

ADVANCED ENERGY INDUSTRIES INC

FORM 424B3

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Industry	Electronic Instr. & Controls
Sector	Technology
Fiscal Year	12/31

2,100,000 Shares

Advanced Energy Industries, Inc.

Common Stock

This prospectus relates to the public offering, which is not being underwritten, of 2,100,000 shares of our common stock by the selling stockholders identified in this prospectus. The prices at which the stockholders may sell the shares will be determined by the prevailing market for the shares or in negotiated transactions. We will not receive any proceeds from the sale of shares offered under this prospectus.

Our common stock is traded on the Nasdaq National Market under the symbol "AEIS." The last reported sale price on October 27, 2000 was \$16.70.

SEE "RISK FACTORS" BEGINNING ON PAGE 4 OF THIS PROSPECTUS TO READ ABOUT IMPORTANT FACTORS YOU SHOULD CONSIDER BEFORE PURCHASING SHARES OF THE COMMON STOCK.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY OTHER REGULATORY BODY HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR PASSED UPON THE ACCURACY OR ADEQUACY OF THIS PROSPECTUS. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

The date of this prospectus is October 30, 2000

THE INFORMATION IN THIS PRELIMINARY PROSPECTUS IS NOT COMPLETE AND MAY BE CHANGED. THESE SECURITIES MAY NOT BE SOLD UNTIL THE REGISTRATION IS FILED WITH THE SECURITIES AND EXCHANGE COMMISSION IS EFFECTIVE. THIS PRELIMINARY PROSPECTUS IS NOT AN OFFER TO SELL NOR DOES IT SEEK AN OFFER TO BUY SECURITIES IN ANY JURISDICTION WHERE THE OFFER OR SALE IS NOT PERMITTED.

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We have not authorized any person to make a statement that differs from what is in this prospectus. If any person does make a statement that differs from what is in this prospectus, you should not rely on it. This prospectus is not an offer to sell, nor is it seeking an offer to buy, these securities in any state in which the offer or sale is not permitted. The information in this prospectus is complete and accurate as of its date, but the information may change after that date.

ADVANCED ENERGY INDUSTRIES, INC.

OVERVIEW

We design, manufacture and support power conversion and control systems. These systems are important components of industrial manufacturing equipment that modifies surfaces or deposits or etches thin film layers on computer chips, CDs, flat panel displays such as computer screens, DVDs, windows, eyeglasses, solar panels and other products. Our systems refine, modify and control the raw electrical power from a utility and convert it into power that is uniform and predictable. This allows manufacturing equipment to produce and deposit very thin films at an even thickness on a mass scale.

The ongoing demand for improvements in the performance, capacity and speed of computer chips, flat panel displays and other products drives manufacturers to develop more advanced technology to produce thinner, more consistent and more precise layers of film. Thin film production processes enable manufacturers to control and alter the electrical, magnetic, optical and mechanical characteristics of materials. Our systems are used primarily in plasma-based thin film production processes. Plasma is commonly created by applying enough electrical force to a gas at reduced pressure to separate electrons from their parent atoms. Plasma-based process technology was developed to address the limitations of wet chemistry and thermal process technologies and to enable new applications. Plasma-based processes are inherently more controllable and more accurate for many applications than other thin film production processes because of the electrical characteristics of plasma.

We market and sell our systems primarily to large, global original equipment manufacturers of semiconductor, flat panel display, data storage and other industrial thin film manufacturing equipment. We have sold our systems worldwide to more than 100 OEMs and directly to more than 500 end-users. Our principal customers include Applied Materials, Balzers, Eaton, Lam Research, Novellus, Singulus and ULVAC. The semiconductor capital equipment industry accounted for approximately 61% of our total sales in 1997, 52% in 1998, 65% in 1999 and 70% in the first nine months of 2000.

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

RECENT DEVELOPMENTS

This prospectus relates to the shares of Advanced Energy common stock issued to the former shareholders of Sekidenko, Inc. in connection with our acquisition of Sekidenko on August 18, 2000. We now operate Sekidenko, which manufactures optical fiber temperature measurement and control solutions for the semiconductor and related industries, as a wholly owned subsidiary.

In April 2000, we acquired Noah Holdings, Inc., a privately-held manufacturer of solid state temperature control systems used to control process temperatures during semiconductor manufacturing.

In July 2000, we entered into a merger agreement to acquire Engineering Measurements Company, a publicly-held manufacturer of flowmeters, for 900,000 shares of our common stock. In October 2000, the agreement was amended and restated so that we will now pay approximately \$30 million in cash for all of the capital stock of Engineering Measurements. Completion of the Engineering Measurements acquisition may not occur since the acquisition is subject to several conditions, including approval by the shareholders of Engineering Measurements.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the risks and uncertainties described below and the other information in this prospectus and in the documents incorporated by reference before deciding whether to purchase our common stock.

