

ADVANCED ENERGY INDUSTRIES INC

FORM 10-K405

(Annual Report (Regulation S-K, item 405))

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Address	1625 SHARP POINT DR FT COLLINS, Colorado 80525
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CIK	0000927003
Industry	Electronic Instr. & Controls
Sector	Technology
Fiscal Year	12/31

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(MARK ONE)

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

For the fiscal year ended December 31, 1996.

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15 (d) OF THE SECURITIES EXCHANGE ACT OF 1934 (NO FEE REQUIRED).

For the transition period from _____ to _____.

Commission file number: 0-26966

ADVANCED ENERGY INDUSTRIES, INC.

(Exact name of registrant as specified in its charter)

DELAWARE
(State or other jurisdiction of incorporation
or organization)

84-0846841
(I.R.S. Employer
Identification No.)

1625 SHARP POINT DRIVE, FORT COLLINS, CO
(Address of principal executive offices)

80525
(Zip Code)

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

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

None

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

Common Stock, \$0.001 par value

(Title of Class)

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

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

As of January 31, 1997, there were 21,268,708 shares of the Registrant's Common Stock outstanding and the aggregate market value of such stock held by non-affiliates of the Registrant was \$42,550,560 (based on the closing price on the NASDAQ Stock Market).

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the annual shareholders report for the year ended December 31, 1996, are incorporated by reference into Parts I and II of this Form 10-K.

Portions of the Company's definitive proxy statement for the annual shareholders meeting to be held May 15, 1997, are incorporated by reference into Part III of this Form 10-K.

ADVANCED ENERGY INDUSTRIES, INC.
FORM 10-K

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PART I

ITEM 1. BUSINESS

GENERAL

Advanced Energy is a leading supplier of power conversion and control systems incorporated in plasma-based thin film production equipment. The Company's systems are key elements of semiconductor, data storage, flat panel display, and a range of other industrial manufacturing equipment that utilizes gaseous plasmas to deposit or etch thin film layers on materials or substrates such as silicon, glass and metals. The effectiveness of plasma-based production processes depends in large part on the quality of the electrical power used to ignite and manipulate the plasma. The Company's power conversion and control systems refine, modify and control the raw power from a utility and produce power which is uniform, predictable and precisely repeatable to permit the production of identical films of unvarying thickness on a mass scale. The Company's systems are used in an array of thin film processes such as physical vapor deposition, etch, chemical vapor deposition, plasma enhanced chemical vapor deposition and ion implantation, as well as a broad range of thin film applications such as the production of semiconductors, magnetic hard disks, CD-ROMs, audio and video discs, thin film heads, liquid crystal displays and optical, glass and automobile coatings. The Company's customers include Applied Materials, Lam Research, Balzers/Leybold, Materials Research, Multi-Arc and Ulvac.

In recent years, significant technological advances in thin film processes have enabled the manipulation of materials on the atomic and molecular level. Manufacturers can now both deposit and etch layers of materials that are less than one hundredth of a micron in thickness. By using modern thin film production processes, manufacturers are better able to control and alter the electrical, magnetic, optical and mechanical characteristics of materials. Thin film processes have been employed most extensively in the semiconductor industry, where multiple thin film layers of insulating or conductive material are deposited on a wafer or substrate. These processes are now used in a growing range of diverse industries. Thin film production was initially accomplished using either liquid chemical or thermal processes. Plasma-based process technology was developed to address the limitations of wet chemistry and thermal technologies in certain applications requiring thinner, more precise film, and to enable new applications.

The Company has achieved its market leadership position by providing systems which convert externally supplied power, operate over a wide range of power levels, control utility instabilities such as brownouts and surges created by raw utility power sources, control intense localized electrical discharges known as arcs and control system instabilities which arise from the use of exotic gases and inherently unstable electrode arrangements. All of the Company's products employ sophisticated switchmode technology that affords plasma-based systems a greater ability to prevent arcs, which can slow down the throughput of a plasma process and may even destroy the substrate or the

power conversion and control system. The Company believes the combination of its in-depth knowledge of plasma physics, its unique approach to product customization and its reusable engineering product design methodology have enabled it to develop the widest range of power conversion and control systems in the industry.

Since inception, the Company has sold over 58,000 power conversion and control systems. Approximately 60% of the Company's sales in 1995 and 61% in 1996 were to the semiconductor equipment industry. Advanced Energy sells its systems primarily through direct sales personnel to customers in the United States, Japan and Europe. The Company also sells through distributors in Japan, France, Italy, Israel, Korea, and Taiwan. International sales represented 29% and 24% of the Company's sales in 1995 and 1996, respectively.

DEVELOPMENT OF COMPANY BUSINESS

Advanced Energy was incorporated in Colorado in 1981 and reincorporated in Delaware in September 1995. Advanced Energy filed with the Securities and Exchange Commission (the "Commission") a registration statement on Form S-1 pursuant to the Securities Exchange Act of 1934, as amended, with respect to Advanced Energy's initial public offering of its common stock, \$0.001 par value ("Common Stock"). The registration statement was declared effective by the Commission in November 1995. As used in this Form 10-K, references to "Advanced Energy" refer to Advanced Energy Industries, Inc. and references to the "Company" refer to Advanced Energy and its consolidated subsidiaries. The Company's principal executive offices are located at 1625 Sharp Point Drive, Fort Collins, Colorado 80525, and its telephone number is (970) 221-4670.

PRODUCTS

The Company's use of switchmode power conversion and control technology has enabled it to develop a line of products which has permitted the development of new plasma processing applications. In 1982, the Company introduced its first low frequency switchmode power conversion and control system specifically designed for use in plasma processes. In 1983, the Company introduced its first DC system designed for use in PVD sputtering applications. This DC based system is a compact, cost-effective power solution, which greatly reduced stored energy, a major limitation in the use of PVD systems. In the early 1990's the Company introduced the first fully switchmode radio frequency (RF) power conversion and control systems for use in semiconductor etch applications. This product achieved significant design wins because of its smaller size and precise control attributes. The Company has recently introduced a family of accessories which provide major improvements in arc prevention and suppression. The Company is currently extending the power range of its systems to much higher power levels to enable it to supply products for emerging industrial applications. The Company's

products currently range in price from \$2,880 to \$80,000, with an average price of approximately \$10,000.

The following chart sets forth the Company's principal product lines and related basic information:

	PRODUCT PLATFORM	DESCRIPTION	POWER/CURRENT LEVEL	MAJOR PROCESS APPLICATIONS
DIRECT CURRENT PRODUCTS	MDX	Power control and conversion system	500W-80kW	PVD - Metal sputtering - Reactive sputtering
	MDX-II	Power control and conversion system	15kW-120kW	PVD - Metal sputtering - Reactive sputtering
	Pinnacle	Power control and conversion system	6kW-120kW	PVD - Metal sputtering - Reactive sputtering
	SPARC-LE	Arc management accessory	1kW-60kW	For use with MDX systems
LOW AND MID FREQUENCY PRODUCTS	PE	Low frequency power control and conversion system	1.25kW-30kW	CVD PVD - Reactive sputtering Surface modifications
	PD	Mid frequency power control and conversion system	1.25kW-3.5kW	CVD PVD - Reactive sputtering Surface modifications
RADIO FREQUENCY PRODUCTS	RFX	Power control and conversion system	600W	General R&D
	RFG	Power control and conversion system	600W-5.5kW	Etch CVD
	RFXII	Power control and conversion system	600W-5.5kW	Etch CVD
	ID	Ion-beam conversion and control system	500W-5kW	Ion-beam deposition Ion implantation Ion-beam etching/milling
	AZX	Tuner	100W-5kW	Impedance matching network
	RFZ	Probe	50W-5kW	Impedance measurement tool

DIRECT CURRENT PRODUCTS

THE MDX SERIES. The Company's MDX series of products was introduced in 1983. These products are most commonly used as DC power supplies for PVD sputtering where precise control, superior arc prevention and suppression and low stored energy characteristics are required. They are also used as bias supplies for RF sputtering, tool coating and some etching systems. The MDX series consists of six different product lines that provide a range of power levels from 500 W to 120 kW. The Company's second generation product, the MDX II, was introduced in 1991 to support higher power levels and to meet strict European regulatory requirements. A lower cost model in the MDX series, the MDX-L, was introduced in 1992.

THE PINNACLE SERIES. The Pinnacle series, introduced in 1995, is the most recent product line in the MDX series. Pinnacle was developed primarily for use in DC PVD sputtering processes and provides substantial improvements in arc prevention, arc suppression capability, reduced size, higher precision and expanded control capability.

SPARC-LE ACCESSORIES. The Company's SPARC-LE line of DC accessories, introduced in 1993, is designed both to reduce the number of arcs that occur in plasma-based processes and to reduce the arc energy if arcs do occur. The SPARC-LE accessories are especially effective in applications involving the deposition of insulative materials where the reaction between the plasma and target is likely to produce more severe arc conditions. The SPARC-LE accessories are most commonly used with the MDX product lines. The SPARC-LE arc prevention and suppression technology has been incorporated directly into the Pinnacle systems.

LOW AND MID-FREQUENCY PRODUCTS

THE PE AND PD SERIES. The PE low frequency power systems were introduced in 1982. The PE series systems are air cooled and primarily intended for use in certain PVD, CVD and industrial surface modification applications, including dual cathode sputtering and printed circuit board de-smearing. The PE series systems range in frequency from 25kHz to 100kHz. The low frequency PE systems and the PD series of mid-frequency power conversion and control systems, introduced in 1990, represented significant technological advancements by applying switchmode techniques to higher frequencies. The water-cooled PD systems are used primarily in semiconductor etch and CVD applications. The PD series range in frequency from 275kHz to 400kHz. Both the PE and PD series systems have single-stage power generation, and include systems that incorporate pulsed power technology.

RADIO FREQUENCY PRODUCTS

THE RF SERIES. The RFX system is a 13.56MHz, 600W, air-cooled platform introduced in 1985. This system is used primarily in research and development applications. The RFG and RFXII, introduced in 1991 and 1992, respectively, are water-cooled power conversion and control systems utilizing a new hybrid-based switchmode technology. The RFG and RFXII systems operate at frequencies ranging from 4MHz to 13.56MHz. These systems were the first entirely switchmode-based RF designs. The RF systems are most commonly used in semiconductor processes, including RF sputtering, plasma etching/deposition, and reactive ion etching applications. The RFXII is a compact system which incorporates new impedance matching technology. This technology eliminates certain previously required motors, gear trains, variable capacitors and inductors and servomechanism circuitry, which results in cost savings and improvements in reliability.

THE ID SERIES. The ID power conversion and control systems, introduced in 1981, were the first products designed by the Company. These systems were specifically designed to power broad beam ion-sources. ID series systems are composed of a coordinated set of multiple special purpose power supplies that are used for ion-beam deposition and sputtering, ion implantation and ion-beam etching and milling.

THE AZX SERIES. The AZX series tuners are RF matching networks designed as accessories to match the complex electrical characteristics of a plasma to the requirements of the Company's RF series of power conversion and control systems. AZX tuners, introduced in 1989, are also sold separately for incorporation into other vendor's power conversion and control systems. The AZX tuners typically operate at a 13.56MHz frequency range. The need for these tuner products is reduced with the advent of the Matchless technology designed into the RFXII system.

THE RFZ IMPEDANCE PROBE. The RF impedance probe, introduced in 1993, is used for measuring the RF properties of a plasma. The sensing technology incorporated in the RF impedance probe allows accurate, real-time measurement of power, voltage, current and impedance levels under actual powered process conditions.

MARKETS AND CUSTOMERS

MARKETS

Approximately 60% of the Company's sales in 1995 and 61% in 1996 were to the semiconductor equipment industry. Increasingly, the Company's power conversion and control systems are also being used in other markets, including flat panel display, data storage and various industrial applications. The following is a discussion of the major markets for the Company's systems:

SEMICONDUCTOR MANUFACTURING EQUIPMENT MARKET. The Company's products are sold primarily to semiconductor equipment manufacturers for incorporation into equipment used to make integrated circuits. The Company's products are currently employed in a variety of applications, including deposition, etch, ion implantation and megasonic cleaning. The precision control over plasma processes afforded by the use of the Company's power conversion and control systems allows its customers to manufacture semiconductor fabrication systems that produce integrated circuits with reduction feature size and increased speed and performance. The Company anticipates that the semiconductor industry will continue to be a substantial part of its business for the foreseeable future.

FLAT PANEL DISPLAY MANUFACTURING EQUIPMENT MARKET. The Company also sells its systems to manufacturers of flat panel displays (FPDs) and flat panel projection devices (FPPs), both of which have fabrication processes similar to those employed in manufacturing integrated circuits. FPDs produce bright, sharp, large, color-rich images on flat, lightweight screens, such as portable computer monitors. Currently, there are three major types of FPDs: liquid crystal displays, field emitter displays and gas plasma displays. Two types of FPP, another emerging display technology, are currently in production: liquid crystal projection and digital micro-mirror displays. The Company sells its products to all three of the active FPD markets, as well as to each of the FPP markets.

