calculation of basic and diluted EPS for the three and six months ended June 30, 2005 and 2004:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
(In thousands, except per share data)				
Earnings per common share basic				
Net income	\$ 5,949	\$ 4,470	\$ 6,683	\$ 11,394
Weighted average common shares outstanding	32,797	32,644	32,776	32,612
Earnings per common share basic	\$ 0.18	\$ 0.14	\$ 0.20	\$ 0.35
Earnings per common share assuming dilution				
Net income	\$ 5,949	\$ 4,470	\$ 6,683	\$ 11,394
Weighted average common shares outstanding	32,797	32,644	32,776	32,612
Effect of dilutive securities:				
Stock options and restricted stock units	297	543	210	823
Convertible subordinated debt				
Potentially dilutive common shares	297	543	210	823
Adjusted weighted average common shares outstanding	33,094	33,187	32,986	33,435
Earnings per common share assuming dilution	\$ 0.18	\$ 0.13	\$ 0.20	\$ 0.34

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

(14) Foreign Operations

The Company has operations in the United States, Europe and Asia Pacific. The following is a summary of the Company's operations by region:

	Three Months Ended June 30,		Six Months Ended June 30,	
	2005	2004	2005	2004
(In thousands)				
Sales:				
Originated and sold in the United States	\$ 46,275	\$ 59,070	\$ 91,007	\$ 117,872
Originated in United States and sold outside the United States	6,026	15,096	11,828	28,596
Originated in Europe and sold in the United States				112
Originated in Europe and sold outside the United States	6,406	8,436	13,592	16,948
Originated in Asia Pacific and sold outside the United States	28,679	26,267	57,099	49,828
	\$ 87,386	\$ 108,869	\$ 173,526	\$ 213,356
Income (loss) from operations:				
United States	\$ (573)	\$ 4,428	\$ (2,688)	\$ 7,610
Europe	(30)	286	173	898
Asia Pacific	5,161	5,230	10,353	12,616
Intercompany eliminations	895	(1,190)	965	(2,560)
	\$ 5,453	\$ 8,754	\$ 8,803	\$ 18,564

	June 30, 2005	December 31, 2004
(In thousands)		
Long-lived assets:		
United States	\$ 24,130	\$ 25,266
Europe	1,798	2,102
Asia Pacific	20,188	21,422
	\$ 46,116	\$ 48,790

Intercompany sales among the Company's geographic areas are recorded on the basis of intercompany prices established by the Company.

(15) Supplemental Cash Flow Disclosures

In the first quarter of 2004, the Company made a strategic decision to further focus its marketing and product support resources on its core competencies and reorient its operating infrastructure towards sustained profitability. As a result, the Company sold its Noah chiller product line to an unrelated third party for \$797,000 in cash and a \$1.9 million note receivable due March 31, 2009. The note bears interest at 5.0%, payable annually on March 31. The sale included property and equipment with a book value of approximately \$300,000, inventory of approximately \$1.0 million, goodwill and intangible assets net of

F-60

Table of Contents

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS (UNAUDITED) (Continued)

accumulated amortization of approximately \$900,000, demonstration and customer service equipment of approximately \$140,000, and estimated warranty obligations of approximately \$140,000. The Company recognized a gain on the sale of \$404,000, which has been recorded as other income and expense in the accompanying condensed consolidated financial statements.

(16) Subsequent Events

On August 3, 2005, the Company announced its plan to offer and sell 10 million shares of its common stock in an underwritten public offering. The Company intends to use a portion of the net proceeds to redeem in full the 5.25% convertible subordinated notes with a principal balance of \$66.2 million outstanding.

On July 6, 2005, the Company entered into an amendment to its line of credit agreement, increasing the revolving line of credit to \$40 million, extending the maturity date to July 2006, and amending other terms, including terms related to non-usage fees and financial covenants. No amount is currently outstanding under the line of credit. Any advances under the line of credit will bear interest at the prime rate (6.25% at August 5, 2005) minus 1%. If the Company were to draw on this line of credit, it would be subject to covenants that provide certain restrictions related to working capital, net worth, acquisitions and payment and declaration of dividends.

F-61

Table of Contents

PROSPECTUS

Advanced Energy Industries, Inc.
\$250,000,000
Common Stock
Debt Securities

This prospectus relates to common stock and debt securities that we may sell from time to time, in one or more offerings, for aggregate proceeds of up to \$250,000,000. We may offer the securities in one or more series, in amounts, at prices and on terms determined at the time of offering. We will provide specific terms of the securities we actually offer for sale in supplements to this prospectus.

You should read this prospectus, the documents incorporated by reference and the applicable prospectus supplement carefully before you invest. This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.

Our common stock is listed on the Nasdaq National Market under the symbol AEIS. The closing price of our common stock on the Nasdaq National Market was \$29.74 per share on November 12, 2003. The debt securities are not currently publicly traded.

We may sell the securities directly to you, through agents we select, through underwriters we select or through a combination of these methods. If we use agents, underwriters or dealers to sell the securities, we will name them and describe their compensation in a prospectus supplement. The net proceeds we expect to receive from these sales will also be included in a prospectus supplement.