RISKS RELATED TO OUR BUSINESS

OUR QUARTERLY OPERATING RESULTS ARE SUBJECT TO SIGNIFICANT FLUCTUATIONS, WHICH COULD NEGATIVELY IMPACT OUR FINANCIAL CONDITION, RESULTS OF OPERATIONS AND STOCK PRICE.

Our quarterly operating results have fluctuated significantly and we expect them to continue to experience significant fluctuations. Downward fluctuations in our quarterly results have historically resulted in decreases in the price of our common stock. Quarterly operating results are affected by a variety of factors, many of which are beyond our control. These factors include:

- changes or slowdowns in economic conditions in the semiconductor and semiconductor capital equipment industries and other industries in which our customers operate;
- the timing and nature of orders placed by major customers;
- customer cancellations of previously placed orders and shipment delays;
- pricing competition from our competitors;
- component shortages resulting in manufacturing delays;
- changes in customers' inventory management practices;
- the introduction of new products by us or our competitors; and
- costs incurred by responding to specific feature requests by customers.

In addition, companies in the semiconductor capital equipment industry and other electronics companies experience pressure to reduce costs. Our customers exert pressure on us to reduce our prices, shorten delivery times and extend payment terms. These pressures could lead to significant changes in our operating results from quarter to quarter.

In the past, we have incurred charges and costs related to events such as acquisitions, restructuring and storm damages. The occurrence of similar events in the future could adversely affect our operating results in the applicable quarter.

Our operating results in one or more future quarters may fall below the expectations of analysts and investors. In those circumstances, the trading price of our securities would likely decrease.

THE MARKET PRICE OF OUR COMMON STOCK IS HIGHLY VOLATILE, WHICH COULD LEAD TO LOSSES FOR INDIVIDUAL INVESTORS AND COSTLY SECURITIES CLASS ACTION LITIGATION.

The market for technology stocks, including our common stock, has experienced significant price and volume fluctuations. These fluctuations often have been unrelated or disproportionate to the operating performance of the companies. From our IPO in November 1995 through October 27, 2000, the closing prices of our common stock on the Nasdaq National Market have ranged from \$3.50 to \$73.25. The market for our common stock likely will continue to be subject to fluctuations. Many factors could cause the trading price of our common stock to fluctuate substantially, including the following:

- future announcements concerning our business, our technology, our customers or competitors;

- variations in our operating results;
- introduction of new products or changes in product pricing policies by us, its competitors or our customers;
- changes in earnings estimates by securities analysts or announcements of operating results that are not aligned with the expectations of analysts and investors;
- economic and competitive conditions in the industries in which our customers operate; and
- general stock market trends.

In the past, following periods of volatility in the market price of a particular company's securities, securities class action litigation has often been brought against that company. Many technology companies have been subject to this type of litigation. We may also become involved in this type of litigation. Litigation is often expensive and diverts management's attention and resources, which could significantly harm our business, financial condition and results of operations.

THE SEMICONDUCTOR AND SEMICONDUCTOR CAPITAL EQUIPMENT INDUSTRIES ARE HIGHLY VOLATILE AND OUR OPERATING RESULTS ARE AFFECTED TO A LARGE EXTENT BY EVENTS IN THOSE INDUSTRIES.

The semiconductor industry historically has been highly volatile and has experienced periods of oversupply resulting in significantly reduced demand for semiconductor capital equipment. These reductions, in turn, have significantly reduced demand for our systems. During downturns, some of our customers have drastically reduced their orders to us and have implemented substantial cost reduction programs. Sales to customers in the semiconductor capital equipment industry accounted for 61% of our total sales in 1997, 52% in 1998, 65% in 1999 and 70% in the first nine months of 2000. We expect that we will continue to depend significantly on the semiconductor and semiconductor capital equipment industries for the foreseeable future.

A rapid decrease in demand for our products can occur with limited advance notice because we supply subsystems to equipment manufacturers and make a substantial and increasing proportion of our shipments on a just-in-time basis. This decrease in demand can adversely impact our business and financial results disproportionately because of its unanticipated nature.

A SIGNIFICANT PORTION OF OUR SALES ARE CONCENTRATED AMONG A FEW CUSTOMERS.

Our four largest customers accounted for 50% of our total sales in 1997, 46% in 1998, 53% in 1999 and 58% in the first nine months of 2000. Our largest customer accounted for 31% of our total sales in 1997, 24% in 1998, 34% in 1999 and 40% in the first nine months of 2000. The loss of any of these customers or a material reduction in any of their purchase orders would significantly harm our business, financial condition and results of operations.

THE MARKETS IN WHICH WE OPERATE ARE HIGHLY COMPETITIVE.

We face substantial competition, primarily from established companies, some of which have greater financial, marketing and technical resources than we do. Our primary competitors are ENI, a subsidiary of Astec (BSR) plc, Applied Science and Technology (ASTeX), Huettinger, Shindigen, Kyosan, Comdel and Daihen. We expect that our competitors will continue to develop new products in direct competition with ours, improve the design and performance of their systems and introduce new systems with enhanced performance characteristics.