DATA STORAGE MANUFACTURING EQUIPMENT MARKETS. The Company's products are sold both to data storage equipment manufacturers and to data storage device manufacturers for use in producing a variety of products, including compact discs, computer hard disks (both media and thin film heads), CD-ROMs and digital video discs. These products use a PVD sputtering 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 is driving the demand for increasingly dense, thinner and more precise films. The use of equipment incorporating magnetic media to store analog and digital data continues to expand with the growth of the laptop, desktop, and workstation computer markets.

INDUSTRIAL MARKETS. The Company sells its products to both OEMs and producers of end products in a variety of industrial markets. Thin films for optical purposes are used in the manufacture of many industrial products, including solar panels, architectural glass, eyeglasses, lens coatings, bar-code readers and front surface mirrors. Thin films of diamond coatings and other materials are now being applied to products in plasma-based processes to strengthen and harden surfaces on such diverse products as tools, automotive parts and hip joint replacements. A variety of industrial packaging applications, such as decorative wrapping and food packaging, are also enabled by thin film processes utilizing the Company's products. The advanced thin film production processes allow precise control of various optical and physical properties, including color, transparency and electrical and thermal conductivity. The improved adhesion and high film quality resulting from plasma processing makes it the preferred method of applying the thin films. Many of these industrial applications require power levels substantially greater than those used in the Company's other markets.

APPLICATIONS

The Company's products have been sold for use in connection with the following processes and applications:

SEMICONDUCTOR - - - - -	DATA STORAGE - - - - -	FLAT PANEL DISPLAY - - - - -	INDUSTRIAL/RESEARCH - - - - -
PVD (Metal)	Thin film heads	Liquid crystal displays	Optical coatings
Etch	CD-ROMs	Active matrix LCDs	Automobile coatings
PECVD (Metal)	Audio discs	Digital micro-mirror	Food package coatings
Ion implantation	Recordable CDs	Plasma displays	Glass coatings
CVD	Hard disk magnetic layers	Large flat panel displays	Consumer products coatings
PECVD (dielectrics)		Field emission displays	Circuit board etch-back and de-smear
Magnet field controls	Hard disk carbon wear coatings	LCD projection	Photo voltaics
Photo resist stripping	Magneto-optic CDs		Medical applications
Megasonic cleaning	Digital video discs		Superconductors
Etch (post-treatment)			Diamond coatings Chemical, physical and materials research

CUSTOMERS

The Company has sold its systems worldwide to more than 100 OEMs and directly to more than 500 end-user customers. Since inception, the Company has sold more than 58,000 power conversion and control systems. The Company's largest customers are involved principally in the semiconductor market. The Company also has significant customers in the data storage, flat panel display and industrial markets. Sales to Applied Materials and Lam Research in 1994, 1995 and 1996 accounted in the aggregate for approximately 38%, 41% and 47% of total sales, respectively. The Company expects that sales of its products to Applied Materials and Lam Research will continue to account for a high percentage of its sales in the foreseeable future. Representative customers of the Company include:

Applied Materials	Lam Research
Balzers/Leybold	Materials Research
CVC Products	Motorola
First Light Technology	Novellus
Fujitsu	Optical Coating Laboratory
Hewlett Packard	Sony
IBM	Sputtered Films
Intevac	Texas Instruments
Komag	Ulvac
	Verteq

MARKETING, SALES AND SERVICE

The Company sells its systems primarily through direct sales personnel to customers in the United States, Japan and Europe. The Company's sales personnel are located at the Company's headquarters in Fort Collins, Colorado, and in regional sales offices in Milpitas, California; Concord, Massachusetts; and Austin, Texas. To serve customers in Asia and Europe, the Company has offices in Tokyo, Japan; Bicester, United Kingdom; and Filderstadt, Germany; which have primary responsibility for sales and service in their respective markets. The Company also sells to customers in Japan through Landmark Technology Corporation and has distributors and sales representatives in France, Italy, Israel, Korea and Taiwan.

Sales outside the United States represented approximately 32%, 29% and 24% of the Company's total sales during 1994, 1995 and 1996, respectively. The Company expects sales outside the United States to continue to represent a significant portion of future sales. Although the Company has not experienced any significant difficulties in connection with its international sales, such sales are subject to certain risks, including exposure to currency fluctuations, the imposition of governmental controls, political and economic instability, trade restrictions, changes in tariffs and taxes, and longer payment cycles typically associated with international sales. The future performance of the Company will depend, in part, upon its ability to compete successfully in Japan, one of the largest markets for semiconductor fabrication equipment and flat panel display

equipment, and a major market for data storage and other industrial equipment utilizing the Company's systems. The Japanese market has historically been difficult for non-Japanese companies to penetrate. Although the Company and a number of its significant non-Japanese customers have begun to establish operations in Japan, there can be no assurance that the Company or its customers will be able to maintain or improve their competitive positions in Japan.

The Company believes that customer service and technical support are important competitive factors and are essential to building and maintaining close, long-term relationships with its customers. The Company maintains customer service offices in Fort Collins, Colorado; Milpitas, California; Tokyo, Japan; Seoul, South Korea; and Filderstadt, Germany.

The Company offers warranty coverage for its systems for periods ranging from 12 to 24 months after shipment against defects in design, materials and workmanship.

BACKLOG

A substantial and increasing portion of the Company's shipments are made on a "just-in-time" basis, which requires the shipment of systems by the Company within a few days or hours after an order is received. The Company schedules production for "just-in-time" customers based on forecasts provided by such customers. Due to the short time between the receipt of orders from such "just-in-time" customers and shipments, the Company operates with a level of backlog which is not at any point in time sufficient to meet the Company's revenue expectations for a particular quarter. In addition, orders from the Company's other customers are subject to cancellation or delay by the customer without penalty. Due to these factors, the Company does not believe that backlog is a meaningful or accurate indicator of its future sales and performance.

MANUFACTURING

The Company's manufacturing facility is located in Fort Collins, Colorado. The Company's manufacturing activities consist of the assembly and testing of components and subassemblies which are then integrated into final products. Once final testing of all electrical and electro-mechanical subassemblies is completed, the final product is tested in a burn-in process to identify product failures. The Company purchases a wide range of electronic, mechanical, and electrical components, some of which are designed to the Company's specifications. The Company does outsource some of its subassembly work.

The Company relies on sole and limited source suppliers for certain parts and subassemblies. This reliance creates a potential inability to obtain an adequate supply of required components, and reduced control over pricing and time of delivery of components. An inability to obtain adequate deliveries or other circumstances that would

require the Company to seek alternative sources of supply or to manufacture such components or subassemblies internally, either of which might require the Company to redesign its systems to accommodate the different components or subassemblies, could prevent the Company from shipping its systems to its customers on a timely basis. The Company believes that alternative sources could be obtained and qualified, if necessary, for sole and limited source parts. However, if the Company were forced to seek alternative sources of supply or to manufacture such components or subassemblies internally, it may be required to redesign its systems, which could prevent the Company from shipping its systems to its customers on a timely basis.

INTELLECTUAL PROPERTY

The Company has a policy of seeking patents on inventions governing new products or technologies as part of its ongoing research, development, and manufacturing activities. The Company holds ten United States patents covering various aspects of its products, and has applied for patents in Europe and Japan. The Company believes the duration of its patents generally exceeds the life cycles of the technologies disclosed and claimed therein. No assurance can be given that the Company's patents will be sufficiently broad to protect the Company's technology, nor that any existing or future patents will not be challenged, invalidated or circumvented, or that the rights granted thereunder will provide meaningful competitive advantages to the Company. Any of such events could have a material adverse effect on the Company's business, financial condition and results of operations.

Although the Company is not aware of any infringement by its products of any patents or proprietary rights of others, there can be no assurance that such infringements do not exist or will not occur in the future. Litigation may be necessary in the future to enforce patents issued to the Company, to protect trade secrets or know-how owned by the Company, to defend the Company against claimed infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Any such litigation could result in substantial cost and diversion of effort by the Company, which could have a material adverse effect on the Company's business, financial condition and results of operations. Moreover, adverse determinations in such litigation could result in the Company's loss of proprietary rights, subject the Company to significant liabilities to third parties, require the Company to seek licenses from third parties or prevent the Company from manufacturing or selling its products, any of which could have a material adverse effect on the Company's business, financial condition and results of operations.

COMPETITION

The markets the Company serves are highly competitive and characterized by rapidly evolving technology. Significant competitive factors in the Company's markets include product performance, price, quality and reliability and level of customer service and

support. The Company believes that it currently competes effectively with respect to these factors, although there can be no assurance that the Company will be able to compete effectively in the future.

The markets in which the Company competes have seen an increase in global competition, especially from Japanese-based and European-based equipment vendors. The Company has several foreign and domestic competitors for each of the DC, low-frequency and mid-frequency AC, and radio frequency AC lines of products. Some of these competitors are larger and have greater resources than the Company. The Company's ability to continue to compete successfully in these markets will depend upon its ability to introduce product enhancements and new products on a timely basis. The Company's primary competitors are ENI, a subsidiary of Astec (BSR) PLC, Huttinger, Shindigen, Kyosan, RF Power Products, Comdel and Daihen. The Company's competitors in each product area are expected to continue to improve the design and performance of their systems and to introduce new systems with competitive performance characteristics. To remain competitive, the Company believes it will be required to maintain a high level of investment in research and development and sales and marketing. No assurance can be given that the Company will continue to be competitive in the future.

INDUSTRY SEGMENTS

The Company operates entirely within one industry sector.

RESEARCH AND DEVELOPMENT

The market for power conversion and control systems and related accessories is characterized by rapid technological changes. The Company believes that continued and timely development of new products and enhancements to existing products to support OEM requirements is necessary for the Company to maintain a competitive position in the markets the Company serves. Accordingly, the Company devotes a significant portion of its personnel and financial resources to research and development projects and seeks to maintain close relationships with its customers and other industry leaders to remain responsive to their product requirements.

Research and development expenses were approximately \$5.8 million, \$10.5 million and \$13.8 million in fiscal 1994, 1995 and 1996, respectively. These amounts represented 11.3%, 11.1% and 13.9% of total sales for those periods. From 1994 to 1996, the Company introduced more than sixty-five new products. The Company believes that continued research and development investment is essential to ongoing development of new products and does not expect any significant decline in spending as a percentage of sales.

NUMBER OF EMPLOYEES

At December 31, 1996, the Company had a total of 630 employees, of whom 600 are full-time continuous employees. None of the Company's employees is represented by a union, and the Company has never experienced a work stoppage. The Company utilizes temporary employees as a means to provide additional staff while reviewing the performance of the temporary employee. The Company considers its employee relations to be good.

EFFECTS OF ENVIRONMENTAL LAWS

The Company is subject to federal, state and local environmental laws and regulations. The Company is in compliance with all such laws and regulations.

CAUTIONARY STATEMENTS - RISK FACTORS

In the interest of providing the Company's shareholders and potential investors with certain Company information, including management's assessment of the Company's future potential, certain statements set forth herein contain or are based on projections of revenue, income, earnings per share and other financial items or relate to management's future plans and objectives or to the Company's future economic performance. Such statements are "forward-looking statements" within the meaning of Section 27A(i) of the Securities Act of 1933, as amended, and in Section 21E(i) of the Securities Exchange Act of 1934, as amended.

Although any forward-looking statements contained herein or otherwise expressed by or on behalf of the Company are to the knowledge and in the judgment of the officers and directors of the Company, expected to prove true and to come to pass, management is not able to predict the future with absolute certainty. Accordingly, shareholders and potential investors are hereby cautioned that certain events or circumstances could cause actual results to differ materially from those projected or predicted herein. In addition, the forward-looking statements herein are based on management's knowledge and judgment as of the date hereof, and the Company does not intend to update any forward-looking statements to reflect events occurring or circumstances existing hereafter.

In particular, the Company believes that the following factors could impact forward-looking statements made herein or in future written or oral releases and by hindsight, prove such statements to be overly optimistic and unachievable.

VOLATILITY OF THE SEMICONDUCTOR AND SEMICONDUCTOR EQUIPMENT INDUSTRIES

Approximately 60% of the Company's sales in 1995 and 61% in 1996 were made to OEMs and other customers in the semiconductor equipment industry. The Company expects that its business will continue to depend in significant part on the semiconductor

and semiconductor equipment industries for the foreseeable future. The Company's business depends in large part upon capital expenditures by manufacturers of semiconductor devices, which in turn depends upon the current and anticipated market demand for semiconductor devices and products utilizing such devices. The semiconductor industry historically has been volatile and has experienced periods of oversupply, resulting in significantly reduced demand for semiconductor fabrication equipment. There can be no assurance that the growth in the semiconductor and semiconductor equipment industries, or the resulting growth in the Company's business, can be sustained or that there will not be a downturn or slowdown in any of such markets which could have a material adverse effect on the Company's business, financial condition and results of operations.

CUSTOMER CONCENTRATION

Sales to Applied Materials and Lam Research, the two leading domestic manufacturers of semiconductor fabrication equipment, together accounted for approximately 41% and 47% of the Company's revenues during 1995 and 1996, respectively. The Company expects that sales of its systems to Applied Materials and Lam Research will continue to account for a high percentage of its sales in the foreseeable future. The loss of any of its major customers, particularly Applied Materials or Lam Research, or a reduction in orders from any of such customers, including reductions caused by changes in a customer's competitive position or economic conditions in the industries in which the Company's customers compete, could have a material effect on the Company's business, financial condition and results of operations.