Investing in our securities involves a high degree of risk. See Risk Factors on page 3.

Neither the Securities and Exchange Commission nor state securities regulators have approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is November 14, 2003

Table of Contents

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	1
<u>About Advanced Energy Industries, Inc.</u>	1
<u>Risk Factors</u>	3
<u>Special Note Regarding Forward-Looking Statements</u>	3
<u>Use of Proceeds</u>	4
<u>Ratio of Earnings to Fixed Charges</u>	4
<u>Description of Capital Stock</u>	5
<u>Description of Debt Securities</u>	6
<u>Plan of Distribution</u>	12
<u>Legal Matters</u>	14
<u>Experts</u>	14
<u>Where You Can Find More Information</u>	14
<u>Incorporation by Reference</u>	15

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission (SEC) using a shelf registration process. Under the shelf process, we may sell any combination of the securities described in this prospectus, in one or more offerings, for aggregate proceeds of up to \$250,000,000. This prospectus provides you with a general description of the securities we may offer. Each time we offer securities using this prospectus, we will provide a prospectus supplement that will contain specific information about the securities being offered and the terms of that offering. The prospectus supplement may also add, update or change information contained in this prospectus. You should read this prospectus, any prospectus supplement and the information incorporated by reference in this prospectus before making an investment decision. See [Where You Can Find More Information](#) for more information.

You should rely only on the information contained or incorporated by reference in this prospectus or the applicable prospectus supplement. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. You should assume that the information contained in this prospectus is accurate only as of the date on the front cover of this prospectus.

Unless the context otherwise requires, in this prospectus, [Advanced Energy](#), the Company, we, us and our [re](#) Advanced Energy Industries, Inc. and its subsidiaries.

ABOUT ADVANCED ENERGY INDUSTRIES, INC.

We design, manufacture and support a group of key components and subsystems for vacuum process systems. Our primary products are complex power conversion and control systems. Our products also control the flow of gasses into the process chamber and provide thermal control and sensing within the chamber.

Our direct current and radio frequency power systems refine, modify and control the raw electrical power from a utility and convert it into power that is uniform and predictable. This allows manufacturing equipment to produce, deposit or etch very thin films at an even thickness on a mass scale.

Our digital, pressure-based, thermal-based and liquid mass flow controllers and liquid vapor delivery systems control the flow of gasses, liquid vapors and high-purity liquids for semiconductor, flat panel display and data storage applications.

Our customers use our products in plasma-based thin-film processing equipment that is essential to the manufacture of:

- semiconductors;
- compact disks, DVDs and other digital storage media;
- flat-panel computer and television screens and LCD units;
- coatings for architectural glass and optics; and
- industrial laser and medical applications.

We sell spare parts and repair services worldwide through our customer service and technical support organization.

We also manufacture a power supply used in advanced technology computer workstations.

We market and sell our products primarily to large, original equipment manufacturers (OEMs) of semiconductor, flat panel display, data storage and other industrial thin-film manufacturing equipment. We

Table of Contents

have sold our products worldwide to more than 100 OEMs and directly to more than 500 end users. Our principal customers include:

Applied Materials, Inc.
Axcelis Technologies, Inc.
Guardian Industries Corp.
Lam Research Corporation
Novellus Systems, Inc.
Singulus Technologies AG
Tokyo Electron Limited
ULVAC Technologies, Inc.
The Unaxis Corporation

Sales to customers in the semiconductor capital equipment industry comprised 58% of our sales in the nine-month period ended September 30, 2003, 71% of our sales in the nine-month period ended September 30, 2002, 62% for the year ended December 31, 2002 and 59% for the year ended December 31, 2001. We sell our products primarily through direct sales personnel to customers in the United States, Europe and Asia, and through distributors in various regions outside the United States. International sales represented 53% of our sales in the nine-month period ended September 30, 2003, 37% of our sales in the nine-month period ended September 30, 2002, 40% in the year ended December 31, 2002 and 36% in the year ended December 31, 2001, although many of our products sold domestically are placed on systems shipped overseas by our customers.

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. Our website address is www.advanced-energy.com. The information contained on our website is not a prospectus and does not constitute part of this prospectus.

Table of Contents

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each type of securities we offer will contain a discussion of the risks applicable to an investment in Advanced Energy and to the particular types of securities that we are offering under that prospectus supplement. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the caption Risk Factors in the prospectus supplement, together with all of the other information contained or incorporated by reference in the prospectus supplement or contained or incorporated by reference in this prospectus.

SPECIAL NOTE ABOUT FORWARD-LOOKING STATEMENTS

This prospectus, the prospectus supplements and the documents incorporated by reference in this prospectus include forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Statements that are other than historical information are forward-looking statements. For example, financial projections and other statements relating to our beliefs, expectations or plans are forward-looking statements, as are statements that certain actions, conditions or circumstances will continue. Forward-looking statements involve risks and uncertainties, which are difficult to predict and many of which are beyond our control. As a result, our actual results may differ materially from the results discussed in the forward-looking statements.