To remain competitive, we need to continue to improve and expand our systems and system offerings. In addition, we need to maintain a high level of investment in research and development and expand our sales and marketing efforts, particularly outside of the United States. We may not be able to make

the technological advances and investments necessary to remain competitive.

New products developed by competitors or more efficient production of their products could increase pressure on the pricing of our systems. In addition, electronics companies, including companies in the semiconductor capital equipment industry, have been facing pressure to reduce costs. Either of these factors may require us to make significant price reductions to avoid losing orders. Further, our current and prospective customers consistently exert pressure on us to lower prices, shorten delivery times and improve the capability of our systems. Failure to respond adequately to such pressures could result in a loss of customers or orders.

WE MAY NOT BE ABLE TO INTEGRATE OUR ACQUISITIONS.

We have experienced significant growth through acquisitions and continue to actively pursue acquisition opportunities. Prior to 1997, we did not make any significant acquisitions. In the three years from 1997 through 1999, we acquired four companies. In the first nine months of 2000, we have acquired or entered into agreements to acquire an additional three companies. Many of our acquisitions to date have been in markets in which we have limited experience. We might not be able to compete successfully in these markets or operate the acquired businesses efficiently.

Our business and results of operations could be adversely affected if integrating our acquisitions results in substantial costs, delays or other operational or financial problems. Further, the increased pace of our acquisitions has required us try to integrate multiple acquisitions simultaneously. This has exponentially increased the demands placed on our management team and has decreased the time and effort that management can give to integrating each acquisition, while continuing to manage our existing business.

Future acquisitions could place additional strain on our operations and management. Our ability to manage future acquisitions will depend on our success in:

- evaluating new markets and investments;
- monitoring operations;
- controlling costs;
- integrating acquired operations and personnel;
- maintaining effective quality controls; and
- expanding our internal management, technical and accounting systems.

Also, in connection with future acquisitions we may issue equity securities which could be dilutive, incur debt, recognize substantial one-time expenses or create goodwill or other intangible assets that could result in significant amortization expense.

WE ARE GROWING AND MAY BE UNABLE TO MANAGE OUR GROWTH EFFECTIVELY.

We have been experiencing a period of growth and expansion. This growth and expansion is placing significant demands on our management and our operating systems. We need to continue to improve and expand our management, operational and financial systems, procedures and controls, including accounting and other internal management systems, quality control, delivery and service capabilities.

In order to manage our growth, we may also need to spend significant amounts of cash to:

- fund increases in expenses;
- acquire additional facilities and equipment;
- take advantage of unanticipated opportunities, such as major strategic

alliances or other special marketing opportunities, acquisitions of complementary businesses or assets, or the development of new products; or

- otherwise respond to unanticipated developments or competitive pressures.

If we do not have enough cash on hand, cash generated from our operations or cash available under our credit facility to meet these cash requirements, we will need to seek alternative sources of financing to carry out our growth and operating strategies. We may not be able to raise needed cash on terms acceptable to us, or at all. Financings may be on terms that are dilutive or potentially dilutive. If alternative sources of financing are required but are insufficient or unavailable, we will be required to modify our growth and operating plans to the extent of available funding.

SHORTAGES OF COMPONENTS NECESSARY FOR OUR PRODUCT ASSEMBLY CAN DELAY OUR SHIPMENTS.

Manufacturing our power conversion and control systems requires numerous electronic components. Dramatic growth in the electronics industry has significantly increased demand for these components, particularly in the second and third quarters of 2000. This demand has resulted in periodic shortages and allocations of needed components, and we expect to experience additional shortages and allocations from time to time. Shortages and allocations could cause shipping delays for our systems, adversely affecting our results of operations. Shipping delays also could damage our relationships with current and prospective customers.

OUR DEPENDENCE ON SOLE AND LIMITED SOURCE SUPPLIERS COULD AFFECT OUR ABILITY TO MANUFACTURE PRODUCTS AND SYSTEMS.

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

- the potential inability to obtain an adequate supply of required components;
- reduced control over pricing and timing of delivery of components; and
- the potential inability of our suppliers to develop technologically advanced products to support our growth and development of new systems.

We believe that in time we could obtain and qualify alternative sources for most sole and limited source parts or could manufacture the parts ourselves. Seeking alternative sources or commencing internal manufacture of the parts could require us to redesign our systems, resulting in increased costs and likely shipping delays. We may be unable to manufacture the parts internally or redesign our systems, which could result in further costs and shipping delays. These increased costs would decrease our profit margins if we could not pass the costs to our customers. Further, shipping delays could damage our relationships with current and potential customers and have a material adverse effect on our business and results of operations.

WE ARE HIGHLY DEPENDENT ON OUR INTELLECTUAL PROPERTY BUT MAY NOT BE ABLE TO PROTECT IT ADEQUATELY.