DEPENDENCE ON DESIGN WINS

The Company believes that design wins are critical to retaining existing customers and to obtaining new customers. Generally an equipment manufacturer selects a power conversion and control system for each of its systems and products. Because power conversion and control systems vary in characteristics such as power, dimensions and modes of interfacing with the customer's equipment, once a power conversion and control system is selected for use in a particular system or product, it is unlikely that it will be displaced during the life of that system or product. As a result, the Company's failure to achieve design wins for semiconductor fabrication and other equipment could have a material and prolonged adverse effect on the Company's sales and growth.

RAPID TECHNOLOGICAL CHANGE AND DEPENDENCE ON NEW SYSTEM INTRODUCTION

The market for power conversion and control systems is characterized by ongoing technological developments and changing customer requirements. The markets in which the Company's customers compete are also characterized by continually evolving technology. The Company's success depends upon its ability to continue to improve existing systems and to develop and introduce new systems that keep pace with technological advances and adapt to support its customers' changing needs. There can be no assurance that the Company will continue to be able to improve its existing systems or

develop new systems that will adequately address the changing needs of its customers and the marketplace. Even if the Company is able to develop improved or new systems, there can be no assurance that such systems will be cost-effective or introduced in a timely manner. Development and introduction of new systems may involve significant costs that are difficult to forecast. Failure of the Company to develop or introduce improved systems and new systems in a timely manner could have a material adverse effect on the Company's business, financial condition and results of operations, as well as on its customer relationships.

COMPETITION

The Company faces substantial competition, primarily from established companies, some of which have greater financial, marketing and technical resources than the Company. The Company expects its competitors to continue to develop new products aimed at applications currently served by the Company, to continue to improve the design and performance of their systems, and to introduce new systems with competitive performance characteristics. To remain competitive, the Company believes it will be required to maintain a high level of investment in research and development and sales and marketing. There can be no assurance that the Company will have sufficient resources to continue to make such investments or that the Company will be able to make the technological advances necessary to maintain its competitive position. In addition, new products developed by competitors could make pricing more competitive, which may necessitate significant price reductions by the Company or result in lost orders, either of which could have a material adverse effect on the Company's business, financial condition and results of operations.

MANAGEMENT OF GROWTH

The Company is experiencing a period of rapid growth and expansion, which has placed, and is expected to continue to place, significant demands on the Company's resources. The management of such growth will require the Company to continue to improve and expand its management, operational and financial systems, procedures and controls, including accounting and other internal management systems, quality control, delivery and service capabilities. To accommodate its recent growth, the Company expects to implement in 1997 a new integrated information management system that will incorporate substantially all of the Company's internal financial and business systems, procedures and controls. Any failure to manage growth effectively, including delays or difficulties implementing the new systems, procedures and controls in a timely manner and without disruption of the Company's operations, could have a material adverse effect on the Company's business, financial condition and results of operations.

EXECUTIVE OFFICERS OF THE REGISTRANT

The executive officers of the Company and their ages as of February 28, 1997 are as follows:

NAME ----	AGE ---	POSITION -----
Douglas S. Schatz	51	President, Chief Executive Officer and Chairman of the Board
G. Brent Backman	56	Vice President, Special Projects, Assistant Secretary and Director
Eric A. Balzer	48	Vice President, Operations
Richard P. Beck	63	Vice President, Chief Financial Officer and Director
James F. Gentilcore	44	Vice President, Sales and Marketing
Timothy A. Kerr	36	Vice President, Engineering
Susan C. Schell	47	Vice President, Human Resources and Corporate Quality
Richard A. Scholl	57	Vice President and Chief Technology Officer

Douglas S. Schatz is a co-founder of the Company and has been its President and Chief Executive Officer and a director since its incorporation in 1981. Mr. Schatz also co-founded Energy Research Associates, Inc. and served as its Vice President of Engineering from 1977 through 1980. Prior to co-founding Energy Research Associates, Mr. Schatz held various engineering and management positions at Applied Materials.

G. Brent Backman is a co-founder of the Company and has been a Vice President and a director of the Company since its incorporation in 1981. Mr. Backman became Vice President, Special Projects in 1994. Prior to co-founding Advanced Energy, Mr. Backman was a Business Manager at Ion Tech, Inc. and a Laboratory Administrator at Hughes Aircraft Company.

Eric A. Balzer joined Advanced Energy in 1990 as Vice President, Operations. Prior to joining the Company, Mr. Balzer was Materials and Manufacturing Manager for the Systems Technology Division of IBM Corporation.

Richard P. Beck joined Advanced Energy in 1992 as Vice President and Chief Financial Officer. He became a director of the Company in 1995. From 1987 to 1992, Mr. Beck served as Executive Vice President and Chief Financial Officer of Cimage Corporation, a computer software company. Mr. Beck is also a director of Target Financial, Inc., a privately-held financial services company.

James F. Gentilcore joined the Company in 1996 as Vice President, Sales and Marketing. Prior to joining the Company, Mr. Gentilcore was Vice President, Marketing at MKS Instruments.

Timothy A. Kerr joined the Company in 1987 as an engineer in the DC products group and in 1995 became Director of Engineering. Prior to joining the Company, Mr. Kerr was a member of the technical staff at Hughes Aircraft Company.

Susan C. Schell joined Advanced Energy in 1984 as Human Resources Manager and became Vice President, Human Resources and Corporate Quality in 1991. Prior to joining the Company, Ms. Schell was a Management Advisory Services Consultant with Cady and Company, P.C.

Richard A. Scholl joined Advanced Energy in 1988 as Vice President, Engineering. Mr. Scholl became Chief Technology Officer of the Company in 1995. Prior to joining the Company, Mr. Scholl was General Manager, Vacuum Products Division at Varian Associates, Inc.

ITEM 2. PROPERTIES

The Company's headquarters are located in Fort Collins, Colorado, in approximately 135,000 square feet of leased space. The Company also maintains sales and service offices in Milpitas, California; Tokyo, Japan; Filderstadt, Germany; and Seoul, South Korea; and sales offices in Concord, Massachusetts; Austin, Texas; and Bicester, United Kingdom.

ITEM 3. LEGAL PROCEEDINGS

The Company is not a party to any legal proceedings in the ordinary course of its business to the best of its knowledge.

ITEM 4. SUBMISSION OF MATTERS TO A VOTE OF SECURITY HOLDERS

Not applicable.

PART II

ITEM 5. MARKET PRICE FOR REGISTRANT'S COMMON STOCK AND RELATED STOCKHOLDER MATTERS

Prior to November 17, 1995, there had been no public market for the Company's Common Stock. The Common Stock was approved for quotation on the NASDAQ Stock Market under the symbol AEIS, beginning November 17, 1995. At January 31, 1997, the number of common stockholders of record was 509.

The range of high and low bid quotations for the Company's Common Stock as quoted (without retail markup or markdown and without commissions) on the NASDAQ Stock Market since its initial public offering is provided below. They do not necessarily represent actual transactions:

	High Bid -----	Low Bid -----
1995 Fiscal Year -----		
Fourth Quarter (from November 17)	11	8 1/4
1996 Fiscal Year -----		
First Quarter	10	6 1/2
Second Quarter	9 1/8	5 3/4
Third Quarter	7 3/4	4 1/2
Fourth Quarter	7 1/4	2 7/8

The Company has not declared or paid any cash dividends on its capital stock since it terminated its election to be treated as an S corporation for tax purposes, effective January 1, 1994. The Company currently intends to retain all future earnings to finance its business. Accordingly, the Company does not anticipate paying cash or other dividends on its Common Stock in the foreseeable future. Furthermore, the Company's revolving credit facility prohibits the declaration or payment of any cash dividends on the Common Stock.

ITEM 6. SELECTED CONSOLIDATED FINANCIAL DATA

The following selected consolidated financial data is qualified by reference to, and should be read in conjunction with, the Company's 1996 Consolidated Financial Statements and notes thereto and the discussion thereof included elsewhere in this Form 10-K. The selected consolidated statements of operations for the years ended December 31, 1994, 1995 and 1996 and the related consolidated balance sheet data as of and for the years ended December 31, 1995 and 1996 derived from consolidated financial statements have been audited by Arthur Andersen LLP, independent accountants, whose report with respect thereto is included elsewhere in this Form 10-K. The selected consolidated statements of operations data for the years ended December 31, 1992 and 1993, and the related consolidated balance sheet data as of December 31, 1992, 1993 and 1994 have been derived from audited consolidated financial statements of the Company not included in this Form 10-K.

YEARS ENDED DECEMBER 31,

	1996	1995	1994	1993	1992
	-----	-----	-----	-----	-----
(IN THOUSANDS, EXCEPT SHARE DATA)					
STATEMENT OF OPERATIONS DATA:					
Sales.....	\$98,852	\$94,708	\$51,857	\$31,577	\$23,950
Gross profit.....	36,814	45,394	25,814	15,248	11,609
Total operating expenses.....	28,603	23,916	15,811	11,547	11,034
Income from operations.....	8,211	21,478	10,003	3,701	575
Net income.....	\$ 5,144	\$13,281	\$ 5,963	\$ 3,417	\$ 301
	-----	-----	-----	-----	-----
Net income per share.....	\$ 0.24	\$ 0.69	\$ 0.32		
Pro forma net income(1).....				\$ 2,054	\$ 183
				-----	-----
				-----	-----

	DECEMBER 31,				
	-----	-----	-----	-----	-----
	1996	1995	1994	1993	1992
	-----	-----	-----	-----	-----
(IN THOUSANDS)					
BALANCE SHEET DATA:					
Working capital.....	\$35,179	\$33,749	\$ 7,773	\$ 3,587	\$ 2,849
Total assets.....	56,031	55,319	23,149	13,389	9,310
Total debt.....	2,051	2,484	9,946	8,459	2,680
Stockholders' equity.....	46,496	41,087	7,218	1,011	4,025

(1) In 1992 and 1993, the Company was treated as an S corporation for tax purposes. The Company terminated its election to be treated as an S corporation effective as of January 1, 1994. Pro forma information assumes federal, state and foreign income tax rates aggregating 40.0%. See Note 9 of Notes to Consolidated Financial Statements.

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

OVERVIEW

The Company designs, manufactures, markets and supports power conversion and control systems used in industrial processes. The Company's systems are key elements in products that utilize gaseous plasmas to deposit or etch thin film layers on materials or substrates such as silicon, glass and metals. The Company commenced operations in 1981 and has been profitable each year since its inception. The Company markets and sells its systems primarily to original equipment manufacturers (OEMs) of semiconductor, flat panel display, data storage and other industrial thin film manufacturing equipment. A substantial and increasing proportion of the Company's sales are made on a "just-in-time" basis in which the shipment of systems occurs within a few days or hours after an order is received. The Company recognizes revenues, which are derived from the sales of power conversion and control systems, upon shipment of its systems.

The semiconductor equipment industry accounted for approximately 60% of the Company's sales in 1995 and 61% in 1996. The Company has benefited from strong growth in the semiconductor industry in recent years until the industry growth slowed in mid-1996. The two largest customers of the Company are also the largest domestic semiconductor equipment manufacturers. The Company has also experienced growth in sales to the other industries it serves during the last three years, with the exception of a decline in sales to the flat panel display industry in 1996, primarily in Japan. The future success of the Company depends on continued growth of the semiconductor equipment industry, data storage industry, flat panel display industry, and other industries requiring thin film manufacturing processes. To date, the Company has been successful in achieving a number of "design wins" which have resulted in the Company obtaining new customers and solidifying relationships with its existing customers. The Company believes that its ability to continue to achieve design wins with existing and new customers will be critical to its future success.

In response to the high rate of growth in 1994 and 1995 and anticipated growth during 1996, the Company made substantial investments in infrastructure such as information technology, facilities, sales and support worldwide in 1996, which caused operating expenses to increase. This, combined with the slower growth in the semiconductor industry, resulted in reduced operating margins in 1996. Margins are not expected to improve until the semiconductor equipment industry rebounds and returns to growth more in line with historical experience.

During the third quarter, the Company announced cost containment measures in response to recent declines in orders to the semiconductor capital equipment market. As part of these measures, the Company reduced headcount by 7%, reduced leased facilities

by 7%, initiated a 10% decrease in senior management salaries and reevaluated inventories for excess and obsolete parts. These efforts resulted in additional charges of \$350,000 related to severance pay, charges associated with subleasing facilities and an increased provision for excess inventories.