Factors that could cause or contribute to such differences or prove any forward-looking statements, by hindsight, to be overly optimistic or unachievable, include the following:

our ability to successfully implement our cost reduction measures, including the transition of our supply base to Tier 1 Asian suppliers and the successful development of our China-based manufacturing facility;

our customers may not accept products manufactured at our Chinese facility;

our customers have strict copy exact requirements which may delay or prevent acceptance of lower cost components from Tier 1 Asian suppliers;

we may not be able to attract and retain key personnel in our Chinese facility;

we may incur significant costs to test and repair products manufactured in our China facility to mitigate the risk of shipping lower quality products to our customers;

the Chinese government may allow the yuan to float against the US dollar, which could significantly increase our operating costs;

disruption of our US employee base;

changes in economic conditions in the semiconductor and semiconductor capital equipment industries and other industries in which our customers operate;

declines in macroeconomic conditions;

the timing and nature of orders placed by our customers;

the introduction and customer acceptance of new products by us or our competitors;

changes in customers inventory management practices;

customer cancellations of previously placed orders and shipment delays;

costs incurred by responding to specific feature requests by customers;

pricing competition from our competitors;

cost reduction programs initiated by semiconductor manufacturers and semiconductor capital equipment manufacturers, which negatively impact our average selling price;

3

Table of Contents

component shortages or allocations or other factors that change our levels of inventory or substantially increase our spending on inventory or result in manufacturing delays;

potential litigation especially regarding intellectual property;

our ability to attract and retain key personnel; and

currency exchange rate fluctuations between the several functional currencies in foreign locations in which we have operations.

All forward-looking statements made or incorporated by reference in this prospectus and in any accompanying prospectus supplement are qualified by these cautionary statements. Forward-looking statements are made only as of the date of this prospectus or the related prospectus supplement, as applicable, and we do not undertake any obligation, other than as may be required by law, to update or revise any forward-looking statements to reflect changes in assumptions, the occurrence of unanticipated events or changes in future operating results over time.

USE OF PROCEEDS

Unless we specify otherwise in a prospectus supplement, we intend to use the proceeds from the sales of these securities to provide funds for general corporate purposes, including the repayment or refinancing of existing indebtedness, acquisitions, investments, expansion of production capacity and capital expenditures. We may also invest the net proceeds temporarily in short-term securities until we use them for their stated purpose. We will provide in each prospectus supplement specific information about how we intend to use the net proceeds from the offering described in that prospectus supplement.

RATIO OF EARNINGS TO FIXED CHARGES

The following table sets forth our ratio of earnings to fixed charges for the periods indicated.

	For the Nine Months Ended September 30,	For the Years Ended December 31,				
	2003	2002(2)	2001	2000(2)	1999	1998
Ratio of earnings to fixed charges(1)	N/A	N/A	N/A	14.25x	19.64x	N/A

(1) The ratio of earnings to fixed charges is calculated by dividing our earnings, as described below, by our fixed charges, as described below. For the purposes of this ratio, we calculate earnings as our pretax income from continuing operations before fixed charges; less minority interests in income of subsidiaries (unless the subsidiary has fixed charges), minority interests in losses of subsidiaries and income or loss from equity investees. We calculate fixed charges by adding (a) our interest expense, (b) the amount of amortization of deferred debt issuance cost and (c) the portion of rental expense under our operating leases that we have deemed to be representative of the interest factor for these leases. Our earnings, as defined, were insufficient to cover our fixed charges by \$14,547,000 for the year ended December 31, 1998; \$48,820,000 for the year ended December 31, 2001; \$63,692,000 for the year ended December 31, 2002; and \$30,802,000 for the nine-month period ended September 30, 2003.

(2) The calculation of our ratio of earnings to fixed charges and deficit of earnings to cover fixed charges in 2000 and 2002 has been restated to retroactively reclassify our gain on extinguishment of debt from an extraordinary item

to an operating item in accordance with Statement of Financial Accounting Standards No. 145 rescission of FASB Statements No. 4, 44, and 64, Amendment of FASB Statement No. 13, and Technical Corrections.

As of the date of this prospectus, we have no preferred stock outstanding. Accordingly, no ratio of earnings to fixed charges and preferred dividends is presented in this prospectus.

Table of Contents

DESCRIPTION OF CAPITAL STOCK

We are authorized to issue 70,000,000 shares of common stock, \$0.001 par value, and 1,000,000 shares of preferred stock, \$0.001 par value. As of September 30, 2003, 32,337,127 shares of common stock were outstanding, 7,395,863 shares were reserved for issuance under our employee stock purchase plan and stock option plans, and 5,410,689 shares were reserved for issuance on conversion of our convertible notes. No shares of preferred stock are currently outstanding.

Common Stock

The following description of our common stock, together with the additional information we include in an applicable prospectus supplement, sets forth the material terms of the common stock that we may offer under this prospectus. You should read the prospectus supplement relating to an offering of common stock, or of securities convertible, exchangeable or exercisable for common stock, for the terms of the offering, including:

the number of shares of common stock offered,

the initial offering price and

market prices and dividend information.

For the complete terms of our common stock, please refer to our restated Certificate of Incorporation, as amended, and bylaws, both of which are filed as exhibits to the registration statement that includes this prospectus. The General Corporation Law of the State of Delaware, as amended, also affects the terms of our common stock.