Our success depends in part on our proprietary technology. We attempt to protect our intellectual property rights through patents and non-disclosure agreements. However, we might not be able to protect our technology, and competitors might be able to develop similar technology independently. In addition, the laws of certain foreign countries might not afford our intellectual property the same protection as do the laws of the United States. For example, our intellectual property is not protected by patents in several countries in which we do business, and we have limited patent protection in certain other countries. The costs of applying for patents in foreign countries

and translating the applications into foreign languages require us to select carefully the inventions for which we apply for patent protection and the countries in which we seek such protection. Generally, we have concentrated our efforts to obtain international patents in the United Kingdom, Germany, France, Italy and Japan because there are other manufacturers and developers of power conversion and control systems in those countries, as well as customers for those systems. Our inability or failure to obtain adequate patent protection in a particular country could have a material adverse effect on our ability to compete effectively in that country.

Our patents also might not be sufficiently broad to protect our technology, and any existing or future patents might be challenged, invalidated or circumvented. Additionally, our rights under our patents may not provide meaningful competitive advantages.

We do not believe that any of our products are infringing any patents or proprietary rights of others, although infringements may exist or might occur in the future. Litigation may be necessary to enforce patents issued to us, to protect our trade secrets or know-how, to defend ourselves against claimed infringement of the rights of others or to determine the scope and validity of the proprietary rights of others. Litigation could result in substantial cost and diversion of our efforts. Moreover, an adverse determination in any litigation could cause us to lose proprietary rights, subject us to significant liabilities to third parties, require us to seek licenses or alternative technologies from others or prevent us from manufacturing or selling our products. Any of these events could have a material adverse effect on our business, financial condition and results of operations.

WE MUST CONSTANTLY DEVELOP AND SELL NEW SYSTEMS IN ORDER TO KEEP UP WITH RAPID TECHNOLOGICAL CHANGES.

The markets for our systems and the markets in which our customers compete are characterized by ongoing technological developments and changing customer requirements. We must continue to improve existing systems and to develop new systems that keep pace with technological advances and meet the needs of our customers in order to succeed. We might not be able to continue to improve our systems or develop new systems. The systems we do develop might not be cost-effective or introduced in a timely manner. Developing and introducing new systems may involve significant and uncertain costs. Our business, financial condition and results of operations, as well as our customer relationships, could be adversely affected if we fail to develop or introduce improved systems and new systems in a timely manner.

WE MUST ACHIEVE DESIGN WINS TO RETAIN OUR EXISTING CUSTOMERS AND TO OBTAIN NEW CUSTOMERS.

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

We typically must customize our systems for particular customers to use in their equipment to achieve design wins. This customization increases our research and development expenses and can strain our engineering and management resources. These investments do not always result in design wins.

Once a manufacturer chooses a power conversion and control system for use in a particular product, it is likely to retain that system for the life of that product. Our sales and growth could experience material and prolonged adverse effects if we fail to achieve design wins. In addition, design wins do not always result in substantial sales or profits.

We believe that equipment manufacturers often select their suppliers based

on factors such as long-term relationships. Accordingly, we may have difficulty achieving design wins from equipment manufacturers who are not currently customers. In addition, we must compete for design wins for new systems and products of our existing customers, including those with whom we have had long-term relationships.

OUR EFFORTS TO BE RESPONSIVE TO CUSTOMERS MAY LEAD TO THE INCURRENCE OF COSTS THAT ARE NOT READILY RECOVERABLE.

We may incur manufacturing overhead and other costs, many of which are fixed, to meet anticipated customer demand. Accordingly, operating results could be adversely affected if orders or revenues in a particular period or for a particular system do not meet expectations.

We often require long lead times for development of our systems during which times we must expend substantial funds and management effort. We may incur significant development and other expenses as we develop our systems without realizing corresponding revenue in the same period, or at all.

OUR SUCCESS DEPENDS UPON OUR ABILITY TO ATTRACT AND RETAIN KEY PERSONNEL.

Our success depends upon the continued efforts of our senior management team and our technical, marketing and sales personnel. These employees may voluntarily terminate their employment with us at any time. Our success also depends on our ability to attract and retain additional highly qualified management, technical, marketing and sales personnel. The process of hiring employees with the combination of skills and attributes required to carry out our strategy can be extremely competitive and time-consuming. We may not be able to successfully retain existing personnel or identify, hire and integrate new personnel. If we lose the services of key personnel for any reason, including retirement, or are unable to attract additional qualified personnel, our business, financial condition and results of operations could be materially and adversely affected.

WE CONDUCT MANUFACTURING AT ONLY A FEW SITES AND OUR SITES ARE NOT GENERALLY INTERCHANGEABLE.