RESULTS OF OPERATIONS

The following table sets forth certain statement of operations data of the Company expressed as a percentage of sales:

YEARS ENDED DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
Sales.....	100.0%	100.0%	100.0%
Cost of sales.....	62.8	52.1	50.2
	-----	-----	-----
Gross margin.....	37.2	47.9	49.8
	-----	-----	-----
Operating expenses:			
Research and development.....	13.9	11.1	11.3
Sales and marketing.....	8.7	6.5	9.0
General and administrative	6.3	7.6	10.2
	-----	-----	-----
Total operating expenses.....	28.9	25.2	30.5
	-----	-----	-----
Income from operations.....	8.3	22.7	19.3
Other income (expense).....	0.1	(0.4)	(0.6)
	-----	-----	-----
Income before income taxes.....	8.4	22.3	18.7
Provision for income taxes.....	3.2	8.3	7.2
	-----	-----	-----
Net income.....	5.2%	14.0%	11.5%
	-----	-----	-----

SALES

Sales were \$51.9 million, \$94.7 million and \$98.9 million in 1994, 1995 and 1996, respectively, representing an increase of 82% from 1994 to 1995 and 4% from 1995 to 1996. The Company's sales growth during all periods presented has resulted from the increased unit sales of the Company's systems. A significant part of this growth during 1996 is attributable to increased sales to domestic customers and to customers in Europe, offset by a 46% decrease in Japan sales when compared to 1995. In 1995 the Company sold subsystems in Japan to replace subsystems originally provided by competitors. That retrofit program was completed in 1995. A substantial portion of the Company's sales growth since 1994 is attributable to higher system sales to the Company's two largest customers, both of whom are primarily semiconductor equipment OEMs.

Sales to international customers, primarily in Japan, Asia and Europe, were approximately \$16.7 million, \$27.3 million, and \$24.0 million in 1994, 1995 and 1996, respectively. These amounts represented 32%, 29% and 24% of sales for those periods. During these periods, sales in Japan were primarily to flat panel display and data storage equipment manufacturers and sales in Europe were primarily to data storage equipment manufacturers.

GROSS MARGIN

The Company's gross margins during the periods presented have varied in the range of 37.2% to 49.8%. Gross margin of 49.8% in 1994 and 47.9% in 1995 decreased to 37.2% in 1996. Major factors causing the decrease in gross margin from 1995 to 1996 were generally higher material costs and other costs associated with continued outsourcing efforts in the first half of 1996, and underabsorption of manufacturing overhead due to lower sales in the second half of 1996. Sales for the first six months of 1996 were \$57.0 million versus sales of \$43.0 million in the comparable period in 1995, an increase of 33%, while sales in the last six months of 1996 were \$41.9 million versus sales of \$51.7 million for the comparable period in 1995, a decrease of 19%. Additionally, gross margin was negatively impacted throughout 1996 by a shift in product mix toward products on which material costs increased as a percentage of sales and by increased customer service costs, which increased as a percentage of sales, as a result of the lower sales base.

During the periods presented, the average selling price per unit has remained relatively constant. Historically, price competition has not had a material effect on margins. However, competitive pressures may produce a decline in average selling prices for certain products. Any material decline in average selling prices not offset by reduced costs could result in a material decline in the Company's gross margins.

The Company provides warranty coverage for its systems ranging from 12 to 24 months. The Company estimates the anticipated costs of repairing its systems under such warranties based on the historical average costs of the repairs. To date, the Company has not experienced significant warranty costs in excess of its recorded reserves.

RESEARCH AND DEVELOPMENT

The Company's research and development costs are associated with researching new technologies, developing new products and improving existing product designs. Research and development expenses were \$5.8 million, \$10.5 million and \$13.8 million for 1994, 1995 and 1996, respectively, representing an increase of 81% from 1994 to 1995 and 31% from 1995 to 1996. As a percentage of sales, research and development expenses decreased from 11.3% in 1994 to 11.1% in 1995 and increased to 13.9% in 1996. The increase in expenses from 1995 to 1996 are primarily associated with increases in payroll costs and outside service costs incurred to support new product development and standards compliance certification.

The Company believes that continued research and development investment is essential to ongoing development of new products and does not expect any significant decline in spending as a percentage of sales. Since inception, all research and development costs have been internally funded and expensed.

SALES AND MARKETING

Sales and marketing expenses support domestic and international sales and marketing activities which include personnel, trade shows, advertising, and other marketing activities. Sales and marketing expenses were \$4.7 million, \$6.2 million and \$8.6 million for 1994, 1995 and 1996, respectively. This represented a 32% increase from 1994 to 1995 and a 39% increase from 1995 to 1996. The increases are attributable to increases in payroll, promotional materials, advertising, commissions and travel costs associated with expansion to support the increase in sales volume. As a percentage of sales, these expenses decreased from 9.0% in 1994 to 6.5% in 1995 and increased to 8.7% in 1996. The increase of sales and marketing as a percentage of sales during 1996 was attributed to a lower than anticipated sales base achieved during the period.

The Company is reorganizing its sales and marketing team to better address the specific needs of its customers. To accomplish this, the Company hired a vice president of sales, marketing and customer support, and opened a new support office in South Korea. As a result, sales and marketing expenses may continue to increase as a percentage of sales in future periods.

GENERAL AND ADMINISTRATIVE

General and administrative expenses support the worldwide financial, administrative, information systems and human resources functions of the Company. General and administrative expenses were \$5.3 million, \$7.2 million and \$6.3 million which represented 10.2%, 7.6% and 6.3% of sales for 1994, 1995 and 1996, respectively. The overall decrease as a percentage of sales from 1994 to 1996 is attributable to the Company's effort to maintain a level of general and administrative costs that do not increase at the same rate as sales. Most of the decreases in these costs were recognized in payroll, recruitment fees, and travel.

The Company is currently implementing information management system software which will replace existing systems to support its growth. The Company expects that significant charges related to training and implementation of the new software will occur during 1997.

OTHER INCOME (EXPENSE)

Other income consists primarily of foreign exchange gains and losses and other miscellaneous income and expense items. Approximately 60% of the Company's foreign sales are denominated in local currencies. The Company recognized a foreign exchange gain of \$0.4 million in 1994, primarily due to increases in the values of both the German Deutsch Mark and the Japanese Yen. An increase in the value of the Deutsch Mark of 7% and a decrease in the value of the Yen of 4% resulted in essentially no foreign exchange gain or loss in 1995. During 1996 the Company recorded a net foreign

exchange loss of \$0.4 million primarily as a result of a 12% decrease in the value of the Yen. During the second half of 1996 the Company entered into various forward foreign exchange contracts to mitigate the effect of depreciation in the Japanese Yen. The Company continues to evaluate various policies to minimize the effect of currency fluctuations.

Interest expense consists principally of borrowings under the Company's bank credit and capital lease facilities and was approximately \$0.6 million, \$0.6 million and \$0.2 million for the years 1994, 1995 and 1996, respectively. Interest expense decreased from 1995 to 1996 primarily as a result of repayments of equipment loans and less borrowing due to the availability of working capital provided from the proceeds of the Company's initial public offering in November 1995.

Interest income was approximately \$0.1 million, \$0.1 million and \$0.5 million for the years 1994, 1995 and 1996, respectively. The increase in 1996 was due primarily to earnings on investments made from the proceeds of the initial public offering in November 1995.

PROVISION FOR INCOME TAXES

The income tax provision of \$7.8 million in 1995 represented a 37.0% effective tax rate. The income tax provision of \$3.2 million for 1996 represented an effective rate of 38.1%. The increase in the Company's tax rate from 1995 to 1996 is primarily attributed to a higher effective state tax rate resulting from a larger proportion of the Company's sales being shipped to higher tax rate jurisdictions, particularly California. Changes in the relative earnings of the Company and its foreign subsidiaries affect the Company's consolidated effective tax rate. To the extent that a larger percentage of taxable earnings are derived from the Company's foreign subsidiaries whose tax rates are higher than domestic tax rates, the Company could experience a higher consolidated effective tax rate.

QUARTERLY RESULTS OF OPERATIONS

The following table presents unaudited quarterly results in dollars and as a percentage of sales for the eight quarters ended December 31, 1996. The Company believes that all necessary adjustments, consisting only of normal recurring 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, 1996	JUNE 30, 1996	SEPT. 30, 1996	DEC. 31, 1996	MAR. 31, 1995	JUNE 30, 1995	SEPT. 30, 1995	DEC. 31, 1995
	(IN THOUSANDS, EXCEPT PER SHARE DATA)							
Sales.....	\$27,166	\$29,831	\$21,639	\$20,216	\$18,039	\$24,945	\$25,554	\$26,170
Cost of sales.....	17,035	17,204	15,047	12,752	9,684	12,055	12,734	14,842
Gross profit.....	10,131	12,627	6,592	7,464	8,355	12,890	12,820	11,328
Operating expenses:								
Research and development.....	3,498	3,645	3,349	3,268	2,064	2,330	2,711	3,416
Sales and marketing.....	2,083	2,248	2,201	2,058	1,307	1,415	1,571	1,908
General and administrative....	1,725	2,330	933	1,265	1,652	1,962	1,801	1,778
Total operating expenses.....	7,306	8,223	6,483	6,591	5,023	5,707	6,083	7,102
Income from operations.....	2,825	4,404	109	873	3,332	7,183	6,737	4,226
Other (expense) income.....	(170)	(66)	97	232	(103)	199	(562)	73
Income before income taxes.....	2,655	4,338	206	1,105	3,229	7,382	6,175	4,299
Provision for income taxes.....	982	1,676	83	419	1,232	2,873	2,116	1,583
Net income.....	\$ 1,673	\$ 2,662	\$ 123	\$ 686	\$ 1,997	\$ 4,509	\$ 4,059	\$ 2,716
Net income per share.....	\$ 0.08	\$ 0.12	\$ 0.01	\$ 0.03	\$ 0.11	\$ 0.24	\$ 0.21	\$ 0.13
Weighted average number of shares and share equivalents..	21,794	21,653	21,622	21,728	18,724	19,046	19,170	20,577

	QUARTERS ENDED							
	MAR. 31, 1996	JUNE 30, 1996	SEPT. 30, 1996	DEC. 31, 1996	MAR. 31, 1995	JUNE 30, 1995	SEPT. 30, 1995	DEC. 31, 1995
	(IN THOUSANDS, EXCEPT PER SHARE DATA)							
PERCENTAGE OF SALES:								
Sales.....	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of sales.....	62.7	57.7	69.5	63.1	53.7	48.3	49.8	56.7
Gross margin.....	37.3	42.3	30.5	36.9	46.3	51.7	50.2	43.3
Operating expenses:								
Research and development....	12.9	12.2	15.5	16.2	11.4	9.3	10.6	13.1
Sales and marketing.....	7.7	7.5	10.2	10.2	7.2	5.7	6.1	7.3
General and administrative..	6.3	7.8	4.3	6.2	9.2	7.9	7.0	6.8
Total operating expenses.....	26.9	27.5	30.0	32.6	27.8	22.9	23.7	27.2
Income from operations.....	10.4	14.8	0.5	4.3	18.5	28.8	26.5	16.1
Other (expense) income.....	(0.6)	(0.3)	0.5	1.2	(0.6)	0.8	(2.3)	0.3
Income before income taxes....	9.8	14.5	1.0	5.5	17.9	29.6	24.2	16.4
Provision for income taxes....	3.6	5.6	0.4	2.1	6.8	11.5	8.3	6.0
Net income.....	6.2%	8.9%	0.6%	3.4%	11.1%	18.1%	15.9%	10.4%

The Company has experienced and expects to continue to experience significant fluctuations in its quarterly operating results. The Company's expense levels are based, in part, on expectations of future revenues. If revenue levels in a particular quarter do not meet expectations, operating results may be adversely affected. A variety of factors have an influence on the level of the Company's revenues in a particular quarter. These factors include general economic conditions, specific economic conditions in the industries the Company serves, the timing of the receipt of orders from major customers, customer cancellations or delay of shipments, specific feature requests by customers, production delays or manufacturing inefficiencies, exchange rate fluctuations, management decisions to commence or discontinue product lines, the Company's ability to design, introduce and manufacture new products on a cost effective and timely basis, the introduction of new products by the Company or its competitors, the timing of research and development expenditures, and expenses related to acquisitions, strategic alliances, and the further development of marketing and service capabilities.

A substantial portion of the Company's shipments are made on a "just-in-time" basis in which shipment of systems occurs within a few days or hours after an order is received. The Company's backlog is not meaningful because of the importance of "just-in-time" shipments. The Company is dependent on obtaining orders for shipment in a particular quarter to achieve its revenue objectives for that quarter. Accordingly, it is difficult for the Company to predict accurately the timing and level of sales in a particular quarter. Due to its "just-in-time" program, the Company anticipates quarterly fluctuations in sales will continue to occur.

The Company's quarterly operating results in 1995 and 1996 reflect primarily the changing demand for the Company's products during this period, principally from manufacturers of semiconductor equipment, and the Company's ability to quickly adjust its manufacturing capacity to meet this demand. Total sales for the Company increased sequentially from the first quarter of 1995 through the second quarter of 1996, representing increased demands from semiconductor equipment companies. Demand from the semiconductor equipment companies, reflecting an overall industry slowdown, dropped significantly in the third and fourth quarters of 1996, and demand from the data storage market dropped in the fourth quarter of 1996. Segments of the data storage industry are cyclical as new manufacturing lines are installed. Both slowdowns negatively impacted the revenues of the Company in the second half of 1996. Additionally, sales to the flat panel display industry, primarily in Japan, were significantly lower throughout 1996 from their 1995 level.