The holders of common stock are entitled to one vote for each share held of record on all matters submitted to a vote of stockholders. Approval of a matter submitted to the stockholders generally requires the affirmative vote of a majority of the shares being voted on that matter. The General Corporation Law of the State of Delaware imposes a greater approval requirement on certain matters that may be submitted to stockholders, such as business combinations or the sale of all or substantially all of our assets. Amendments to our restated Certificate of Incorporation relating to the personal liability of our directors or relating to the requirements applicable to amending our restated Certificate of Incorporation require the approval of the holders of at least 66²/₃% of the then outstanding voting stock. Our bylaws may be amended only with the approval of a majority of our board of directors or the holders of at least 66²/₃% of the then outstanding voting stock.

Subject to preferences that may be applicable to any outstanding shares of preferred stock that may be issued, the holders of common stock are entitled to receive ratably any dividends that may be declared from time to time by the board of directors out of funds legally available for the payment of dividends. The holders of our common stock are entitled to share ratably in all assets remaining after payment of liabilities and liquidation preferences of any outstanding shares of preferred stock in the event of our liquidation, dissolution or winding up. Holders of common stock have no preemptive rights or rights to convert their common stock into any other securities. There are no redemption or sinking fund provisions applicable to common stock. All outstanding shares of common stock are fully paid and non-assessable.

Our common stock is quoted on the Nasdaq National Market under the symbol AEIS. The transfer agent and registrar for our common stock is American Stock Transfer & Trust Company.

Preferred Stock

Our board of directors has the authority, without further action by the stockholders, to issue up to 1,000,000 shares of preferred stock, in one or more series, and to fix the rights, privileges and preferences of such shares of preferred stock. The rights, privileges and preferences of any series of preferred stock likely will be greater than the rights, privileges and preferences of the common stock. The issuance of preferred stock could adversely affect the voting power of the common stock and reduce the likelihood that the common stockholders will receive dividends or payments upon liquidation of our company. An issuance

Table of Contents

of preferred stock also may have the effect of delaying, deterring or preventing a change in control of the company. We currently have no plans to issue any shares of preferred stock.

Anti-takeover Effects of Section 203 of the Delaware General Corporation Law

We are subject to Section 203 of the Delaware General Corporation Law, an anti-takeover law. In general, Section 203 prohibits a Delaware corporation from engaging in any business combination with an interested stockholder for a period of three years following the date that the stockholder became an interested stockholder, subject to specified exceptions.

Section 203 defines an interested stockholder as any entity or person who:

beneficially owns 15% or more of the outstanding voting stock of the corporation;

beneficially owned 15% or more of the outstanding voting stock of the corporation at anytime within the prior three years; or

is affiliated with, controls or is controlled by a person or entity having either of the stockholders described above. Section 203 does not prohibit a business combination with an interested stockholder, if:

prior to that date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;

upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the voting stock owned by the interested stockholder) those shares owned by persons who are directors and also officers and by excluding employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or

on or subsequent to that date, the business combination is approved by the board of directors of the corporation and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66²/₃% of the outstanding voting stock that is not owned by the interested stockholder.

Section 203 defines a business combination to include the following:

any merger or consolidation involving the corporation and the interested stockholder;

any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;

subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;

any transaction involving the corporation that has the effect of increasing the proportionate share of the stock of any class or series of the corporation beneficially owned by the interested stockholder; or

the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits provided by or through the corporation.

DESCRIPTION OF DEBT SECURITIES

We might use this prospectus to offer one or more series of debt securities. The debt securities we offer might constitute senior debt or subordinated debt, they might be secured or unsecured and they

Table of Contents

might be convertible into common stock or other securities. The particular terms of any series of debt securities we offer, which might differ from the general terms set forth below, will be described in a prospectus supplement relating to that series.

We expect that any debt securities we offer will be issued under an indenture, the form of which is filed as an exhibit to the registration statement that includes this prospectus. The indenture actually used to issue any of our debt securities might contain terms different from or in addition to those set forth in the form of indenture. This description of our debt securities, as supplemented by the description in the applicable prospectus supplement, is only a summary of the material terms of our debt securities. You should read the applicable indenture carefully because it, and not this description, will determine your rights as a holder of the debt securities.

Information You Will Find in the Prospectus Supplement

The prospectus supplement will describe the debt securities and the price or prices at which we will offer the debt securities. The description will include, to the extent applicable:

the title and form of the debt securities;

any limit on the aggregate principal amount of the debt securities or the series of which they are a part;

the date or dates on which we must repay the principal;

the rate or rates at which the debt securities will bear interest, if any; the date or dates from which interest will accrue; and the dates on which we must pay interest;

the duration and terms of any right to extend interest payment periods;

whether the debt securities are secured or guaranteed and, if so, the terms on which they will be secured or guaranteed;

whether the debt securities are convertible into, or exchangeable for, shares of our common stock or other securities and, if so, the terms on which the debt securities may be converted or exchanged;

whether the debt securities will constitute subordinated debt and, if so, the subordination provisions that will apply;

the manner in which, and the place or places where, we will pay the principal and any premium or interest on the debt securities;

the denominations in which we may issue the debt securities;

whether we may redeem the debt securities and, if so, the terms and conditions under which we may do so;

any obligation we may have to redeem or purchase any debt securities, and the terms and conditions on which we must do so;

the principal amount of the debt securities that we will pay upon declaration of acceleration of their maturity;

the amount that will be deemed to be the principal amount for any purpose, including the principal amount that will be due and payable upon any maturity or that will be deemed to be outstanding as of any date;

whether the debt securities are defeasible and the terms of any such defeasance;

the identity of any trustee, authenticating or paying agent, transfer agent or registrar of the debt securities.