We conduct the majority of our manufacturing at our facilities in Fort Collins, Colorado and Voorhees, New Jersey. We also conduct manufacturing in Austin, Texas, Fridley, Minnesota, San Jose, California and Vancouver, Washington. Each facility generally manufactures different systems. In July 1997, a severe rainstorm in Fort Collins caused substantial damage to our Fort Collins facilities and to some equipment and inventory. The damage caused us to stop manufacturing at that facility temporarily and prevented us from resuming full production there until September 1997. Our insurance policies did not cover all of the costs that we incurred in connection with the rainstorm. Future natural or other uncontrollable occurrences at any of our manufacturing facilities that negatively impact our manufacturing processes may not be fully covered by insurance and could cause significant harm to our operations and results of operations.

WE MIGHT NOT BE ABLE TO COMPETE SUCCESSFULLY IN INTERNATIONAL MARKETS OR TO MEET THE SERVICE AND SUPPORT NEEDS OF OUR INTERNATIONAL CUSTOMERS.

Our customers increasingly require service and support on a worldwide basis as the markets in which we compete become increasingly globalized. We maintain sales and service offices in Germany, Japan, South Korea, the United Kingdom, and Taiwan.

Sales to customers outside the United States accounted for 22% of our total sales in 1997, 27% in 1998, 27% in 1999 and 28% in the first nine months of 2000, and we expect international sales to continue to represent a significant portion of our future sales. International sales are subject to various risks, including:

- currency fluctuations;

- governmental controls;
- political and economic instability;
- barriers to entry;
- trade restrictions;
- changes in tariffs and taxes; and
- longer payment cycles.

In particular, the Japanese market has historically been difficult for non-Japanese companies, including us, to penetrate.

Providing support services for our systems on a worldwide basis also is subject to various risks, including:

- our ability to hire qualified support personnel;
- maintenance of our standard level of support; and
- differences in local customers and practices.

Our international activities are also subject to the difficulties of managing overseas distributors and representatives and managing foreign subsidiary operations.

We might not be successful in addressing any of these risks.

FLUCTUATIONS IN THE CURRENCY EXCHANGE RATE BETWEEN THE U.S. DOLLAR AND FOREIGN CURRENCIES COULD ADVERSELY AFFECT OUR OPERATING RESULTS.

A portion of our sales is subject to currency exchange risks as a result of our international operations. We have experienced fluctuations in foreign currency exchange rates, particularly against the Japanese yen. Beginning in 1997, we entered into various forward foreign exchange contracts as a hedge against currency fluctuations in the yen. We have not employed hedging techniques with respect to any other currencies. Our current or any future hedging techniques might not protect us adequately against sudden or substantial currency fluctuations.

WE MUST MAINTAIN MINIMUM LEVELS OF CUSTOMIZED INVENTORY TO SUPPORT CERTAIN CUSTOMER DELIVERY REQUIREMENTS.

We must keep a relatively large number and variety of customized systems in our inventory to meet client delivery requirements because a substantial proportion of our business involves the just-in-time shipment of systems. Our inventory may become obsolete as we develop new systems and as our customers develop new systems. Inventory obsolescence could have a material adverse effect on our financial condition and results of operations.

WE ARE SUBJECT TO NUMEROUS GOVERNMENTAL REGULATIONS.

We are subject to federal, state, local and foreign regulations, including environmental regulations and regulations relating to the design and operation of our power conversion and control systems. We must ensure that our systems meet certain safety and emissions standards, many of which vary across the states and countries in which our systems are used. For example, the European Union has published directives specifically relating to power supplies. We must comply with these directives in order to ship our systems into countries that are members of the European Union. In the past, we have invested significant resources to redesign our systems to comply with these directives. We believe we are in compliance with current applicable regulations, directives and standards and have obtained all necessary permits, approvals and authorizations to conduct our business. However, compliance with future regulations, directives and standards could require us to modify or redesign certain systems, make capital

expenditures or incur substantial costs. If we do not comply with current or future regulations, directives and standards:

- we could be subject to fines;
- our production could be suspended; or
- we could be prohibited from offering particular systems in specified markets.

WE INVEST IN START-UP COMPANIES AND COULD LOSE OUR ENTIRE INVESTMENT.

We have invested in start-up companies, and may invest in other start-up companies, that develop products and technologies which we believe may provide us with future benefits. These investments may not provide us with any benefit, and we may not achieve any economic return on any of these investments. Our investments in these start-up companies are subject to all of the risks inherent in investing in companies that are not established. We could lose all or any part of our investments in these companies.

WE LEASE OUR FORT COLLINS, COLORADO FACILITIES AND A CONDOMINIUM FROM ENTITIES IN WHICH TWO INDIVIDUALS WHO ARE INSIDERS AND MAJOR STOCKHOLDERS HAVE FINANCIAL INTERESTS.