The Company's gross margin fluctuated significantly on a quarterly basis in 1995 and 1996, primarily reflecting utilization of manufacturing capacity. Average selling prices remained relatively constant throughout the periods presented. The Company's gross margin of 46.3% in the first quarter of 1995 was attributable to increased hiring of manufacturing personnel in anticipation of additional manufacturing capacity becoming available in 1995, and to costs associated with outsourcing of subassemblies to further increase manufacturing capacity. In the second and third quarters of 1995, the Company's gross margin improved to 51.7% and 50.2%, respectively, as the Company utilized its additional manufacturing capacity. In the fourth quarter of 1995, the gross margin decreased substantially to 43.3%. This resulted from increased costs associated with small quantity purchases for parts required for a design change required by the Company's customers selling to European users; an increase in personnel to support anticipated demand; increased costs for outsourced subassemblies; an increase in the manufacturing organizations' portion of facilities and information systems; and increased costs associated with the expansion of the customer service organization. The decrease of gross margin to 37.3% in the first quarter of 1996 was primarily attributable to higher costs associated with outsourcing assemblies, changes in product mix, and costs associated with expanding into additional manufacturing facilities. The increase in gross margin to 42.3% in the second quarter of 1996 resulted from price reductions achieved through negotiations with the Company's supplier base, a reduction in consigned labor outsourcing, lower pricing as a result of purchasing negotiations, and a decision to produce high labor content printed circuit boards in-house. Additionally, gross margin

was positively impacted by higher revenues than in the first quarter which resulted in more favorable absorption of manufacturing overhead. The reduction in gross margin to 30.5% in the third quarter of 1996 was primarily the result of underabsorbed fixed manufacturing costs from reduced revenue, as revenues in the third quarter of 1996 were \$8.2 million lower than in the second quarter of 1996, and from higher fixed overhead expenses from expanded physical capacity. Additionally, gross margin was negatively impacted by a shift in product mix toward products on which material costs as a percentage of sales were higher than the previous quarter. Increased customer service costs, as a percentage of sales also contributed to the lower gross margin. The improvement of gross margin to 36.9% in the fourth quarter of 1996 was attributable to a favorable product mix, decreased direct material costs and decreased customer service costs, each of which decreased as a percentage of sales, and favorable adjustments resulting from a review of inventory reserves for excess, obsolete, and revaluation.

The Company's operating expenses increased on a quarterly basis throughout 1995 and through the first half of 1996. Since the fourth quarter of 1995, operating expenses have included additional legal and administrative expenses as a result of being a publicly held company. Additionally, the Company has expensed costs incurred for consultants used in the implementation of a new information management system software. The Company expects expenses related to the implementation of the software to continue through 1997 as additional phases are implemented, including integration of the information systems of the Company's international subsidiaries. Decreases in the second half of 1996 reflect a companywide restructuring and the implementation of cost containment measures in the third quarter. As a percentage of sales, operating expenses have declined during periods of rapid sales growth, when sales increased at a rate faster than the Company's ability to add personnel and facilities to support the growth, and increased during periods of flat or decreased sales, when the Company infrastructure is retained to support anticipated future growth. During the four quarters of 1995 and the first two quarters of 1996, during periods of growth, operating expenses varied between 23% and 28% of sales. In contrast, operating expenses as a percentage of sales were 30% and 33%, respectively, for the last two quarters of 1996, when sales were lower than in the previous five quarters.

Other income (expense) consists primarily of interest income and expense and foreign currency gain and loss. Net foreign exchange losses of approximately \$0.5 million in the last half of 1995 offset the foreign exchange gains recognized in the previous two quarters. The net foreign exchange loss of \$0.4 million in 1996 was recognized during the first and fourth quarters of 1996, with essentially no gain or loss in the second and third quarter. The Company's provision for income taxes has remained relatively stable in 1995 and 1996.

LIQUIDITY AND CAPITAL RESOURCES

Since its inception, the Company has financed its operations, acquired equipment and met its working capital requirements through borrowings under its revolving line of

credit, long-term loans secured by property and equipment and cash flow from operations, and, from November 1995, proceeds from its initial public offering.

Cash provided by operations totaled \$3.7 million in 1995, and \$3.3 million in 1996. In 1995, substantial increases in inventory and accounts receivable were more than offset by net income, depreciation and amortization, and increases in accounts payable, accrued liabilities and income taxes payable. Major factors contributing to cash provided by operations in 1996 were net income, depreciation and amortization and decreases in inventory, partially offset by increases in accounts receivable and decreases in accounts payable. The Company's accounts receivable increased from \$15.2 million at December 31, 1995 to \$16.1 million at December 31, 1996, reflecting the Company's increased sales during this period. Inventory decreased from \$16.1 million to \$14.0 million during the same period, reflecting the Company's emphasis on improving inventory management and additions to certain reserves for potentially excess and obsolete inventory. The Company expects future receivable and inventory balances to fluctuate with net sales. The Company provides "just-in-time" deliveries to certain of its customers and may be required to maintain substantial levels of inventory to satisfy its customers' delivery requirements.

Investing activities, consisting primarily of equipment acquisitions, used cash of \$3.8 million and \$5.1 million in 1995 and 1996, respectively. Financing activities in 1995, consisting primarily of net proceeds raised of \$21.2 million from the initial public offering, offset by note and loan repayments, provided cash of \$13.9 million in 1995. In 1996, financing activities consisted primarily of net proceeds of notes payable to finance equipment of \$1.6 million, offset by repayments of notes payable and capital lease obligations and used cash of \$0.3 million. Long-term loans secured by property and equipment were \$1.6 million in 1995 and \$1.5 million in 1996.

The Company plans to spend approximately \$3.0 million through 1997 for the acquisition of equipment and integrated information management system software, leasehold improvements and furnishings.

As of December 31, 1996, the Company had working capital of \$35.2 million. The Company's principal sources of liquidity consisted of \$11.2 million of cash and cash equivalents, \$10.0 million available under a \$10.0 million revolving line of credit that bears interest at prime rate (8.25% at January 31, 1997) or LIBOR plus 250 basis points. The Company has the option to convert up to \$3.0 million of its revolving line of credit to a 36-month term loan that would bear interest at prime plus 0.50%. Covenants under the new line of credit include a minimum ratio of quick assets to current liabilities of 1.75; a minimum debt service ratio of 2.0; a ratio of debt to net worth not to exceed 1.0; a minimum tangible net worth of \$38 million; and profitability on a quarterly basis with an allowance for one quarterly loss up to \$0.5 million. In addition, payment of dividends will be prohibited without the prior written consent of the bank.

The Company entered into an agreement effective October 31, 1996, that will provide the Company with a \$2.5 million line of credit to purchase equipment, of which \$1.5 million was advanced to refinance previous equipment loans. At December 31, 1996, \$1.5 million was outstanding under the term loan, which bears interest at prime rate plus 0.25% and is due November 5, 1999.

The Company believes that its cash and cash equivalents, cash flow from operations, and available borrowings will be sufficient to meet the Company's working capital needs through at least the end of 1997. After that time, the Company may require additional equity or debt financing to address its working capital, capital equipment, or expansion needs. There can be no assurance that additional funding will be available when required or that it will be available on terms acceptable to the Company.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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REPORT OF INDEPENDENT PUBLIC ACCOUNTANTS

To the Stockholders and Board of Directors of Advanced Energy Industries, Inc.:

We have audited the accompanying consolidated balance sheets of Advanced Energy Industries, Inc. (a Delaware corporation) and subsidiaries as of December 31, 1996 and 1995, and the related consolidated statements of income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 1996. These consolidated financial statements and the schedule referred to below are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements and schedule based on our audits.

We conducted our audits in accordance with generally accepted auditing standards. 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, 1996 and 1995, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 1996, in conformity with generally accepted accounting principles.

Our audit was made for the purpose of forming an opinion on the basic financial statements taken as a whole. The schedule listed in the index of the consolidated financial statements is presented for purposes of complying with the Securities and Exchange Commission's rules and is not part of the basic financial statements. This schedule has been subjected to the auditing procedures applied in our 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.

Denver, Colorado ARTHUR ANDERSEN LLP January 31, 1997.

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS)

	DECEMBER 31,	
	1996	1995
	-----	-----
ASSETS		
CURRENT ASSETS:		
Cash and cash equivalents.....	\$11,231	\$13,332
Accounts receivable --		
Trade (less allowances for doubtful accounts of approximately		
\$242 and \$210 at December 31, 1996 and 1995, respectively).....	15,287	13,540
Related parties.....	541	979
Other.....	288	653
Inventories.....	13,976	16,104
Other current assets.....	1,013	663
Deferred income tax assets, net current.....	1,223	1,031
	-----	-----
Total current assets.....	43,559	46,302
	-----	-----
PROPERTY AND EQUIPMENT, at cost, net of accumulated		
depreciation of \$5,779 and \$3,634 at December 31,		
1996 and 1995, respectively.....	9,500	6,639
	-----	-----
OTHER ASSETS:		
Deposits and other.....	1,139	815
Demonstration and customer service equipment, net of		
accumulated depreciation of \$1,276 and \$902 at December 31,		
1996 and 1995, respectively.....	1,833	1,563
	-----	-----
	2,972	2,378
	-----	-----
Total assets.....	\$56,031	\$55,319
	-----	-----

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

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
(IN THOUSANDS)

	DECEMBER 31,	
	1996	1995
<hr/>		
LIABILITIES AND STOCKHOLDERS' EQUITY		
CURRENT LIABILITIES:		
Accounts payable --		
Trade.....	\$ 2,253	\$ 6,665
Accrued payroll and employee benefits.....	2,396	2,763
Other accrued expenses.....	1,156	749
Customer deposits.....	166	113
Accrued income taxes payable.....	1,485	1,336
Capital lease obligations, current portion.....	315	363
Notes payable, current portion.....	609	564
	<hr/>	<hr/>
Total current liabilities.....	8,380	12,553
	<hr/>	<hr/>
LONG-TERM LIABILITIES:		
Capital lease obligations, net of current portion.....	169	494
Notes payable, net of current portion.....	958	1,063
Deferred income taxes.....	28	122
	<hr/>	<hr/>
	1,155	1,679
	<hr/>	<hr/>
Total liabilities.....	9,535	14,232
	<hr/>	<hr/>
COMMITMENTS AND CONTINGENCIES (Note 11)		
STOCKHOLDERS' EQUITY (Note 1):		
Preferred stock, \$0.001 par value, 1,000 shares		
authorized, none issued and outstanding.....	--	--
Common stock, \$0.001 par value, 30,000 shares authorized;		
21,268 and 21,069 shares issued and outstanding, respectively....	21	21
Additional paid-in capital.....	23,075	22,925
Retained earnings.....	25,065	19,921
Stockholders' notes receivable.....	(1,083)	(1,083)
Deferred compensation.....	(82)	(130)
Cumulative translation adjustment.....	(500)	(567)
	<hr/>	<hr/>
Total stockholders' equity.....	46,496	41,087
	<hr/>	<hr/>
Total liabilities and stockholders' equity.....	\$56,031	\$55,319
	<hr/>	<hr/>

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

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF INCOME
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

YEARS ENDED DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
SALES.....	\$98,852	\$94,708	\$51,857
COST OF SALES.....	62,038	49,314	26,043
	-----	-----	-----
Gross profit.....	36,814	45,394	25,814
	-----	-----	-----
OPERATING EXPENSES:			
Research and development.....	13,760	10,522	5,849
Sales and marketing.....	8,590	6,201	4,658
General and administrative.....	6,253	7,193	5,304
	-----	-----	-----
Total operating expenses.....	28,603	23,916	15,811
	-----	-----	-----
INCOME FROM OPERATIONS.....	8,211	21,478	10,003
	-----	-----	-----
OTHER (EXPENSE) INCOME:			
Interest income.....	455	71	86
Interest expense.....	(168)	(612)	(643)
Foreign currency (loss) gain.....	(351)	(7)	389
Other income (expense), net.....	157	155	(132)
	-----	-----	-----
	93	(393)	(300)
	-----	-----	-----
Net income before income taxes.....	8,304	21,085	9,703
PROVISION FOR INCOME TAXES.....	3,160	7,804	3,740
	-----	-----	-----
NET INCOME.....	\$ 5,144	\$13,281	\$ 5,963
	-----	-----	-----
NET INCOME PER SHARE.....	\$ 0.24	\$ 0.69	\$ 0.32
	-----	-----	-----
WEIGHTED AVERAGE COMMON AND COMMON EQUIVALENT SHARES OUTSTANDING.....	21,666	19,310	18,605
	-----	-----	-----