7

Table of Contents

We may sell the debt securities at a substantial discount below their stated principal amount. We will describe the U.S. Federal income tax considerations, if any, applicable to debt securities sold at an original issue discount in the prospectus supplement. An original issue discount security is any debt security sold for less than its face value and which provides that the holder cannot receive the full face value if maturity is accelerated. The prospectus supplement relating to any original issue discount securities will describe the particular provisions relating to acceleration of the maturity upon the occurrence of an event of default.

Subordination of Debt Securities

Unless the prospectus supplement indicates otherwise, the debt securities we issue under this prospectus will be subordinate and junior in right of payment to our senior indebtedness. Senior indebtedness will include our obligations, as well as obligations of others that we guarantee or assume, for borrowed money or evidenced by bonds, debentures, notes or other similar instruments. Our senior indebtedness currently includes two series of convertible notes. As of September 30, 2003, the aggregate principal amount of indebtedness evidenced by our convertible notes was \$187,718,000. If we use this prospectus to offer subordinated debt securities, the applicable prospectus supplement will provide information as to our senior indebtedness as of a date no earlier than the end of the preceding fiscal quarter.

Our subsidiaries will have no direct obligation to pay amounts due on the debt securities, unless the prospectus supplement indicates otherwise. Any debt securities we issue under this prospectus, therefore, will be effectively subordinated to all existing and future indebtedness and other liabilities of our subsidiaries.

The holders of senior indebtedness generally are entitled to receive payment of the full amount unpaid on such senior indebtedness before the holders of any subordinated debt securities are entitled to receive any payment on account of the principal or interest on the indebtedness evidenced by the subordinated debt securities upon the occurrence of certain events, including:

any insolvency, bankruptcy, receivership, liquidation, dissolution, reorganization or other similar proceeding which concern us or a substantial part of our property;

any default on the payment of principal, premium, if any, or interest on or other monetary amounts due and payable on any senior indebtedness;

any other default on senior indebtedness occurs and the maturity of such senior indebtedness is accelerated in accordance with its terms, and unless either (a) such default shall have been cured or waived and any such acceleration shall have been rescinded or (b) such senior indebtedness shall have been paid in full; and

the principal of, and accrued interest on any series of the subordinated debt securities having been declared due and payable upon an event of default contained in the prospectus supplement.

Interest Rate

Debt securities that bear interest will do so at a fixed rate or a floating rate. We may sell, at a discount below the stated principal amount, any debt securities which bear no interest or which bear interest at a rate that at the time of issuance is below the prevailing market rate. The relevant prospectus supplement will describe the special U.S.

Federal income tax considerations applicable to:

any discounted debt securities; and

any debt securities issued at par which are treated as having been issued at a discount for U.S. Federal income tax purposes.

Table of Contents

Global Securities

The debt securities may be represented, in whole or in part, by one or more global securities that will have an aggregate principal amount equal to that of all debt securities of that series. Each global security will be registered in the name of a depository identified in the prospectus supplement. We will deposit the global security with the depository or a custodian, and the global security will bear a legend regarding the restrictions on exchanges and registration of transfer.

No global security may be exchanged in whole or in part for debt securities registered, and no transfer of a global security in whole or in part may be registered, in the name of any person other than the depository or any nominee or successor of the depository unless:

the depository is unwilling or unable to continue as depository; or

the depository is no longer in good standing under the Exchange Act or other applicable statute or regulation.

The depository will determine how all securities issued in exchange for a global security will be registered.

As long as the depository or its nominee is the registered holder of a global security, we will consider the depository or the nominee to be the sole owner and holder of the global security and the underlying debt securities. Except as stated above, owners of beneficial interests in a global security will not be entitled to have the global security or any debt security registered in their names, will not receive physical delivery of certificated debt securities and will not be considered to be the owners or holders of the global security or underlying debt securities. We will make all payment of principal, premium and interest on a global security to the depository or its nominee. The laws of some jurisdictions require that some purchasers of securities take physical delivery of such securities in definitive form. These laws may prevent you from transferring your beneficial interests in a global security.

Only institutions that have accounts with the depository or its nominee and persons that hold beneficial interests through the depository or its nominee may own beneficial interests in a global security. The depository will credit, on its book-entry registration and transfer system, the respective principal amounts of debt securities represented by the global security to the accounts of its participants. Ownership of beneficial interests in a global security will be shown only on, and the transfer of those ownership interests will be effected only through, records maintained by the depository or any such participant.