We lease our executive offices and manufacturing facilities in Fort Collins, Colorado from Prospect Park East Partnership and from Sharp Point Properties, LLC. Douglas S. Schatz, our Chairman and Chief Executive Officer, holds a 26.7% interest in each of the leasing entities. G. Brent Backman, a member of our board of directors, holds a 6.6% interest in each of the leasing entities. Aggregate rental payments under such leases for 1999 totaled approximately \$1.7 million. We also lease a condominium in Breckenridge, Colorado to provide rewards and incentives to our customers, suppliers and employees. We lease the condominium from AEI Properties, a partnership in which Mr. Schatz holds a 60% interest and Mr. Backman holds a 40% interest. Aggregate rental payments under the condominium lease for 1999 totaled approximately \$36,000. As of October 27, 2000, Mr. Schatz owns approximately 35% of our common stock, and Mr. Backman owns approximately 4% of our common stock.

RISKS RELATED TO OUR COMMON STOCK

THE MARKET PRICE OF OUR STOCK HAS BEEN AND WILL LIKELY CONTINUE TO BE HIGHLY VOLATILE.

The stock market generally and the market for technology stocks in particular have experienced significant price and volume fluctuations, which often have been unrelated or disproportionate to the operating performance of such companies. From our IPO in November 1995 through October 27, 2000, the closing prices of our common stock on the Nasdaq National Market have ranged from \$3.50 to \$73.25. The market for our common stock likely will continue to be subject to similar fluctuations. Many factors could cause the trading price of our common stock to fluctuate substantially, including the following:

- future announcements concerning our business, our customers or our competitors;
- variations in our operating results;
- announcements of technological innovations;
- introduction of new products or changes in product pricing policies by us, our competitors or our customers;
- changes in earnings estimates by securities analysts or announcements of operating results that are not aligned with the expectations of analysts and investors;
- economic and competitive conditions in the industries in which our

customers operate; and

- general stock market trends.

OUR EXECUTIVE OFFICERS AND DIRECTORS OWN A SIGNIFICANT PERCENTAGE OF OUR OUTSTANDING COMMON STOCK, WHICH COULD ENABLE THEM TO CONTROL OUR BUSINESS AND AFFAIRS.

Our executive officers and directors owned approximately 41% of our outstanding common stock outstanding as of October 27, 2000. Douglas S. Schatz, our Chairman and Chief Executive Officer, owned approximately 35% of our common stock outstanding as of October 27, 2000. These stockholdings give our executive officers and directors collectively, and Mr. Schatz individually, significant voting power. Depending on the number of shares that abstain or otherwise are not voted on a particular matter, our executive officers and directors collectively, and Mr. Schatz individually, may be able to elect all of the members of our board of directors and to control our business and affairs for the foreseeable future.

ANTI-TAKEOVER PROVISIONS LIMIT THE ABILITY OF A PERSON OR ENTITY TO ACQUIRE CONTROL OF US.

Our certificate of incorporation and bylaws include provisions which:

- allow the board of directors to issue preferred stock with rights senior to those of the common stock without any vote or other action by the holders of the common stock;
- limit the right of our stockholders to call a special meeting of stockholders; and
- impose procedural and other requirements that could make it difficult for stockholders to effect certain corporate actions.

In addition, we are subject to the anti-takeover provisions of the Delaware General Corporation Law. Any of these provisions could delay or prevent a person or entity from acquiring control of us. The effect of these provisions may be to limit the price that investors are willing to pay in the future for our securities. These provisions might also discourage potential acquisition proposals or could diminish the opportunities for our stockholders to participate in a tender offer, even if the acquisition proposal or tender offer is at a price above the then current market price for our common stock.

CAUTIONARY NOTE ON FORWARD-LOOKING STATEMENTS

Some of the statements contained in or incorporated by reference in this prospectus discuss our plans and strategies for our business or make other forward-looking statements, as this term is defined in the Private Securities Litigation Reform Act. The words "anticipates", "believes", "estimates", "expects", "plans", "intends" and similar expressions are intended to identify these forward-looking statements, but are not the exclusive means of identifying them. These forward-looking statements reflect the current views of our management. However, various risks, uncertainties and contingencies could cause our actual results, performance or achievements to differ materially from those expressed in, or implied by, these statements, including the following:

- the success or failure of our efforts to implement our business strategy; and
- the other risks and uncertainties discussed under the heading "Risk Factors" and elsewhere in this prospectus and in the documents incorporated by reference.

We do not have any obligation to update publicly any forward-looking statements, whether as a result of new information, future events or otherwise. You should carefully consider the information set forth under the heading "Risk Factors" and elsewhere in this prospectus and in the documents incorporated by

reference. In light of these risks, uncertainties and assumptions, the forward-looking events discussed in, implied by or incorporated by reference in this prospectus might not occur.

USE OF PROCEEDS

All of the shares of our common stock are being sold by the selling stockholders. We will not receive any proceeds from the sale of these shares.