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

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

FOR THE YEARS ENDED DECEMBER 31, 1996, 1995 AND 1994

	COMMON STOCK		ADDITIONAL	RETAINED	STOCKHOLDERS'	DEFERRED	CUMULATIVE	
	SHARES	AMOUNT	PAID-IN CAPITAL	EARNINGS	NOTES RECEIVABLE	COMPENSATION	TRANSLATION ADJUSTMENT	TOTAL
	-----	-----	-----	-----	-----	-----	-----	-----
BALANCES, December 31, 1993	17,091	\$17	\$ 119	\$ 805	\$ --	\$ --	\$ 70	\$ 1,011
Election of C corporation status....	--	--	58	(58)	--	--	--	--
Warrants issued.....	--	--	1	--	--	--	--	1
Exercise of stock options for cash..	202	--	167	--	--	--	--	167
Equity adjustment from foreign currency translation.....	--	--	--	--	--	--	124	124
Acquisition of minority interest....	--	--	22	(70)	--	--	--	(48)
Net income.....	--	--	--	5,963	--	--	--	5,963
	-----	-----	-----	-----	-----	-----	-----	-----
BALANCES, December 31, 1994.....	17,293	17	367	6,640	--	--	194	7,218
Equity adjustment from foreign currency translation.....	--	--	--	--	--	--	(761)	(761)
Exercise of stock options for cash..	140	1	124	--	--	--	--	125
Exercise of stock options in exchange for stockholders' notes receivable.....	1,236	1	1,082	--	(1,083)	--	--	--
Deferred compensation on stock options issued.....	--	--	142	--	--	(142)	--	--
Amortization of deferred compensation.....	--	--	--	--	--	12	--	12
Sale of common stock through public offering, net of approximately \$2,790 of expenses...	2,400	2	21,210	--	--	--	--	21,212
Net income.....	--	--	--	13,281	--	--	--	13,281
	-----	-----	-----	-----	-----	-----	-----	-----
BALANCES, December 31, 1995.....	21,069	21	22,925	19,921	(1,083)	(130)	(567)	41,087
Equity adjustment from foreign currency translation.....	--	--	--	--	--	--	67	67
Exercise of stock options for cash..	199	--	150	--	--	--	--	150
Amortization of deferred compensation.....	--	--	--	--	--	48	--	48
Net income.....	--	--	--	5,144	--	--	--	5,144
	-----	-----	-----	-----	-----	-----	-----	-----
BALANCES, December 31, 1996.....	21,268	\$21	\$23,075	\$25,065	\$ (1,083)	\$ (82)	\$ (500)	\$46,496
	-----	-----	-----	-----	-----	-----	-----	-----

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

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
(IN THOUSANDS, EXCEPT PER SHARE AMOUNTS)

YEARS ENDED DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
CASH FLOWS FROM OPERATING ACTIVITIES:			
Net income.....	\$ 5,144	\$ 13,281	\$ 5,963
Adjustments to reconcile net income to net cash provided by operating activities--			
Depreciation and amortization.....	2,609	1,543	1,052
Provision for deferred income taxes.....	(286)	(252)	(657)
Amortization of deferred compensation.....	48	12	--
Minority interest.....	--	--	(15)
Loss on disposal of property and equipment.....	41	66	113
Changes in operating assets and liabilities--			
Accounts receivable-trade, net.....	(1,747)	(5,477)	(3,291)
Related parties and other receivables....	803	(889)	147
Inventories.....	2,128	(8,907)	(3,419)
Other current assets.....	(350)	(371)	(149)
Deposits and other.....	(324)	(225)	(316)
Demonstration and customer service equipment.....	(644)	(937)	(154)
Accounts payable, trade.....	(4,412)	3,568	1,210
Accrued payroll and employee benefits....	(367)	725	937
Customer deposits and other accrued expenses.....	460	149	275
Income taxes payable.....	149	1,388	(52)
Accrued payments to S corporation stockholders for income taxes.....	--	--	(477)
	-----	-----	-----
Net cash provided by operating activities.....	3,252	3,674	1,167
	-----	-----	-----
CASH FLOWS FROM INVESTING ACTIVITIES:			
Purchase of property and equipment, net.....	(5,137)	(3,824)	(2,763)
	-----	-----	-----
Net cash used in investing activities.....	(5,137)	(3,824)	(2,763)
	-----	-----	-----
CASH FLOWS FROM FINANCING ACTIVITIES:			
Proceeds from notes payable.....	1,606	31,179	23,185
Repayment of notes payable and capital lease obligations.....	(2,039)	(34,103)	(21,581)
Repayment of subordinated notes to stockholders.....	--	(4,538)	(262)
Sale of common stock, net of expenses.....	--	21,212	--
Proceeds from exercise of stock options and warrants.....	150	125	168
Acquisition of minority interest.....	--	--	(48)
	-----	-----	-----
Net cash (used in) provided by financing activities.....	(283)	13,875	1,462
	-----	-----	-----
EFFECT OF CUMULATIVE TRANSLATION ADJUSTMENT.....	67	(761)	124
	-----	-----	-----
(DECREASE) INCREASE IN CASH AND CASH EQUIVALENTS.....	(2,101)	12,964	(10)
CASH AND CASH EQUIVALENTS, beginning of period..	13,332	368	378
	-----	-----	-----
CASH AND CASH EQUIVALENTS, end of period.....	\$11,231	\$ 13,332	\$ 368
	-----	-----	-----
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES:			
Deferred compensation on stock options issued.....	\$ --	\$ 142	\$ --
	-----	-----	-----
Assets acquired with capital lease.....	\$ --	\$ --	\$ 145
	-----	-----	-----
Exercise of stock options in exchange for stockholders' notes receivable.....	\$ --	\$ 1,083	\$ --
	-----	-----	-----

SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:	-----	-----	-----
Cash paid for interest.....	\$ 168	\$ 604	\$ 618
	-----	-----	-----
Cash paid for income taxes.....	\$ 3,940	\$ 6,668	\$ 4,415
	-----	-----	-----

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

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(1) COMPANY OPERATIONS

Advanced Energy Industries, Inc. (the "Company") was incorporated in Colorado in 1981 and reincorporated in Delaware in 1995. The Company is primarily engaged in the development and production of power conversion and control systems which are used by manufacturers of semiconductors and in industrial thin film manufacturing processes. The Company owns 100% of each of the following subsidiaries: Advanced Energy Japan, K.K. ("AE-Japan"), Advanced Energy, GmbH ("AE-Germany") and Advanced Energy U.K. Limited ("AE-UK"). Effective January 1, 1994, the Company converted its tax status from being an S corporation to a C corporation, and acquired the remaining minority interest in each of these subsidiaries. Additionally, the Company formed Advanced Energy Industries, FSC ("AE-FSC") in 1994.

In September 1995, the Company reincorporated in Delaware with an authorized capitalization of 30,000,000 shares of common stock, \$0.001 par value. Also in September 1995, the Company approved a three for one share common stock split. All share and per share data have been retroactively adjusted in the accompanying consolidated financial statements for the effect of the stock split. Additionally, the Company also authorized 1,000,000 shares of \$0.001 par value preferred stock.

The Company continues to be subject to certain risks similar to other companies in its industry. These risks include the volatility of the semiconductor industry, customer concentration within the industry, technological changes, dependence on the Japanese market, foreign currency risk and competition. A significant change in any of these risk factors could have a material impact on the Company's business.

(2) SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION -- The consolidated financial statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

CASH AND CASH EQUIVALENTS -- For cash flow purposes, the Company considers all cash and investments with an original maturity of 90 days or less to be cash and cash equivalents.

INVENTORIES -- Inventories include costs of materials, direct labor and manufacturing overhead. Inventories are valued at the lower of cost or market, computed on a first-in, first-out basis.

DEMONSTRATION AND CUSTOMER SERVICE EQUIPMENT -- Demonstration and customer service equipment are manufactured products utilized for sales demonstration and evaluation purposes. The Company also utilizes this equipment in its customer service function as replacement and loaner equipment to existing customers. All equipment is held for sale.

The Company depreciates the equipment based on its estimated useful life in the sales and customer service functions. The depreciation is computed based upon a 3-year life.

PROPERTY AND EQUIPMENT -- Property and equipment is stated at cost. Additions, improvements, and major renewals are capitalized. Maintenance, repairs, and minor renewals are expensed as incurred.

Depreciation is provided using straight-line and accelerated methods over three to ten years for machinery and equipment. Amortization of leasehold improvements and leased equipment is provided using the straight-line method over the life of the lease term or the life of the assets, whichever is shorter.

CONCENTRATIONS OF CREDIT RISK -- The Company's revenues generally are concentrated among a small number of customers, the majority of which are in the semiconductor industry. The Company establishes an allowance for doubtful accounts based upon factors surrounding the credit risk of specific customers, historical trends and other information.

WARRANTY POLICY -- The Company estimates the anticipated costs of repairing products under warranty based on the historical average cost of the repairs. The Company offers warranty coverage for its systems for periods ranging from 12 to 24 months after shipment.

CUMULATIVE TRANSLATION ADJUSTMENT -- The functional currency for the Company's foreign operations is the applicable local currency.

The Company records a cumulative translation adjustment from translation of the financial statements of AE-Japan, AE-Germany and AE-UK. This equity account includes the results of translating all balance sheet assets and liabilities at current exchange rates as of the balance sheet date, and the statements of operations at the average exchange rates during the respective year.

The Company recognizes gain or loss on foreign currency transactions which are not considered to be of a long-term investment nature. The Company recognized a (loss) gain on foreign currency transactions of \$(351,000), \$(7,000) and \$389,000 for the years ended December 31, 1996, 1995 and 1994, respectively.

REVENUE RECOGNITION -- The Company recognizes revenue when products are shipped.

INCOME TAXES -- The Company accounts for income taxes in accordance with Statement of Financial Accounting Standards ("SFAS") No. 109, "Accounting for Income Taxes." In accordance with SFAS No. 109, deferred tax assets and liabilities are recognized for temporary differences between the tax basis and financial reporting basis of assets and liabilities, computed at current tax rates.

NET INCOME PER COMMON AND COMMON EQUIVALENT SHARE -- Net income per share is computed based on net income attributable to common stock and the weighted average number of common and common equivalent shares outstanding during each of the periods since the Company became a C corporation.

All share and income per share data have been adjusted for all periods to reflect the three for one split of common shares approved by the Company's stockholders in September 1995 (Note 1).

ESTIMATES AND ASSUMPTIONS -- The preparation of the Company's consolidated financial statements in conformity with generally accepted accounting principles requires the Company's management to make estimates and assumptions that affect the amounts reported and disclosed in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates.

ACCOUNTING PRONOUNCEMENT -- In March 1995, the Financial Accounting Standards Board ("FASB") issued SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of." SFAS No. 121 requires that long-lived assets and certain identifiable intangibles to be held and used by an entity be reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. The adoption of SFAS No. 121 in 1996 did not have a significant impact on the Company's consolidated financial condition and results of operations.

(3) INITIAL PUBLIC OFFERING

In November 1995, the Company closed on the initial public offering of its common stock. In connection with the offering, 2,400,000 shares of previously unissued common shares were sold at a price of \$10 per share, providing gross proceeds of \$24,000,000, less \$2,790,000 in offering costs.

(4) ACCOUNTS RECEIVABLE, TRADE

Accounts receivable, trade consisted of the following:

DECEMBER 31,

	1996	1995
	(IN THOUSANDS)	
Domestic.....	\$ 9,944	\$ 8,825
Foreign.....	5,585	4,925
Allowance for doubtful accounts..	(242)	(210)
	-----	-----
	\$15,287	\$13,540
	-----	-----
	-----	-----

(5) INVENTORIES

Inventories consisted of the following:

DECEMBER 31,

	1996	1995
	-----	-----
	(IN THOUSANDS)	
Parts and raw materials.....	\$11,149	\$11,104
Work in process.....	1,122	1,936
Finished goods.....	1,705	3,064
	-----	-----
	\$13,976	\$16,104
	-----	-----
	-----	-----

(6) PROPERTY AND EQUIPMENT

Property and equipment consisted of the following:

DECEMBER 31,

	1996	1995
	-----	-----
	(IN THOUSANDS)	
Machinery and equipment.....	\$ 5,708	\$ 3,974
Computers and communication.....	4,793	3,693
Furniture and fixtures.....	1,996	1,211
Vehicles.....	140	154
Leasehold improvements.....	2,642	1,241
	-----	-----
	15,279	10,273
Less -- accumulated depreciation..	(5,779)	(3,634)
	-----	-----
	\$ 9,500	\$ 6,639
	-----	-----
	-----	-----

Included in the cost of property and equipment above is equipment obtained through capitalized leases. The net book value of capitalized leased equipment included in property and equipment above was as follows at December 31, 1996 and 1995:

DECEMBER 31,

	1996	1995
	-----	-----
	(IN THOUSANDS)	
Machinery and equipment.....	\$243	\$426

Computers and communication.....	62	245
Furniture and fixtures.....	14	29
	----	----
	\$319	\$700
	----	----
	----	----

Depreciation of assets acquired under capitalized leases is included in depreciation expense.