The policies and procedures of the depository may govern payments, transfers, exchanges and other matters relating to beneficial interests in a global security. We and the trustee will assume no responsibility or liability for any aspect of the depository's or any participant's records relating to, or for payments made on account of, beneficial interests in a global security.

Payment and Paying Agents

Unless the prospectus supplement indicates otherwise, we will pay principal and any premium or interest on a debt security to the person in whose name the debt security is registered at the close of business on the regular record date for such interest.

Unless the prospectus supplement indicates otherwise, we will pay principal and any premium or interest on the debt securities at the office of our designated paying agent. Unless the prospectus supplement indicates otherwise, the corporate trust office of the trustee will be the paying agent for the debt securities.

Any other paying agents we designate for the debt securities of a particular series will be named in the prospectus supplement. We may designate additional paying agents, rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, but we must maintain a paying agent in each place of payment for the debt securities.

Table of Contents

The paying agent will return to us all money we pay to it for the payment of the principal, premium or interest on any debt security that remains unclaimed for a specified period. Thereafter, the holder may look only to us for payment, as an unsecured general creditor.

Consolidation, Merger and Sale of Assets

We may not consolidate with or merge into any other entity or convey, transfer, sell or lease our properties and assets substantially as an entirety to any entity other than to one or more of our subsidiaries, and we may not permit any entity to consolidate with or merge into us or convey, transfer, sell or lease the entity's properties and assets substantially as an entirety to us unless:

the entity formed by the consolidation or into or with which we are merged or the entity to which our properties and assets are so conveyed, transferred, sold or leased, shall be a corporation, limited liability company, partnership or trust organized and existing under the laws of the United States, any State within the United States or the District of Columbia and, if we are not the surviving entity, the surviving entity assumes the payment of the principal of, premium, if any, and interest on the notes and the performance of our other covenants under the indenture;

immediately after giving effect to the transaction, no event of default, and no event that, after notice or lapse of time or both, would become an event of default, will have occurred and be continuing; and

we shall have delivered to the trustee an officers' certificate and an opinion of counsel, each stating that such consolidation, merger or transfer and such supplemental indenture (if any) comply with the indenture.

Events of Default

Unless otherwise indicated in the applicable prospectus supplement, the following will be events of default under the indenture with respect to each series of debt securities issued under the indenture:

failure to pay when due any interest on any debt security of that series, continued for 30 days;

failure to pay when due principal of, or premium, if any, on, any debt security of that series;

default in the payment of any sinking fund installment with respect to any debt security of that series when due and payable;

failure to comply with the restrictive covenant prohibiting us from engaging in certain consolidations, mergers, or transfers of all or substantially all of our assets;

failure to perform any other covenant or agreement of ours under the indenture or the supplemental indenture with respect to that series or the debt securities of that series, continued for 60 days after written notice to us by the trustee or holders of at least 25% in aggregate principal amount of the outstanding debt securities of the series to which the covenant or agreement relates;

certain events of bankruptcy, insolvency or similar proceedings affecting us; and

any other event of default specified in any supplemental indenture under which such series of debt securities are issued.

Except as to certain events of bankruptcy, insolvency or similar proceedings affecting us and except as provided in the applicable prospectus supplement, if any event of default shall occur and be continuing with respect to any series of debt securities under the indenture, either the trustee or the holders of at least 25% in aggregate principal amount of outstanding debt securities of such series may accelerate the maturity of all debt securities of such series. Upon certain events of bankruptcy, insolvency or similar proceedings affecting us, the principal, premium, if any, and interest on all debt securities of each series shall be immediately due and payable.

Table of Contents

After any such acceleration, but before a judgment or decree based on acceleration, the holders of a majority in aggregate principal amount of each affected series of debt securities may waive all defaults with respect to such series and rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal, have been cured, waived or otherwise remedied.

No holder of any debt securities will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture, unless:

the holder has previously given the trustee written notice of a continuing event of default;

the holders of a specified percentage in aggregate principal amount of the outstanding securities of that series have made a written request upon the trustee, and have offered reasonable indemnity to the trustee, to institute the proceeding;

the trustee has failed to institute the proceeding for a specified period of time after its receipt of the notification; and

the trustee has not received a direction inconsistent with the request within a specified number of days.

However, these limitations do not apply to a suit instituted by a holder of a debt security for enforcement of payment of the principal of and premium, if any, or interest on such debt security on or after the due dates expressed in the debt security.

Modification and Waiver

We and the trustee may change an indenture without the consent of any holders with respect to specific matters, including:

to fix any ambiguity, defect or inconsistency in the indenture; and

to change anything that does not materially adversely affect the interests of any holder of debt securities of any series.

In addition, under the indentures, the rights of holders of a series of notes may be changed by us and the trustee with the written consent of the holders of at least a majority in aggregate principal amount of the outstanding debt securities of each series that is affected. However, we and the trustee may only make the following changes with the consent of the holder of any outstanding debt securities affected:

change the fixed maturity of the principal of, or any installment of interest on, any debt securities;

reduce the principal amount of any debt securities or the rate of interest on any debt securities;

change the currency in which any debt securities are payable;

release any security interest that may have been granted with respect to such debt securities;

impair the right of the holders to conduct a proceeding for any remedy available to the trustee;

reduce the percentage in principal amount of any series of debt securities whose holders must consent to an amendment or supplemental indenture;

modify the ranking or priority of the debt securities;

reduce any premium payable upon the redemption of any debt securities or change the time at which any debt security may be redeemed; or

make any change that adversely affects the relative rights of holders of subordinated debt securities with respect to senior debt securities.