SELLING STOCKHOLDERS

The following table sets forth the names of the selling stockholders and the number of shares being registered for sale as of the date of the prospectus and sets forth the number of shares of common stock known by us to be beneficially owned by each of the selling stockholders as of October 27, 2000. None of the selling stockholders has had a material relationship with Advanced Energy within the past three years other than as a result of the ownership of the shares or other securities of Advanced Energy and, with the exception of Y.O. Systems, Inc., as employees of Sekidenko, a subsidiary of Advanced Energy. The shares offered by this prospectus may be offered from time to time by the selling stockholders.

Pursuant to the acquisition of Sekidenko on August 18, 2000, we issued 2,100,000 shares of common stock to the selling stockholders. As part of the acquisition, we undertook a contractual obligation, by the terms of the Agreement and Plan of Reorganization, to file a registration statement covering the resale of the shares issued in the acquisition by filing of a Form S-3 with the Securities and Exchange Commission.

The selling stockholders have entered into an Escrow and Indemnity Agreement with Advanced Energy, dated August 18, 2000, under which the shares being registered may only be offered, pledged, transferred, sold or otherwise disposed of according to the following schedule: 90% as of the date that Advanced Energy files its Form 10-Q for the quarter ending September 30, 2000 and 10% as of August 18, 2001 if there are no claims under the indemnity provisions of the Escrow Agreement.

All information contained in the table below is based upon information provided to us by the selling stockholders, and we have not independently verified this information. We are not able to estimate the amount of shares that will be held by the selling stockholders after the completion of this offering because the selling stockholders may offer all or some of their shares and because there currently are no agreements, arrangements or understandings with respect to the sale of any of their shares. The following table assumes that all of the shares being registered will be sold. The selling stockholders are not making any representation that any shares covered by the prospectus will be offered for sale. The selling stockholders reserve the right to accept or reject, in whole or in part, any proposed sale of shares.

Name -----	Number of Shares Beneficially Owned -----	Number of Shares Registered -----
Ray R. Dils	1,411,410	1,411,410
Y.O. Systems, Inc.	420,000	420,000
Anelyn Becker (1)	2,100	2,100
Glenn Berry (1)	4,935	4,935
Edmun Chau (1)	9,870	9,870
Cora C. Coughlin (1)	1,260	1,260
Steven Coutinho (1)	52,500	52,500
Marla Dils (1)	9,870	9,870
Richard J. Farmer (1)	8,400	8,400
Chuck Gooding (1)	63,000	63,000
Mark A. Hatzenbuehler (1)	6,300	6,300
Thomas Haw (1)	8,400	8,400
Wieslaw Jedzrejewski (1)	5,040	5,040

Gary K. Kercheck (1)	8,400	8,400
Gina Marquart (1)	2,940	2,940
Jerry Mattison (1)	4,935	4,935
Nathan R. McClellan (1)	3,360	3,360
William McDonnell (1)	9,870	9,870
Loren Morris (1)	8,400	8,400
Thao Nguyen (1)	9,870	9,870
Brian Patterson (1)	4,200	4,200
Steven S. Peters (1)	6,300	6,300
Bill Pfeifer (1)	4,200	4,200
Michelle Robinson (1)	3,360	3,360
Jane Sliger (1)	6,300	6,300
Kelly Spurling (1)	9,870	9,870
Theresa A. Vandehey (1)	5,040	5,040
Mary Wiens (1)	9,870	9,870

(1) The number of shares reported for each of these selling stockholders are held of record by Curt Gleaves, Trustee under Trust Agreement dated August 18, 2000. The selling stockholder has an option to purchase from this trust the number of shares reported and has the right to vote the shares.

This prospectus also covers any additional shares of common stock that become issuable in connection with the shares being registered by reason of any stock dividend, stock split, recapitalization or other similar transaction effected without the receipt of consideration which results in an increase in the number of our outstanding shares of common stock.

PLAN OF DISTRIBUTION

We are registering the 2,100,000 shares on behalf of the selling stockholders. As used herein, "selling stockholders" includes donees and pledgees selling shares received from a named Selling Stockholder after the date of this prospectus. All costs, expenses and fees in connection with the registration of the shares offered hereby will be borne by us. Brokerage commissions and similar selling expenses, if any, attributable to the sale of shares will be borne by the selling stockholders. Sales of shares may be effected by selling stockholders from time to time in one or more types of transactions (which may include block transactions) on the NYSE, in the over-the-counter market, in negotiated transactions, through put or call options transactions relating to the shares, through short sales of shares, or a combination of such methods of sale, at market prices prevailing at the time of sale, or at negotiated prices. Such transactions may or may not involve brokers or dealers. We have not been advised by the selling stockholders of any agreements, understandings or arrangements that they may have entered into with any underwriters or broker-dealers regarding the sale of their securities, nor are we aware of any underwriter or coordinating broker acting in connection with the proposed sale of shares by selling stockholders.

The Selling Stockholders may sell their shares directly to purchasers or to or through broker-dealers, which may act as agents or principals. Such broker-dealers may receive compensation in the form of discounts, concessions, or commissions from the selling stockholders and/or the purchasers of shares for whom such brokers-dealers may act as agents or to whom they sell as principal, or both (which compensation as to a particular broker-dealer might be in excess of customary commissions.)