(7) NOTES PAYABLE

	DECEMBER 31,	
	1996	1995
(IN THOUSANDS)		
Term loan of \$1,500,000, commencing December 5, 1996, principal is due monthly in thirty-six equal payments of \$41,667 plus accrued interest at bank's prime rate plus 0.25% (8.5% at December 31, 1996). Collateralized by all corporate fixed assets except those leased. (a).....	\$1,458	\$ --
Revolving line of credit of \$10,000,000, maturing November 5, 1997. Interest at bank's prime rate or the LIBOR rate plus 0.25%. Loan covenants provide certain financial restrictions related to working capital, leverage, net worth and profitability. (b).....	--	--
Line of credit to purchase equipment of \$2,000,000. Interest was due monthly at the bank's prime rate plus 0.75% (9.25% at December 31, 1995). The final draw period for this line expired on July 31, 1995.....	--	1,560
Other.....	109	67
	1,567	1,627
Less -- current portion.....	(609)	(564)
	\$ 958	\$1,063

(a) The Company entered into an agreement effective October 31, 1996, providing a \$2.5 million line of credit to purchase equipment. The Company has the option to convert borrowings to a three year term loan bearing interest at the bank's prime rate plus 0.25%. During 1996, the Company borrowed \$1,500,000 under the line of credit and converted this amount to a term loan with a balance of \$1,458,000 as of December 31, 1996.

(b) The Company has the option to convert up to \$3 million of borrowings under its \$10 million line of credit to a three year term loan bearing interest at prime plus 0.5%.

Annual maturities of notes payable outstanding at December 31, 1996, described above are as follows:

Years ended December 31 --		(IN THOUSANDS)
1997.....	\$	609
1998.....		500
1999.....		458

		\$1,567

(8) SUBORDINATED NOTES PAYABLE TO STOCKHOLDERS

Effective December 31, 1993, the Company distributed \$4,800,000 of accumulated earnings of the Company to its majority stockholders in the form of notes payable. During 1995, the Company repaid the subordinated notes payable through proceeds received from its initial public offering (Note 3).

(9) INCOME TAXES

Effective January 1, 1994, the Company terminated its status as an S corporation, electing to be taxed as a C corporation. As of that date, the Company was required to recognize in income from continuing operations the net deferred tax assets and liabilities for temporary differences at the date it became a taxable enterprise. The resulting net deferred tax asset recognized in income from continuing operations as part of the provision for income taxes for 1994 in the accompanying consolidated financial statements at January 1, 1994 was approximately \$446,000.

For the years ended December 31, 1996 and 1995, the provision for income taxes consists of an amount for taxes currently payable and a provision for taxes deferred to future periods.

The provision (benefit) for income taxes for the years ended December 31, 1996, 1995 and 1994, is as follows:

DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
	(IN THOUSANDS)		
Federal.....	\$2,744	\$5,827	\$2,534
State and local.....	568	918	646
Foreign taxes.....	(152)	1,059	560
	-----	-----	-----
	\$3,160	\$7,804	\$3,740
	-----	-----	-----
Current.....	\$3,446	\$8,056	\$4,397
Deferred.....	(286)	(252)	(657)
	-----	-----	-----
	\$3,160	\$7,804	\$3,740
	-----	-----	-----
	-----	-----	-----

The following reconciles the Company's effective tax rate to the federal statutory rate for the years ended December 31, 1996, 1995 and 1994:

DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
	(IN THOUSANDS)		
Income tax expense per federal statutory rate..	\$2,823	\$7,397	\$3,299
State income taxes, net of federal deduction...	375	596	427
Foreign sales corporation.....	(108)	(208)	(23)
Nondeductible expenses.....	77	49	43
Effect of foreign taxes.....	(168)	316	444
Change in tax status from S to C corporation...	--	--	(446)
Tax credits.....	(182)	(260)	--
Other.....	343	(86)	(4)
	-----	-----	-----
	\$3,160	\$7,804	\$3,740
	-----	-----	-----
	-----	-----	-----

The Company's deferred income taxes are summarized as follows:

	DECEMBER 31, 1996	CHANGE	DECEMBER 31, 1995
	-----	-----	-----
	(IN THOUSANDS)		
Deferred tax assets:			
Employee bonuses.....	\$ -	\$(218)	\$ 218
Warranty reserve.....	175	98	77
Bad debt reserve.....	75	17	58
Vacation accrual.....	326	(34)	360
Obsolete and excess inventory.....	574	270	304
Other.....	73	59	14
	-----	-----	-----
	1,223	192	1,031
	-----	-----	-----
Deferred tax liabilities:			
Accumulated depreciation.....	(28)	94	(122)
	-----	-----	-----
Net deferred income tax assets.....	\$1,195	\$ 286	\$ 909
	-----	-----	-----
	-----	-----	-----

The domestic versus foreign component of the Company's net income before income taxes at December 31, 1996, 1995 and 1994, was as follows:

DECEMBER 31,

	1996	1995	1994
	-----	-----	-----
	(IN THOUSANDS)		
Domestic.....	\$8,255	\$18,969	\$8,920
Foreign.....	49	2,116	783
	-----	-----	-----

\$8,304	\$21,085	\$9,703
-----	-----	-----
-----	-----	-----

(10) RETIREMENT PLAN

The Company has a 401(k) Profit Sharing Plan which covers all full-time employees who have completed six months of full-time continuous service and are age eighteen or older. Participants may defer up to 20% of their gross pay up to a maximum limit determined by law (\$9,500 during 1996). Participants are immediately vested in their contributions.

The Company may make discretionary contributions based on corporate financial results for the fiscal year. The Company may also make discretionary matching contributions to employee accounts up to \$100 per employee annually. The Company's total contributions to the plan were approximately \$45,000, \$537,000 and \$325,000 for the years ended December 31, 1996, 1995 and 1994, respectively. Vesting in the profit sharing contribution account (company contribution) is based on years of service, with a participant fully vested after five years of credited service.

(11) COMMITMENTS AND CONTINGENCIES

CAPITAL LEASES

The Company finances a substantial portion of its property and equipment (Note 6) under capital lease obligations at interest rates ranging from 7.63% to 8.66%. The future minimum lease payments under capitalized lease obligations as of December 31, 1996, are as follows:

	(IN THOUSANDS)
1997.....	\$ 344
1998.....	154
1999.....	24

Total minimum lease payments.....	522
Less -- amount representing interest.....	(38)
Less -- current portion.....	(315)

	\$ 169

OPERATING LEASES

The Company has various operating leases for automobiles, equipment, and office and production space (Note 13). Lease expense under operating leases was approximately \$1,788,000, \$1,184,000 and \$858,000 for the years ended December 31, 1996, 1995 and 1994, respectively.

The future minimum rental payments required under noncancelable operating leases as of December 31, 1996, are as follows:

	(IN THOUSANDS)
1997.....	\$ 1,776
1998.....	1,620
1999.....	1,562
2000.....	1,406
2001.....	1,341
Thereafter.....	8,766

	\$16,471

GUARANTEE

In September 1996, the Company extended a guarantee for a \$1,000,000 bank term loan for an additional year, entered into by an entity that serves as a supplier to the Company. An officer of the Company serves as a director of such entity.

(12) FOREIGN OPERATIONS

The Company operates in a single industry segment with operations in the U.S., Japan and Europe. The following is a summary of the Company's foreign operations:

	YEARS ENDED DECEMBER 31,		
	1996	1995	1994
	(IN THOUSANDS)		
Sales:			
Originating in Japan to unaffiliated customers.....	\$ 6,467	\$ 11,997	\$ 7,803
Originating in Europe to unaffiliated customers.....	8,023	6,237	3,950
Originating in U.S. and sold to unaffiliated foreign customers.....	9,506	9,018	5,467
Originating in U.S. and sold to domestic customers.....	74,856	67,456	34,637
Transfers between geographic areas.....	10,496	11,524	8,226
Intercompany eliminations.....	(10,496)	(11,524)	(8,226)
	\$ 98,852	\$ 94,708	\$51,857
Income (loss) from operations:			
Japan.....	\$ (920)	\$ 1,094	\$ 554
Europe.....	1,056	953	(51)
U.S.	8,383	19,448	10,075
Intercompany eliminations.....	(308)	(17)	(575)
	\$ 8,211	\$ 21,478	\$10,003
Identifiable assets:			
Japan.....	\$ 6,445	\$ 6,342	\$ 4,286
Europe.....	3,788	2,502	1,813
U.S.	54,736	54,415	22,984
Intercompany eliminations.....	(8,938)	(7,940)	(5,934)
	\$ 56,031	\$ 55,319	\$23,149

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

(13) RELATED PARTY TRANSACTIONS

During 1994, a limited liability partnership consisting of certain officers of the Company and other individuals entered into an agreement to purchase an office and manufacturing facility. The partnership remodeled the office and manufacturing facility and leased the facility to the Company under an operating lease. During 1994, the Company provided "bridge" financing in the amount of \$3,000,000 to the partnership to purchase and remodel the building. The Company moved into this facility during 1994. The Company recognized \$86,000 of interest income related to this transaction during 1994. The partnership repaid the bridge loan in the third quarter 1994 when it obtained permanent financing for the facility. This lease expires in 2009 with a monthly payment of approximately \$39,000. In September 1995, the Company entered into a new lease agreement with this partnership for a building being constructed adjacent to the Company's executive offices. The lease relating to this facility expires in February 2011 with monthly rent expense of approximately \$46,000.

The Company also leases other office and production space from another limited liability partnership consisting of certain officers of the Company and other individuals. The lease relating to this space expires in 2002 with a monthly payment of approximately \$23,000.

Approximately \$1,364,000, \$800,000 and \$600,000 was charged to rent expense attributable to these leases for the years ended December 31, 1996, 1995 and 1994, respectively.

The Company leases, for business purposes, a condominium owned by a partnership of certain stockholders. The Company paid the partnership \$36,000 for each of the years ended December 31, 1996, 1995 and 1994, relating to this lease.

Included in AE-Japan's accounts receivable at December 31, 1996, 1995 and 1994, is approximately \$394,000, \$953,000 and \$500,000, respectively, due from an entity that is controlled by the president of AE-Japan. This entity also accounted for approximately 3%, 3% and 4% of consolidated sales during 1996, 1995 and 1994, respectively.

On June 29, 1995, certain stockholders of the Company exercised options to purchase shares of the Company's common stock for an aggregate exercise price of \$1,083,000. In exchange for the stock the Company received notes receivable in the amount of the exercise price. These notes receivable bear interest at 6.83% which is payable annually and the principal balance is due in June 2000. As of December 31, 1996, the Company has approximately \$110,000 of accrued interest income related to these notes included in receivables from related parties.

(14) MAJOR CUSTOMERS

The Company's sales to major customers (purchases in excess of 10% of total sales) are to entities which are primarily manufacturers of semiconductor equipment and, for the years ended December 31, 1996, 1995 and 1994 are as follows:

	<u>DECEMBER 31,</u>		
	1996	1995	1994
	----	----	----
Customer A.....	27%	24%	21%
Customer B.....	20%	17%	17%
	--	--	--
	47%	41%	38%
	--	--	--
	--	--	--

(15) STOCK PLANS

EMPLOYEE STOCK OPTION PLAN -- During 1993, the Company adopted an Employee Stock Option Plan (the "Employee Option Plan") which was amended and restated in January and September 1995. The Employee Option Plan allows issuance of incentive stock options, nonstatutory options, and stock purchase rights. The exercise price of incentive stock options shall not be less than 100% of the stock's fair market value on the date of grant. The exercise price of nonstatutory stock options shall not be less than 50% of the stock's fair market value on the date of grant. Options issued in 1996, 1995 and 1994 were issued at 100% of fair market value, as determined by the Company, with typical vesting of one-third at the end of one year, and quarterly thereafter until fully vested after three years. Under the Employee Option Plan, the Company has the discretion to accelerate the vesting period. The options are exercisable for ten years from the date of grant. The Company has reserved 3,500,000 shares of common stock for the issuance of stock under the Employee Option Plan which terminates in June 2003.

In connection with the grant of certain stock options on June 30, 1995, the Company recorded \$142,000 of deferred compensation for the difference between the deemed fair value for accounting purposes and the option price as determined by the Company at the date of grant. This amount is presented as a reduction of stockholders' equity and will be amortized over the 3 year vesting period of the related stock options.

In addition, the Company offered to employees the right to purchase 11,000 warrants for approximately \$0.02 each in fiscal 1994. Each warrant permitted employees to purchase one share of common stock at fair market value, as determined by the Company, at the time the warrant was granted. The warrants were exercised during 1994. There are no warrants outstanding as of December 31, 1996 and 1995.

EMPLOYEE STOCK PURCHASE PLAN -- In September 1995, stockholders approved an Employee Stock Purchase Plan (the "Stock Purchase Plan") covering an aggregate of 200,000 shares of common stock. Employees are eligible to participate in the Stock Purchase Plan if employed by the Company for at least 20 hours per week during at least five months per calendar year. Participating employees may have up to 15% (subject to a 5% limitation set by the Company's board of directors for fiscal 1996) of their earnings

or a maximum of \$1,250 per six month period withheld pursuant to the Stock Purchase Plan. Common stock purchased under the Stock Purchase Plan will be equal to 85% of the lower of the fair market value on the commencement date of each offering period or the relevant purchase date. During 1996, employees purchased an aggregate of 11,572 shares under the Stock Purchase Plan and the Company recognized approximately \$11,000 in compensation expense.