Except in certain limited circumstances, we may set any day as a record date for the purpose of determining the holders of outstanding debt securities of any series entitled to give or take any direction, notice, consent, waiver or other action under the indentures. In certain limited circumstances, the trustee

Table of Contents

may set a record date. To be effective, the action must be taken by holders of the requisite principal amount of such debt securities within a specified period following the record date.

Defeasance

To the extent stated in the prospectus supplement, we may elect to apply the provisions in the indentures relating to defeasance and discharge of indebtedness, or to defeasance of certain restrictive covenants, to the debt securities of any series. The indentures provide that, upon satisfaction of the requirements described below, we may terminate all of our obligations under the debt securities of any series and the applicable indenture, known as legal defeasance, other than our obligation:

to maintain a registrar and paying agents and hold moneys for payment in trust;

to register the transfer or exchange of the notes; and

to replace mutilated, destroyed, lost or stolen notes.

In addition, we may terminate our obligation to comply with any restrictive covenants under the debt securities of any series or the applicable indenture, known as covenant defeasance.

We may exercise our legal defeasance option even if we have previously exercised our covenant defeasance option. If we exercise either defeasance option, payment of the notes may not be accelerated because of the occurrence of events of default.

To exercise either defeasance option as to debt securities of any series, we must irrevocably deposit in trust with the trustee money and/or obligations backed by the full faith and credit of the United States that will provide money in an amount sufficient in the written opinion of a nationally recognized firm of independent public accountants to pay the principal of, premium, if any, and each installment of interest on the debt securities. We may only establish this trust if, among other things:

no event of default shall have occurred or be continuing;

in the case of legal defeasance, we have delivered to the trustee an opinion of counsel to the effect that we have received from, or there has been published by, the Internal Revenue Service a ruling or there has been a change in law, which in the opinion of our counsel, provides that holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred;

in the case of covenant defeasance, we have delivered to the trustee an opinion of counsel to the effect that the holders of the debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit, defeasance and discharge and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit, defeasance and discharge had not occurred; and

we satisfy other customary conditions precedent described in the applicable indenture.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, United States of America.

PLAN OF DISTRIBUTION

We may sell the securities described in this prospectus directly to purchasers, to or through underwriters, through dealers or agents, or through a combination of these methods. The prospectus supplement with respect to the securities being offered will set forth the terms of the offering of those securities, including the names of the underwriters, dealers or agents, if any, the purchase price, the net

Table of Contents

proceeds to us, any underwriting discounts and other items constituting underwriters' compensation, the initial public offering price, any discounts or concessions allowed or reallocated or paid to dealers and any securities exchanges on which such securities may be listed.

If underwriters are used in an offering, we will execute an underwriting agreement with such underwriters and will specify the name of each underwriter and the terms of the transaction (including any underwriting discounts and other terms constituting compensation of the underwriters and any dealers) in a prospectus supplement. The securities may be offered to the public either through underwriting syndicates represented by managing underwriters or directly by one or more investment banking firms or others, as designated. If an underwriting syndicate is used, the managing underwriter(s) will be specified on the cover of the prospectus supplement. If underwriters are used in the sale, the offered securities will be acquired by the underwriters for their own accounts and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. Any public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time. Unless otherwise set forth in the prospectus supplement, the obligations of the underwriters to purchase the offered securities will be subject to conditions precedent and the underwriters will be obligated to purchase all of the offered securities if any are purchased.

If dealers are used in an offering, we will sell the securities to the dealers as principals. The dealers then may resell the securities to the public at varying prices which they determine at the time of resale. The names of the dealers and the terms of the transaction will be specified in a prospectus supplement.

The securities may be sold directly by us or through agents we designate from time to time at a fixed price or prices, which may be changed, or at varying prices determined at the time of sale. If agents are used in an offering, the names of the agents and the terms of the agency will be specified in a prospectus supplement. Unless otherwise indicated in a prospectus supplement, the agents will act on a best-efforts basis for the period of their appointment.

Dealers and agents named in a prospectus supplement may be deemed to be underwriters (within the meaning of the Securities Act) of the securities described therein. In addition, we may sell the securities directly to institutional investors or others who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resales thereof.

Underwriters, dealers and agents may be entitled to indemnification by us against specific civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments which the underwriters or agents may be required to make in respect thereof, under underwriting or other agreements. The terms of any indemnification provisions will be set forth in a prospectus supplement.

If so indicated in a prospectus supplement, we will authorize underwriters or other persons acting as our agents to solicit offers by institutional investors to purchase securities pursuant to contracts providing for payment and delivery on a future date. We may enter contracts with commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and other institutional investors. The obligations of any institutional investor will be subject to the condition that its purchase of the offered securities will not be illegal at the time of delivery. The underwriters and other agents will not be responsible for the validity or performance of such contracts.