The selling stockholders and any broker-dealers that act in connection with the sale of shares might be deemed to be "underwriters" within the meaning of

Section 2(11) of the Securities Act, and any commissions received by such broker-dealers and any profit on the resale of the shares sold by them while acting as principals might be deemed to be underwriting discounts or commissions under the Securities Act. We have agreed to indemnify each selling stockholder against certain liabilities, including liabilities arising under the Securities Act. The selling stockholders may agree to indemnify any agent, dealer or broker-dealer that participates in transactions involving sales of the shares

against certain liabilities, including liabilities arising under the Securities Act.

Because selling stockholders may be deemed to be "underwriters" within the meaning of Section 2(11) of the Securities Act, the selling stockholders will be subject to the prospectus delivery requirements of the Securities Act. Selling stockholders also may resell all or a portion of the shares in open market transactions in reliance upon Rule 144 under the Securities Act, provided they meet the criteria and conform to the requirements of such Rule.

Upon the Company being notified by a selling stockholder that any material arrangement has been entered into with a broker-dealer for the sale of shares through a block trade, special offering, exchange distribution or secondary distribution or a purchase by a broker or dealer, a supplement to this prospectus will be filed, if required, pursuant to Rule 424(b) under the Act, disclosing (i) the name of such selling stockholder and of the participating broker-dealer(s), (ii) the number of shares involved, (iii) the price at which such shares were sold, (iv) the commissions paid or discounts or concessions allowed to such broker-dealer(s), where applicable, (v) that such broker-dealer(s) did not conduct any investigation to verify the information set out or incorporated by reference in this prospectus and (vi) other facts material to the transaction. In addition, upon the company being notified by a selling stockholder that a donee or pledgee intends to sell more than 500 shares, a supplement to this prospectus will be filed.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the Securities and Exchange Commission a Registration Statement on Form S-3 under the Securities Act of 1933, relating to the common stock being offered. This prospectus is filed as part of the registration statement. Other parts of the registration statement are omitted from this prospectus. Statements made in this prospectus concerning the contents of any contract or other document are not necessarily complete. For a more complete description of the matter involved, you should read the entire contract or other document, which has been filed as an exhibit to the registration statement.

We are required by the Securities Exchange Act of 1934 to file reports, proxy statements and other information with the SEC. You may read and copy such reports, proxy statements and other information at the SEC's public reference facilities:

Washington D.C. -----	New York -----	Chicago -----
Judiciary Plaza	Seven World Trade Center	Citicorp Center

450 Fifth Street, N.W. Suite 1300 500 West Madison Street Room 1024 New York, NY 10048 Suite 1400 Washington, D.C. 20549 Chicago, IL 60661-2511

You may call 1-800-SEC-0330 for further information about the public reference facilities. For a fee, the SEC will send copies of any of our filings to you. In addition, our filed reports, proxy statements and other information are contained in the Internet web site maintained by the SEC. The address of that site is <http://www.sec.gov>.

Our common stock is quoted on the Nasdaq National Market under the symbol "AEIS". Our SEC filings can be read at the following Nasdaq address:

Nasdaq Operations 1735 K Street, N.W.

Washington, D.C. 20006

INCORPORATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means we can disclose important information to you by referring you to

those documents. The information incorporated by reference is considered to be a part of this prospectus, and information that we later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below and any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 until all of the securities registered in this offering are sold:

1. Our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2000 and June 30, 2000 and September 30, filed April 18, 2000, August 4, 2000 and October 30, 2000 respectively (File #000-26966).
2. Our Annual Report on Form 10-K for the year ended December 31, 1999, filed March 20, 2000 (File #000-26966).
3. The description of our common stock contained in our Registration Statement on Form 8-A filed October 12, 1995, and any amendment or report filed for the purpose of updating such description.
4. Our Current Report on Form 8-K, dated August 18, 2000, as amended on September 19, 2000 (File No. 000-26966).

You may request a copy of these filings, at no cost, by calling Investor Relations at (970) 221-4670 or by writing us at the following address:

Advanced Energy Industries, Inc. 1625 Sharp Point Drive Fort Collins, Colorado 80525 Attention: Cathy Kawakami

LEGAL MATTERS

The validity of the common stock will be passed upon for us by Thelen Reid & Priest LLP, San Francisco, California.

EXPERTS

The financial statements and schedules incorporated by reference in this prospectus have been audited by Arthur Andersen LLP, independent public accountants, as set forth in their reports as of and for the years ended December 31, 1999 and 1998. In the report for the year ended December 31, 1997, that firm states that with respect to certain subsidiaries its opinion is based on the reports of other independent public accountants. The financial statements and supporting schedules referred to above have been incorporated by reference herein in reliance upon the authority of those firms as experts in giving said reports.