OUTSIDE DIRECTOR STOCK OPTION PLAN -- In September 1995, the Company adopted the 1995 Non-Employee Directors Stock Option Plan (the "Directors Plan") covering 50,000 shares of common stock. The Directors Plan provides for automatic grants of nonstatutory stock options to directors of the Company who are not employees of the Company ("Outside Directors"). Pursuant to the Directors Plan, upon becoming a director of the Company, each Outside Director will be granted an option to purchase 7,500 shares of common stock. Such options will be immediately exercisable as to 2,500 shares of common stock, and will vest as to 2,500 shares of common stock on each of the second and third anniversaries of the grant date. On each anniversary of the date on which a person became an Outside Director, an option for an additional 2,500 shares is granted. Such additional options vest on the third anniversary of the date of grant. Options will expire ten years after the grant date, and the exercise price of the options will be equal to the fair market value of the common stock on the grant date. The Directors Plan terminates September 2005.

The following summarizes the activity relating to options and warrants for the years ended December 31, 1996, 1995 and 1994:

	1996		1995		1994	
	(In thousands, except per share amounts)					
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
Stock options:						
Incentive stock options --						
Options outstanding at beginning of period.....	729	\$ 2.62	1,904	\$ 0.95	1,778	\$0.83
Granted.....	751	5.10	212	6.40	138	2.36
Exercised.....	(199)	8.51	(1,371)	3.53	(3)	2.23
Terminated.....	(440)	6.92	(16)	1.69	(9)	0.99
Options outstanding at end of period.....	841	3.02	729	2.62	1,904	0.95
Options exercisable at end of period.....	326	1.51	391	0.88	1,616	0.83
Weighted-average fair value of options granted during the period.....	\$3.14		\$ 1.84		N/A	
Price range of outstanding options.....	\$0.83 - \$11.05		\$0.83 - \$11.05		\$0.83 - \$2.53	
Price range of options terminated.....	\$0.83 - \$11.05		\$0.83 - \$ 3.11		\$0.83 - \$2.19	
Outside directors stock options--						
Options outstanding at beginning of period...	15	\$11.05	--	\$ --	--	\$ --
Granted.....	5	6.13	15	11.05	--	--
Options outstanding at end of period.....	20	9.82	15	11.05	--	--
Options exercisable at end of period.....	5	11.05	5	11.05	--	--
Weighted-average fair value of options granted during the period.....	\$4.68		\$ 3.19		N/A	
Price range of outstanding options.....	\$6.13 - \$11.05		\$11.05		--	
Warrants--						
Warrants outstanding at beginning of period.....	--		7	\$ 3.48	200	\$0.83
Granted.....	--		--	--	11	2.22
Exercised.....	--		(6)	2.27	(198)	1.82
Terminated.....	--		(1)	3.99	(6)	0.88
Warrants outstanding at end of period.....	--		--	--	7	3.48
Price range of stock issuable under warrants.....	\$--		\$ --		\$0.83 - \$2.53	
Price range of warrants terminated.....	\$--		\$1.41 - \$ 2.53		\$0.83 - \$2.19	

Statement of Financial Accounting Standards No. 123, "Accounting for Stock-Based Compensation" ("SFAS No. 123"), defines a fair value based method of accounting for employee stock options or similar equity instruments. However, SFAS No. 123 allows the continued measurement of compensation cost for such plans using the intrinsic value based method prescribed by APB Opinion No. 25, "Accounting for Stock Issued to Employees" ("APB No. 25"), provided that pro forma disclosures are made of net income or loss and net income or loss per share, assuming the fair value based method of SFAS No. 123 had been applied. The Company has elected to account for stock-based compensation plans under APB No. 25, under which no compensation expense is recognized.

For SFAS No. 123 purposes, the fair value of each option grant is estimated on the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	1996 -----	1995 -----
Risk-free interest rates	6.57%	6.16%
Expected dividend yield rates	0.00%	0.00%
Expected lives	4 years	4 years
Expected volatility	110.16%	22.57%

The total fair value of options granted was computed to be approximately \$1,317,000 and \$420,000 for the years ended December 31, 1996 and 1995, respectively. These amounts are amortized ratably over the vesting period of the options. Cumulative compensation cost recognized in pro forma net income or loss with respect to options that are forfeited prior to vesting is adjusted as a reduction of pro forma compensation expense in the period of forfeiture. Pro forma stock-based compensation, net of the effect of forfeitures and tax, was approximately \$47,000 and \$19,000 for 1996 and 1995, respectively.

Had compensation cost for these plans been determined consistent with SFAS No 123, the Company's net income would have been reduced to the following pro forma amounts:

	1996 -----	1995 -----
	(In thousands, except per share data)	
Net Income:		
As reported	\$5,144	\$13,281
Pro forma	5,097	13,262
Earnings Per Share:		
As reported	\$ 0.24	\$ 0.69
Pro forma	0.24	0.69

Because the SFAS No. 123 method of accounting has not been applied to options granted prior to January 1, 1995, the resulting pro forma compensation cost may not be representative of that to be expected in future years.

The following table summarizes information about the stock options outstanding at December 31, 1996:

Year Granted	Range of Exercise Prices	Number Outstanding	Options Outstanding		Options Exercisable	
			Weighted- Average Remaining Contractual Life	Weighted- Average Exercise Price	Number Exercisable	Weighted- Average Exercise Price
1993 - 1994	\$0.83 to \$ 2.53	320,000	6.9 years	\$1.30	279,000	\$1.13
1995	\$2.57 to \$11.05	108,000	8.5 years	\$5.03	51,000	\$4.54
1996	\$3.88 to \$ 8.75	433,000	9.8 years	\$4.11	1,000	\$3.88
		861,000	8.5 years	\$3.18	331,000	\$1.66
		-----	-----	-----	-----	-----
		-----	-----	-----	-----	-----

ADVANCED ENERGY INDUSTRIES, INC. AND SUBSIDIARIES

SCHEDULE II-- VALUATION AND QUALIFYING ACCOUNTS

	BALANCE AT BEGINNING OF PERIOD	ADDITIONS CHARGED TO EXPENSE	DEDUCTIONS	BALANCE AT END OF PERIOD
	-----	-----	-----	-----
	(IN THOUSANDS)			
Year ended December 31, 1994:				
Inventory obsolescence reserve.....	\$700	\$ 164	\$ 140	\$ 724
Allowance for doubtful accounts.....	118	69	53	134
	----	-----	-----	-----
	\$818	\$ 233	\$ 193	\$ 858
	----	-----	-----	-----
Year ended December 31, 1995:				
Inventory obsolescence reserve.....	\$724	\$ 185	\$ 120	\$ 789
Allowance for doubtful accounts.....	134	76	--	210
	----	-----	-----	-----
	\$858	\$ 261	\$ 120	\$ 999
	----	-----	-----	-----
Year ended December 31, 1996:				
Inventory obsolescence reserve.....	\$789	\$2,702	\$1,966	\$1,525
Allowance for doubtful accounts.....	210	35	3	242
	----	-----	-----	-----
	\$999	\$2,737	\$1,969	\$1,767
	----	-----	-----	-----

ITEM 9. DISAGREEMENTS ON ACCOUNTING AND FINANCIAL DISCLOSURES

Not applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF THE REGISTRANT

In accordance with General Instruction G(3), the information required by this item (with the exception of certain information pertaining to executive officers, which is included in Part I hereof) has been omitted and is incorporated by reference to the Registrant's definitive Proxy Statement (the "Proxy Statement") relating to its 1997 Annual Meeting of Stockholders.

ITEM 11. EXECUTIVE COMPENSATION

The Proxy Statement will be filed not later than 120 days after the end of the fiscal year with the Securities and Exchange Commission. The information set forth therein under "Executive Compensation and Other Information" is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT

Information required is set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" in the Proxy Statement and is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS

Information required is set forth under the caption "Certain Transactions" in the Proxy Statement and is incorporated herein by reference.

PART IV

ITEM 14. EXHIBITS, FINANCIAL STATEMENT SCHEDULES AND REPORTS ON FORM 8-K

(a) (i) Financial Statements:

Report of Independent Public Accountants	33
Consolidated Financial Statements:	
Balance Sheets at December 31, 1996 and 1995	34
Statements of Income for each of the three years in the period ended December 31, 1996	36
Statements of Stockholders' Equity for each of the three years in the period ended December 31, 1996	37
Statements of Cash Flows for each of the three years in the period ended December 31, 1996	38
Notes to Consolidated Financial Statements	39
(ii) Financial Statement Schedules for each of the three years in the period ended December 31, 1996	
Schedule II--Valuation and Qualifying Accounts	49
(iii) Exhibits:	
The Registrant's Restated Certificate of Incorporation (1)	
The Registrant's By-laws (1)	
Form of Specimen Certificate for Registrant's Common Stock (1)	
Master Purchase Order and Sales Agreement between Applied Materials, Inc. and Registrant effective January 1, 1990 (1) **	
Purchase Order and Sales Agreement between Lam Research Corporation and Registrant effective July 1, 1993, as amended on September 16, 1995 (1) **	
Purchase Agreement between Eaton Corporation and Registrant effective November 1, 1995 **	
1995 Stock Option Plan, as amended and restated on September 20, 1995 (1) *	
Employee Stock Purchase Plan	
1995 Non-employee Directors' Stock Option Plan (1)	
Lease dated March 14, 1994, as amended, between Sharp Point Properties, L.L.C., and Registrant for property in Fort Collins, Colorado (1)	
Lease dated May 19, 1995 between Sharp Point Properties, L.L.C., and Registrant for a building under construction in Fort Collins, Colorado (1)	
Lease dated June 12, 1984, as amended on June 11, 1992, between Prospect Park East Partnership, a Colorado General Partnership and Registrant for property in Fort Collins, Colorado (1)	
Silicon Valley Bank Business Loan Agreement dated May 19, 1992, as amended, between Silicon Valley Bank and Registrant (1)	
Amended and Restated Loan and Security Agreement, effective as of November 17, 1995 by and between Silicon Valley Bank and Registrant (1)	
Equipment Line of Credit dated July 11, 1994 between Silicon Valley Bank and Registrant (1)	
Master equipment lease dated July 15, 1993, as amended, between KeyCorp Leasing Ltd. and Registrant (1)	
Master Lease Purchase Agreement dated January 20, 1989, as amended, between MetLife Capital Corporation and Registrant (1)	
Lease Purchase Agreement dated June 11, 1992 between MetLife Capital Corporation and Registrant (1)	

(b) No reports on Form 8-K were required to be filed by the Registrant during the fourth quarter of the year ended December 31, 1996.

* Compensatory plan ** Portions of these documents have been omitted in accordance with an order by the Commission granting confidential treatment. Such omitted material has been filed separately with the Commission.

(1) Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 33-97188) filed with the Commission on September 20, 1995, as amended.

SIGNATURES

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

ADVANCED ENERGY INDUSTRIES, INC.

(Registrant)

/s/ DOUGLAS S. SCHATZ

Douglas S. Schatz
President

Each person whose signature appears below hereby appoints Douglas S. Schatz and Richard P. Beck, and each of them severally, acting alone and without the other, his true and lawful attorney-in-fact with authority to execute in the name of each such person, and to file with the Securities and Exchange Commission, together with any exhibits thereto and other documents therewith, any and all amendments to this Annual Report on Form 10-K necessary or advisable to enable the registrant to comply with the Securities Exchange Act of 1934, as amended, and any rules, regulations and requirements of the Securities and Exchange Commission in respect thereof, which amendments may make such other changes in the Annual Report on Form 10-K as the aforesaid attorney-in-fact deems appropriate.

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

Signatures	Title	Date
/s/ Douglas S. Schatz ----- Douglas S. Schatz	Chairman of the Board, President and Chief Executive Officer (Principal Executive Officer)	March 6, 1997
/s/ Richard P. Beck ----- Richard P. Beck	Vice President, Chief Financial Officer, Assistant Secretary and Director (Principal Financial Officer and Principal Accounting Officer)	March 6, 1997
/s/ G. Brent Backman ----- G. Brent Backman	Vice President, Special Projects, Assistant Secretary and Director	March 9, 1997
/s/ Elwood Spedden ----- Elwood Spedden	Director	March 6, 1997
----- Hollis J. Caswell	Director	March __, 1997

ARTICLE 5

MULTIPLIER: 1,000

PERIOD TYPE	YEAR
FISCAL YEAR END	DEC 31 1996
PERIOD START	JAN 01 1996
PERIOD END	DEC 31 1996
CASH	11,231
SECURITIES	0
RECEIVABLES	16,358
ALLOWANCES	(242)
INVENTORY	13,976
CURRENT ASSETS	43,559
PP&E	15,279
DEPRECIATION	(5,779)
TOTAL ASSETS	56,031
CURRENT LIABILITIES	8,380
BONDS	0
PREFERRED MANDATORY	0
PREFERRED	0
COMMON	21
OTHER SE	46,475
TOTAL LIABILITY AND EQUITY	56,031
SALES	98,852
TOTAL REVENUES	98,852
CGS	62,038
TOTAL COSTS	62,038
OTHER EXPENSES	28,603
LOSS PROVISION	0
INTEREST EXPENSE	168
INCOME PRETAX	8,304
INCOME TAX	3,160
INCOME CONTINUING	5,144
DISCONTINUED	0
EXTRAORDINARY	0
CHANGES	0
NET INCOME	5,144
EPS PRIMARY	0.24
EPS DILUTED	0.24

End of Filing

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