Each series of securities will be a new issue of securities and will have no established trading market, other than our common stock. Any common stock sold pursuant to a prospectus supplement will be eligible for quotation and trading on the Nasdaq National Market, subject to official notice of issuance. Any underwriters to whom securities are sold by us for public offering and sale may make a market in the securities, but such underwriters will not be obligated to do so and may discontinue any market making at any time without notice. The securities, other than the common stock, may or may not be listed on a national securities exchange or eligible for quotation and trading on the Nasdaq National Market.

Table of Contents

LEGAL MATTERS

The validity of the securities offered hereby will be passed upon for us by Hogan & Hartson L.L.P., Los Angeles, California.

EXPERTS

The consolidated financial statements and schedule of Advanced Energy Industries, Inc. as of December 31, 2002 and for the year then ended, have been incorporated by reference herein in reliance upon the report of KPMG LLP, independent accountants, incorporated by reference herein, and upon the authority of said firm as experts in accounting and auditing.

The consolidated financial statements of Advanced Energy as of December 31, 2001 and for each of the two years in the period ended December 31, 2001 appearing in Advanced Energy Industries, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2002 have been audited by Arthur Andersen LLP, independent auditors, as set forth in their report thereon, a copy of which is included therein and incorporated herein by reference. The report of Arthur Andersen LLP has not been reissued because Arthur Andersen LLP has ceased operations. These consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

Because we have not been able to obtain, after reasonable efforts, the written consent of Arthur Andersen LLP to our naming it in this prospectus as having certified our financial statements for the two years ended December 31, 2001, as required by Section 7 of the Securities Act, we have not filed their consent in reliance on Rule 437a promulgated under the Securities Act. Consequently, your ability to assert claims against Arthur Andersen LLP will be limited. In particular, because of this lack of consent, you will not be able to sue Arthur Andersen LLP under Section 11(a) of the Securities Act for any untrue statement of a material fact contained in the financial statements audited by Arthur Andersen LLP or any omissions to state a material fact required to be stated in those financial statements. Therefore, your right of recovery under that section will be limited.

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy these reports, proxy statements and other information filed by us at the SEC's Public Reference Room at 450 Fifth Street, N.W., Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the Public Reference Room. Our SEC filings are also available, free of charge, at the SEC's web site at <http://www.sec.gov> and at our web site at <http://www.advanced-energy.com>. In addition, you can read and copy our SEC filings at the office of the National Association of Securities Dealers, Inc. at 1735 K Street, Washington, D.C. 20006.

We have filed with the SEC a registration statement on Form S-3 under the Securities Act in connection with this prospectus. This prospectus does not contain all of the information set forth in the registration statement. We have omitted certain parts of the registration statement in accordance with the rules and regulations of the SEC. For further information you should refer to the registration statement. Statements contained in this prospectus as to the contents of any contract or other document are not necessarily complete and, in each instance, you should refer to the copy of such contract or document filed as an exhibit to or incorporated by reference in the registration statement. Each statement as to the contents of such contract or document is qualified in all respects by such reference. You may obtain copies of the registration statement from the SEC's principal office in Washington, D.C. upon payment of the fee prescribed by the SEC, or you may examine the registration statements without charge at the offices of the SEC or via the SEC's website as described above.

Table of Contents

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference information that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is an important part of this prospectus, and information that we file later with the SEC will automatically supercede information in this prospectus. We incorporate by reference in this prospectus the documents listed below and any future filings we make with the SEC under Section 13(a), 13(c), 14 or 15(d) of the Exchange Act (other than Current Reports on Form 8-K furnishing information under Item 9 or 12 of Form 8-K, unless otherwise indicated therein) until the offering of our securities under this registration statement is completed or withdrawn:

our Annual report on Form 10-K for the year ended December 31, 2002, including those portions incorporated by reference therein of our definitive proxy material on Schedule 14A as filed with the SEC on April 11, 2003;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2003, June 30, 2003 and September 30, 2003;

our Current Report on Form 8-K filed on May 16, 2003; and

the description of our common stock contained in our registration statement on Form 8-A, filed on October 12, 1995, including any amendment or reports filed for the purpose of updating such description.

Our current reports on Form 8-K dated April 23, 2003, July 24, 2003 and October 16, 2003, which furnished information relating to our quarterly earnings, are not incorporated by reference in this prospectus.

We will provide a copy of the documents we incorporate by reference at no cost to any person who receives this prospectus. To request a copy of any or all of these documents, excluding any exhibits to these documents unless the exhibit is specifically incorporated by reference in such document, you should write or call us at:

Advanced Energy Industries, Inc.
1625 Sharp Point Drive
Fort Collins, CO 80525
Attention: Investor Relations
970-221-4670

Documents incorporated by reference in this prospectus, may also be found on our website at www.advanced-energy.com. Information contained on our website is not a prospectus and does not constitute part of this prospectus.

Table of Contents

**10,000,000 Shares
Advanced Energy Industries, Inc.
Common Stock**

**PROSPECTUS SUPPLEMENT
AUGUST 11, 2005**

**Citigroup
Lehman Brothers
Adams Harkness
Needham & Company, LLC**